

1995-96 *General Catalog*



SAN DIEGO STATE UNIVERSITY

THE CALIFORNIA STATE UNIVERSITY

General Catalog

and

Announcement of Courses

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Volume 82

1995-1996

San Diego State University
5500 Campanile Drive
San Diego, California 92182
(619) 594-5200

Dear Student,

Welcome to San Diego State University!

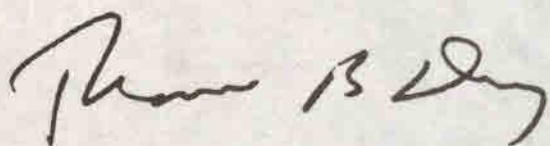
I would like to emphasize my pleasure that you have chosen SDSU as the place to pursue higher education. I would also like to let you know that this is your University, and that we are here to serve your educational needs.

Understanding how your University works will help you tremendously during your stay. This catalog will provide you with many answers to your questions about SDSU – from course descriptions to academic requirements to University services. It will also help to guide you as you make important choices during your educational experience.

SDSU is one of the finest comprehensive universities in the nation. We are unique in our educational approach, with a respected faculty providing excellent classroom teaching combined with top-notch research and scholarship. You as a student will benefit greatly from this approach. The emphasis on teaching is a reflection of our beginnings as a teacher's college in 1897 – a tradition which carries on through today.

By offering a total of 140 bachelor's, master's and doctoral degrees, SDSU will provide you with a diverse and well-balanced education. Most importantly, your University will prepare you for the challenges that await you in your career and into the future. Our proof is in the tens of thousands of people who have graduated from SDSU, many of whom have gone on to world-renowned successes.

SDSU has much to offer. You are here to pursue your educational dreams. We are here to make those dreams come true. I wish you a most pleasant and rewarding experience here, at *your* University.



Thomas B. Day
President

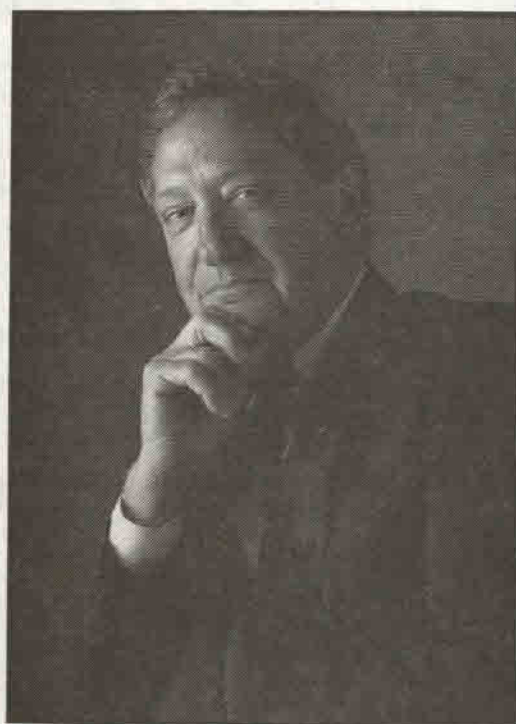


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Annual Calendar

CALENDAR 1995																				
JANUARY							FEBRUARY							MARCH						
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CALENDAR 1996																				
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27	28	29	30	31			24	25	26	27	28	29	30	29	30	31				

1995-1996

Academic Calendar

SUMMER SESSIONS 1995*

May 30-June 16	Term A (3 weeks).
May 30-June 23	Term B (4 weeks).
May 30-July 7	Term C (6 weeks).
May 30-August 18	Term Z (12 weeks).
June 19-July 21	Term D (5 weeks).
June 19-July 28	Term E (6 weeks).
June 19-August 11	Term F (8 weeks).
July 4	Holiday - Independence Day. Staff holiday (no classes).
July 10-August 18	Term G (6 weeks).
July 31-August 18	Term H (3 weeks).

FALL SEMESTER 1995

August 1	Applications for admission or readmission to San Diego State University for the spring semester 1996 accepted. Applications are accepted after August 31 only until enrollment quotas are met. Graduate applicants should consult the Graduate Bulletin for closing dates.
August 21	First day of fall semester. Opening date of the academic year for faculty.
August 22-25	Orientation and advising days.
August 24-25	Testing and advising days.
August 25	Deadline for submission of transcripts to the Office of Admissions and Records for transfer credits to be applied to Spring 1996 registration.
August 28	First day of classes.
Aug. 28-Sept. 11	Late Registration.
September 4	Holiday - Labor Day. Staff holiday (no classes).
September 11	Last day to drop classes.
September 12	Last day to apply for refunds.
September 15	Last day to apply for request to enroll for concurrent master's degree credit.
September 18	Last day to add classes, change grading basis, or apply for course "forgiveness."
September 18	Last day to withdraw officially from the University for fall semester 1995.
September 22	Last day to file application for bachelor's degree for December 1995 graduation.
September 25	Census.
November 1	Applications for admission or readmission to San Diego State University for the fall semester 1996 accepted. Applications are accepted after November 30 (postmarked) only until enrollment quotas are met. Graduate applicants should consult the Graduate Bulletin for closing dates.
November 23-25	Holiday - Thanksgiving recess. Staff holiday (no classes).
December 8	Last day of classes before final examinations.
December 9-16	Final examinations.
December 18	Winter recess begins.
December 21-27	Holiday - Winter recess. Staff holiday (no classes).
December 28	Grades due from instructors. (Noon deadline.)
December 28	Last day to apply for a leave of absence for fall semester 1995.
December 28	Last day of fall semester.
January 1	Holiday - New Year's. Staff holiday (no classes).

WINTER SESSION 1996*

January 2-19	Winter Session.
January 15	Holiday - Martin Luther King, Jr. Day. Staff holiday (no classes).

SPRING SEMESTER 1996

January 15	Holiday - Martin Luther King, Jr. Day. Staff holiday (no classes).
January 22	First day of spring semester. Opening date of semester for faculty.
January 22-26	Orientation and advising days.
January 25-26	Testing and advising days.
January 29	First day of classes.
Jan. 29-Feb. 9	Late Registration.
February 1	Applications for bachelor's degree for December 1996 graduation accepted.
February 9	Last day to drop classes.
February 12	Last day to apply for refunds.
February 12	Last day to file application for bachelor's degree for May and August 1996 graduation.
February 16	Last day to add classes, change grading basis, or apply for course "forgiveness."
February 16	Last day to withdraw officially from the University for spring semester 1996.
February 16	Last day to file petition for concurrent master's degree credit for spring semester 1996.
February 23	Census.
March 14	Deadline for submission of transcripts to the Office of Admissions and Records for transfer credits to be applied to Fall 1996 registration.
March 30	Last day of classes before spring recess.
April 1-6	Spring recess.
April 8	Classes resume.
May 16	Last day of classes before final examinations.
May 17	Study and consultation day.
May 18-25	Final examinations.
May 25-26	Commencement.
May 27	Holiday - Memorial Day. Staff holiday (no classes).
May 30	Grades due from instructors. (Noon deadline.)
May 30	Last day to apply for a leave of absence for spring semester 1996.
May 30	Last day of spring semester.
July 1	Applications for bachelor's degree for May and August 1997 graduation accepted.

SUMMER SESSIONS 1996*

May 28-June 14	Term A (3 weeks).
May 28-June 21	Term B (4 weeks).
May 28-July 5	Term C (6 weeks).
May 28-August 16	Term Z (12 weeks).
June 17-July 19	Term D (5 weeks).
June 17-July 26	Term E (6 weeks).
June 17-August 9	Term F (8 weeks).
July 4	Holiday - Independence Day. Staff holiday (no classes).
July 8-August 16	Term G (6 weeks).
July 29-August 16	Term H (3 weeks).

* Refer to the Summer and Winter Sessions bulletin for a list of courses offered during summer and winter. Offerings in some departments are limited.

(Please Note: This is not to be construed as an employee work calendar.)

Schedule of Fees

1995-1996

Fees and tuition are subject to change without notice by the Trustees of The California State University.

For updated information regarding the fee structure for 1995-96 refer to the fall Class Schedule.

FEES MUST BE PAID PRIOR TO CALLING REGLINE. CHECKS ACCEPTED FOR EXACT AMOUNT OF FEES. OVERPAYMENTS OF \$5.00 OR LESS ARE REFUNDED ONLY UPON REQUEST. IF YOUR CHECK IS RETURNED BY THE BANK FOR ANY REASON, YOUR REGISTRATION MAY BE CANCELED AND YOU WILL BE BILLED \$40.00 (a dishonored payment charge of \$20.00 and late fee of \$20.00). PAYMENT OF FEES FOR REGLINE OR LATE REGISTRATION SHOULD BE MADE BY CHECK OR MONEY ORDER. THE UNIVERSITY RESERVES THE RIGHT TO REFUSE PAYMENT BY PERSONAL CHECK FROM THOSE INDIVIDUALS WHO HAVE PREVIOUSLY HAD ITEMS RETURNED UNPAID BY THEIR BANK. REFUNDS MAY BE APPLIED AGAINST OTHER AMOUNTS DUE THE UNIVERSITY. CHECKS TO BE MADE PAYABLE TO SDSU. DO NOT ENCLOSE CASH. (MASTERCARD/VISA IS NOT ACCEPTED FOR PAYMENT OF REGISTRATION FEES, NON-RESIDENT (FOREIGN AND OUT-OF-STATE) TUITION, OR DUPLICATE DEGREE TUITION.)

ADMINISTRATIVE/FINANCIAL HOLDS

All administrative and financial holds must be cleared prior to submittal of payment for registration or other University services. See "Debts Owed to the Institution" below. Acceptance of payment by the University does not constitute completion of registration or guarantee of services if any kind of administrative or financial hold exists.

Payments to clear financial holds must be made by cash, money order, or certified check. Personal checks or charge cards will NOT be accepted.

REGISTRATION FEES - ALL STUDENTS:

(On basis of units carried.)

Fee payment information and instructions are in the Class Schedule available at the campus bookstore.

Auditors pay same fees as students carrying courses for credit. Nonresident (foreign and out-of-state) and duplicate degree students pay additional fees—see information below. Thesis extension and other zero unit courses are charged as one unit for fee purposes.

Units Attempted	Registration Fee
0 units - 6.0 units	\$618.00
6.1 or more units	\$951.00

The above fee also includes a Student Activity Fee of \$15.00, a Student Union Fee of \$71.00, a Facilities Fee of \$3.00, an Instructionally Related Activities Fee of \$15.00, a Health Services Fee of \$55.00, and a State University Fee of either \$459.00 or \$792.00, depending on unit load.

Imperial Valley Campus students pay a Student Union Fee of \$24.00 and a Health Services fee of \$10.00. See Imperial Valley Campus bulletin for details.

The total fee paid per term will be determined by the number of units taken, including those in excess of fifteen.

No fees of any kind shall be required of or collected from those individuals who qualify for such exemption under the provisions of the Alan Pattee Scholarship Act.

Legal residents of California are not charged out-of-state tuition.

REGISTRATION INSTALLMENT PAYMENT PLAN

An installment payment plan is available for students who wish to pay their registration fees in two payments. There is a \$33.00 service charge for this service, paid at the time the initial registration payment is made. Additional information and instructions are available in the Class Schedule or may be obtained from the University Cashiers Office.

TUITION FOR NONRESIDENT STUDENT (Foreign and Out-of-State)

Tuition will be charged for all units attempted.
Per unit \$246.00
(Tuition is payable in addition to registration fees listed above. For fee-paying purposes, zero unit and half-unit courses are counted as one unit. See **Liability for Payment** section for additional important information.)

Health insurance (mandatory for foreign students)
Per year, approximately \$580.00

DUPLICATE DEGREE TUITION

The California State University is required by state law to charge duplicate degree tuition to any student who has earned a degree equivalent to or higher than the degree awarded by the program in which the student is enrolled or who has earned a baccalaureate or postbaccalaureate degree and is enrolled without a declared degree objective. Consult the Graduate Division for clarification of equivalency of degrees.

The following categories are exempted from Duplicate Degree Tuition.

1. A dislocated worker as certified by a state agency in accordance with Title 3 of the Federal Job Training Partnership Act.
2. A displaced homemaker as defined in accordance with the Higher Education Act of 1965, as amended (20 U.S.C. 1001 et seq.).
3. A person who is an enrollee in any program leading to a credential or certificate that has been approved by the Commission on Teacher Credentialing.
4. A recipient of benefits under the Aid to Families with Dependent Children program, the Supplementary Security Income or State Supplementary Program, or a general assistance program.
5. A nonresident student except those for whom nonresident tuition has been waived.
6. A California resident who is sixty years of age or older.
7. Children and dependents of deceased or disabled veterans who are eligible for a fee waiver under the provisions of the State of California Military and Veterans Code, Sections 890-980 and/or the California Educational Code, Section 32320.
8. Children of deceased law enforcement or fire suppression prevention employees.

* Signed affidavit of eligibility required; contact University Cashier's Office.

Duplicate degree tuition, per unit, up to a maximum of \$2,250 per semester \$150.00

Students who pay duplicate degree tuition do not pay the State University Fee, but do pay campus fees of \$159.00.

TUITION INSTALLMENT PAYMENT PLAN

A tuition installment payment plan is available for students required to pay nonresident (foreign and out-of-state) or duplicate degree tuition. Tuition normally must be paid prior to the first day of classes. Students who wish to pay their tuition in installments must sign an installment agreement at the University Cashiers Office prior to the first day of class. A service charge equal to 15 percent of each installment payment is required. Additional information may be obtained from the University Cashiers Office.

PARKING FEES

Nonreserved parking space, per semester \$72.00
Car pool—see Cashiers Office.

Less than four-wheeled, self-propelled vehicle (motorcycle, moped) 18.00
Section 42201 of Title V, California Code of Regulations, provides for the waiver of campus parking fees for students with disabilities who have been issued a DMV placard or license plate, and who meet low income requirements. For further information regarding eligibility contact the Disabled Student Services Office (Student Services Building, Room 1661).

MISCELLANEOUS FEES

(Fees payable when service is rendered.)

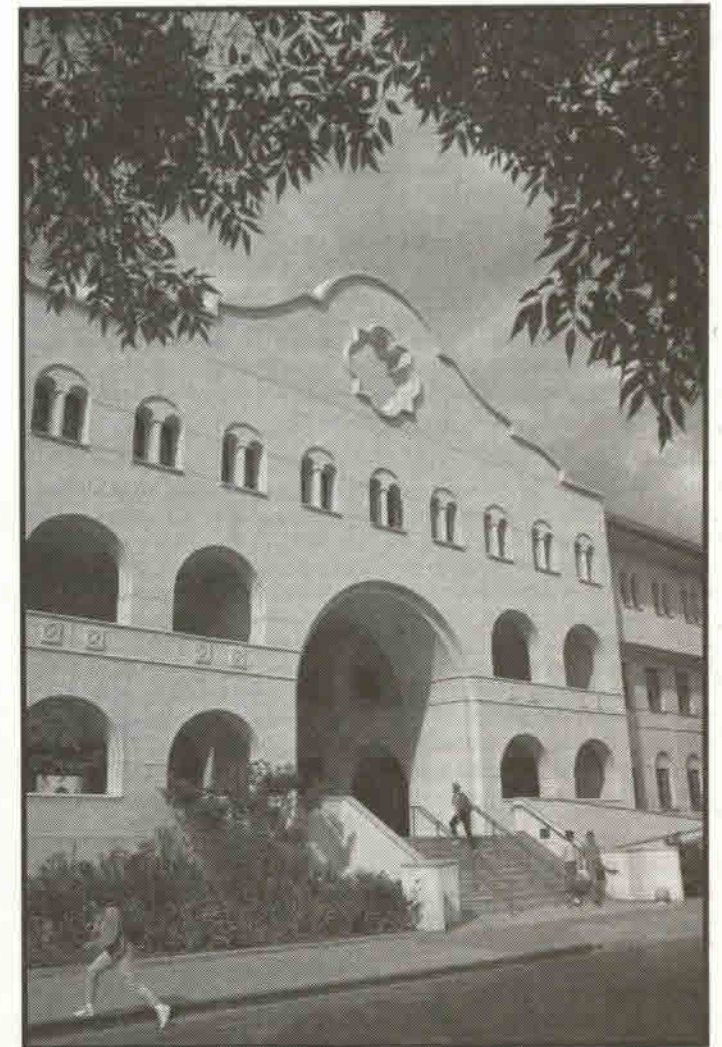
Application for admission or readmission (nonrefundable), payable by check or money order at time application is made \$55.00
Late registration (nonrefundable) (Refer to Class Schedule for dates when this fee will be assessed.) 25.00
Failure to meet administratively required appointment or time limit (late fee) 20.00
Registration installment payment plan service charge 33.00
Tuition (Foreign, Out-of-State, Duplicate Degree) installment payment plan service charge Equal to 15 percent of each installment payment

Photo-identification card (One-time cost to both new undergraduate and graduate students at time of registration.)
Valid only when accompanied by current semester Fee Receipt Card. Non-refundable. 5.00

Lost identification card
Photo I.D. Card replacement 5.00
Fee Receipt Card replacement 2.00
Transcript of record (official or unofficial) 4.00
Second through tenth transcript, prepared at the same time as the first each 2.00
Additional copies over ten, prepared at the same time each 1.00
AFROTC deposit (Unexpended portion is refundable.) 75.00
Check returned for any cause* 20.00
Loss of or damage to library materials Replacement cost plus \$8.00 service charge

Commencement fee (Paid only at time of initial filing.) 16.00
Graduation evaluation and diploma fee 16.00
(You must pay this fee for each graduation date requested.)
Document copying fee 1.00
Diploma replacement fee 12.00
Credential application fee 65.00
Credential evaluation fee 25.00
Musical instrument and audio/visual equipment fee 20.00
Lock and locker fee (optional) 1.00
Towel fee (optional) 4.00

* Late fee also charged when applicable.



Lost key fee (per key) 10.00
Miscellaneous course charge (optional) As established and approved

MISCELLANEOUS INSTRUCTIONAL COURSE CHARGES

Miscellaneous instructional course charges are payable at the option of the student for the following courses:

Art 225, 325, 425, 525, 526, 625, 627, 700D.
Educational Technology 532, 540, 541, 544, 553, 572, 644, 671, 775.

Nutrition 205, 301, 302L, 405.

Physical Education 116A-116B, 119A-119B, 124, 138, 145, 146, 147, 320, 320L.

UNIVERSITY CASHIERS FEE RECEIPT CARD

University Cashiers provides students a current semester fee receipt card upon initial payment or authorized deferment of registration fees. This card should be carried with the Photo I.D. Card. You must enter your student ID number (SSN) and sign the card upon receipt. ASB, Student Union and various other campus activities may require that you present this card.

POSSESSION OF A UNIVERSITY CASHIERS FEE RECEIPT CARD DOES NOT CONFIRM ENROLLMENT.

CREDIT CARDS

The University Cashiers Office does not accept MasterCard/Visa for payment of registration fees or tuition (foreign, out-of-state or duplicate degree). MasterCard or Visa charge cards are accepted for other payments, such as housing, parking, health services, continuing education, and miscellaneous over-the-counter payments. Students are reminded that banks will provide cash advances against credit cards if needed to cover registration payments.

LIABILITY FOR PAYMENT

Whether or not an invoice is received from the University, students are liable for payment of all registration fees related to **units held on or added after the close of business on the fourteenth day** following the commencement of instruction. Foreign, out-of-state and duplicate degree students are liable for tuition related to all units held, except as provided for by the refund policy.

All continuing students participating in *RegLine* must make registration payments by the deadline as instructed.

Nonresident (foreign and out-of-state) and duplicate degree tuition must be paid prior to the first day of classes. With the exception of doctoral students and students enrolling for 799A or 799B only, **foreign** students must pay or sign an installment agreement for a minimum of 6 units at the time of registration. **Foreign** students wishing to pay fewer than 6 units must submit written approval to do so from the International Students Office or Graduate Division and Research, as applicable.

IT IS THE STUDENT'S RESPONSIBILITY TO BE AWARE OF TOTAL FEES AND TUITION DUE. (Legal residents of California are not charged nonresident tuition, however, may be liable for duplicate degree tuition.) Additional fees which may become due as a result of units added during the semester must be paid at the Cashiers Office at the time the units are added. Note fee schedule above. LATE PAYMENTS FOR FEES AND TUITION ARE SUBJECT TO AN ADDITIONAL LATE FEE AND APPLICABLE SERVICE CHARGES.

DISHONORED CHECK

If your check is returned or not accepted by the bank for ANY REASON, you will be billed for the \$20.00 dishonored payment charge and the \$20.00 late fee when applicable. Nonpayment of fees or tuition may result in cancellation of your registration and withholding of further services until all financial liabilities have been resolved.

The University reserves the right to refuse payment by personal check from those individuals who have previously had items returned unpaid by their bank.

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 42201 (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 Cashiers Office.

Refund of Registration Fees

REFUNDS ARE NOT AUTOMATIC. WHETHER OR NOT YOU RECEIVE CLASSES THROUGH THE REGISTRATION PROCESS, YOU MUST APPLY FOR THE REFUND BY THE REFUND DEADLINE.

Refunds may be applied against other amounts due the University. **Complete Withdrawal.** To be eligible for refund of registration fees, a student withdrawing completely from the University (from *all* classes) MUST file a refund application with the Office of Admissions and Records at the time the withdrawal is requested, not later than 14 days following the commencement of instruction (Refund Deadline). All but \$5.00 will be refunded less any amount due to the University. YOUR UNIVERSITY CASHIERS FEE RECEIPT CARD MUST BE RETURNED

AT THE TIME YOU FILE YOUR REFUND APPLICATION. (See Class Schedule for deadline dates. Note that the refund deadline is *prior to* the deadline set by Admissions and Records for Official Withdrawal.)

Fees Based on Unit Load. A student dropping from 6.1 units or more to 6.0 units or less, or a student who paid maximum fees but never obtained over 6.0 units, MUST file a refund application with the Cashiers Office, Student Services Building, Room 2620, not later than 14 days following the commencement of instruction (Refund Deadline). All but \$5.00 will be refunded less any amount due to the University. FOR ADDITIONAL INFORMATION, CONTACT THE CASHIERS OFFICE OR TELEPHONE 594-5253.

Disqualified and Leave of Absence Candidates. If your registration has been canceled due to disqualification or by obtaining an approved leave of absence, registration fees will be refunded upon (1) notification from Admissions and Records that appropriate action has been taken and (2) return of your fee receipt card and **application for refund** to the Cashiers Office.

Refund of Registration Fees to Title IV Financial Aid Recipients

The following refund policy applies to students receiving financial aid from these Title IV programs:

- Federal Direct Stafford Loan
- Federal Direct Plus Loan
- Federal Perkins Loan
- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant (FSEOG)

The Higher Education Amendments of 1992 (Reauthorization) require that a pro rata refund be made if a student receiving Title IV funds withdraws completely on or before the 60 percent point of the enrollment period and is in their first term of attendance at this University. At SDSU, pro rata refunds will apply after the Refund Deadline. Calculations will be based on the withdrawal date and the percent of time remaining in the semester, rounded down to the nearest ten percent of that period. In addition, an administrative fee, the lesser of 5 percent of the fees to be refunded or \$100.00, will be deducted. No fees shall be refunded when the date of the student's withdrawal is after the 60 percent point in the semester. As required by law and determined by the University, if Title IV funds have been disbursed to the student during the enrollment period, refunds will first be returned to the Title IV programs in the order listed above.

Refund of Nonresident (Foreign and Out-of-State) and Duplicate Degree Student Tuition

REFUNDS ARE NOT AUTOMATIC. WHETHER OR NOT YOU RECEIVE CLASSES THROUGH THE REGISTRATION PROCESS, YOU MUST APPLY FOR THE REFUND.

Tuition paid for a course scheduled to continue for an entire semester may be refunded less any amount due to the University in accordance with the following schedule, if application is received by the Cashiers Office within the following time limits:

Time Limit	Amount of Refund
(1) Before or during the first week of the semester	100 percent of fee
(2) During the second week of the semester	90 percent of fee
(3) During the third week of the semester	70 percent of fee
(4) During the fourth week of the semester	50 percent of fee
(5) During the fifth week of the semester	30 percent of fee
(6) During the sixth week of the semester	20 percent of fee

Refund of Parking Fees

This schedule of refunds refers to calendar days, commencing on the date of the term when instruction begins.

Period	Amount of Refund
Nonreserved space per semester:	
1-30 days	75 percent of fee
31-60 days	50 percent of fee
61-90 days	25 percent of fee
91-end of term	None

Your parking permit or a receipt indicating that the permit was removed from the vehicle by a University Police Officer (Information Booth, Campanile Drive) must be turned in to the Cashiers Office at the time you file your refund application. Refund applications are available at the Cashiers Office. The amount of refund is rounded down to the nearest dollar. No refund is made for amounts of \$5.00 or less. Refunds may be applied against other amounts due to the University.

LATE REGISTRATION FEE

The Late Registration fee (\$25) pertains to those students who register during Late Registration. Newly admitted students **MAY** be exempted from this fee. See registration materials provided by Admissions and Records for details. The registration process is not complete until all fees due are paid and you are officially enrolled in classes through Admissions and Records.

APPEALS PROCESS - CASHIERS OFFICE

An appeals process exists for students who believe that individual circumstances warrant exceptions from published policy. Students should file a "Petition for Special Consideration" obtainable at the Cashiers Office. Petitions must be filed with the Cashiers Office prior to the end of the twelfth week of classes.

Petitions for refunds filed beyond the appropriate refund deadline are approved only when applicants are unable to continue their enrollment for one of the following reasons: compulsory military service; administrative error; campus regulation; or physical disability or death.

SUMMER SESSION FEES

Refer to Summer Sessions Bulletin for schedule of fees.

Parking fees (nonreserved spaces) (per week) \$4.80

EXTENSION COURSE FEES

Refer to Extended Studies Bulletin for schedule of fees.

EXEMPTIONS

Students under Public Law 894, 87-815, California state veterans' dependents, or state rehabilitation programs will have tuition and fees paid under provisions of these respective programs.

EXEMPTION FROM PAYING FEE INCREASE

In response to Chapter 1174, approved by the Governor on October 14, 1991, students who were required to leave school for active military service during any term commencing in the fall of 1990 through the spring of 1991 are exempted from paying any increase in fees. This exemption remains in effect for the same number of terms that the student was absent from school as a result of being called to active military service. Contact University Cashiers Office for information on applying for this exemption.

OVER 60 FEE WAIVER PROGRAM

San Diego State University offers a fee waiver program for California residents 60 years of age and older. Both undergraduate and post-baccalaureate students may participate in the program. The program waives the \$55 admission application fee and regular registration fees (except for a nominal \$3 fee). Participants must apply for admission during the regular application filling period and be admitted under regular admission requirements. Participants register for classes on a

space-available basis after regularly matriculated students have completed registration. For additional information, contact the Office of Admissions and Records.

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, *California Education Code*, Section 68121. Students qualifying for these benefits are known as Alan Pattee scholars. For further information contact the Office of Admissions and Records, which determines eligibility.

Procedure for the Establishment or Change of a Student Activity Fee

The law governing The California State University provides that a student activity fee may, with the approval of the Chancellor, be established by student referendum with the approval of two-thirds of those students voting. The Student Activity Fee was established at San Diego State University by student referendum in 1955. The same fee can be increased or decreased by a similar two-thirds approval of students voting on a referendum called for by a petition signed by 10 percent of the regularly enrolled students (*California Education Code*, Section 89300), subject to approval by the Chancellor. An increase or decrease in the student activity fee may be approved by the Chancellor only following a referendum on the fee increase approved by a majority of students voting. Student activity fees support a variety of cultural and recreational programs, child care centers, and special student support programs.

Debts Owed to the Institution

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 receive 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*). For example, the institution may withhold permission to receive official transcripts of grades from any person owing a debt. In addition, failure to pay debts to the University when due may result in the debt being sent to a collection agency. Should the debt be referred to a collection agency, the student will be responsible for costs incurred by the University, its Agents, Contractors and Assigns in the collection of the delinquent obligation. It may further result in notification of the delinquency to credit bureau organizations.

If a student believes that he or she does not owe all or part of an unpaid obligation, the student should contact the University Cashiers Office. The Cashiers Office, or another office on campus to which the student may be referred by the Cashiers 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.



Organization and Administration

The California State University
Board of Trustees
Office of the Chancellor

San Diego State University
Administration
Advisory Board
Colleges, Schools,
Departments, Programs
Auxiliary Organizations

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.

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. California State University, Monterey Bay, became the CSU's 21st campus in September 1994. The California Maritime Academy in Vallejo, founded in 1929, joins the CSU as its 22nd campus in July 1995.

Responsibility for The California State University is vested in the Board of Trustees, consisting of ex officio members, alumni and faculty representatives, and members 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 of the respective campuses.

The Trustees, the Chancellor, and the Presidents develop system-wide 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 multi-purpose 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 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.

In fall 1993, the system enrolled approximately 326,000 students, taught by more than 16,000 faculty. Last year the system awarded over 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 20 campuses since 1960.

Average Annual Cost of Education and Sources of Funds per Full-time Equivalent Student

The 21* 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 1994/95 (including capital outlay funding in the amount of \$11,870,000**) is \$1,565,020,000. However, the total cost of education for CSU, is \$2,183,470,000 which must provide support for a projected 250,000 full-time equivalent students (FTES). The number of full-time equivalent students is determined by dividing the total academic student load by 15 units per term (the figure used here to define a full-time student's academic load).

The total cost of education in the CSU is defined as the expenditures for current operations, including payments made to students in the form of financial aid and all fully reimbursed programs contained

in state appropriations, but excluding capital outlay appropriations and lottery funds. 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, the average cost of education per FTE student is \$8,734. Of this amount, the average student fee support per FTE is \$2,106. (The State University Fee, application fee, and nonresident tuition are included in the average costs paid by the students; individual students may pay less or more than \$2,106, depending on whether they are part-time, full-time, resident, or nonresident students.)

* Excluding California Maritime Academy, which becomes a CSU campus in July 1995.

** Does not include \$17,000,000 of special capital outlay bond funds for special repairs and deferred maintenance.

	Amount	Average Cost Per FTE Student	Percent
Total Cost of Education	\$2,183,470,000	\$8,734	100.0
—State Appropriation	1,553,150,000	6,213	71.1
—Student Fee Support	526,521,000	2,106	24.1
—Support from Other Sources	103,799,000	415	4.8

Trustees of The California State University Ex Officio Trustees

The Hon. Pete Wilson Governor of California	State Capitol Sacramento 95814
The Hon. Gray Davis Lieutenant Governor of California	State Capitol Sacramento 95814
The Hon. Willie L. Brown, Jr. Speaker of the Assembly	State Capitol Sacramento 95814
Delaine Eastin State Superintendent of Public Instruction	721 Capitol Mall Sacramento 95814
Dr. Barry Munitz Chancellor of The California State University	400 Golden Shore Long Beach 90802-4275

Officers of the Trustees

Governor Pete Wilson President	Ms. Martha C. Fallgatter Vice Chair
Mr. Jim Considine Chair	Chancellor Barry Munitz Secretary-Treasurer

Appointed Trustees

Appointments are for a term of eight years, except for a student Trustee, an alumni Trustee, and a faculty Trustee, whose terms are for two years. Terms expire in the year in parentheses. Names are listed in order of appointment to the Board.

Mr. Jim Considine (1994)
Mr. William D. Campbell (1995)
Ms. Martha C. Fallgatter (1995)
Dr. Bernard Goldstein (1995)
Mr. Christopher A. Lowe (1995)
Ms. Marian Bagdasarian (1996)
Mr. Ralph R. Pesquiera (1996)
Mr. Ted J. Saenger (1997)
Mr. Anthony M. Vitti (1997)
Mr. Roland E. Arnall (1998)
Mr. James H. Gray (1998)
Mr. Ronald L. Cedillos (1999)
Mr. J. Gary Shansby (1999)
Mr. Michael D. Stennis (2000)
Mr. William Hauck (2001)
Dr. Joan Otomo-Corgel (2001)
Mr. Stanley T. Wang (2002)

Correspondence with Trustees should be sent:

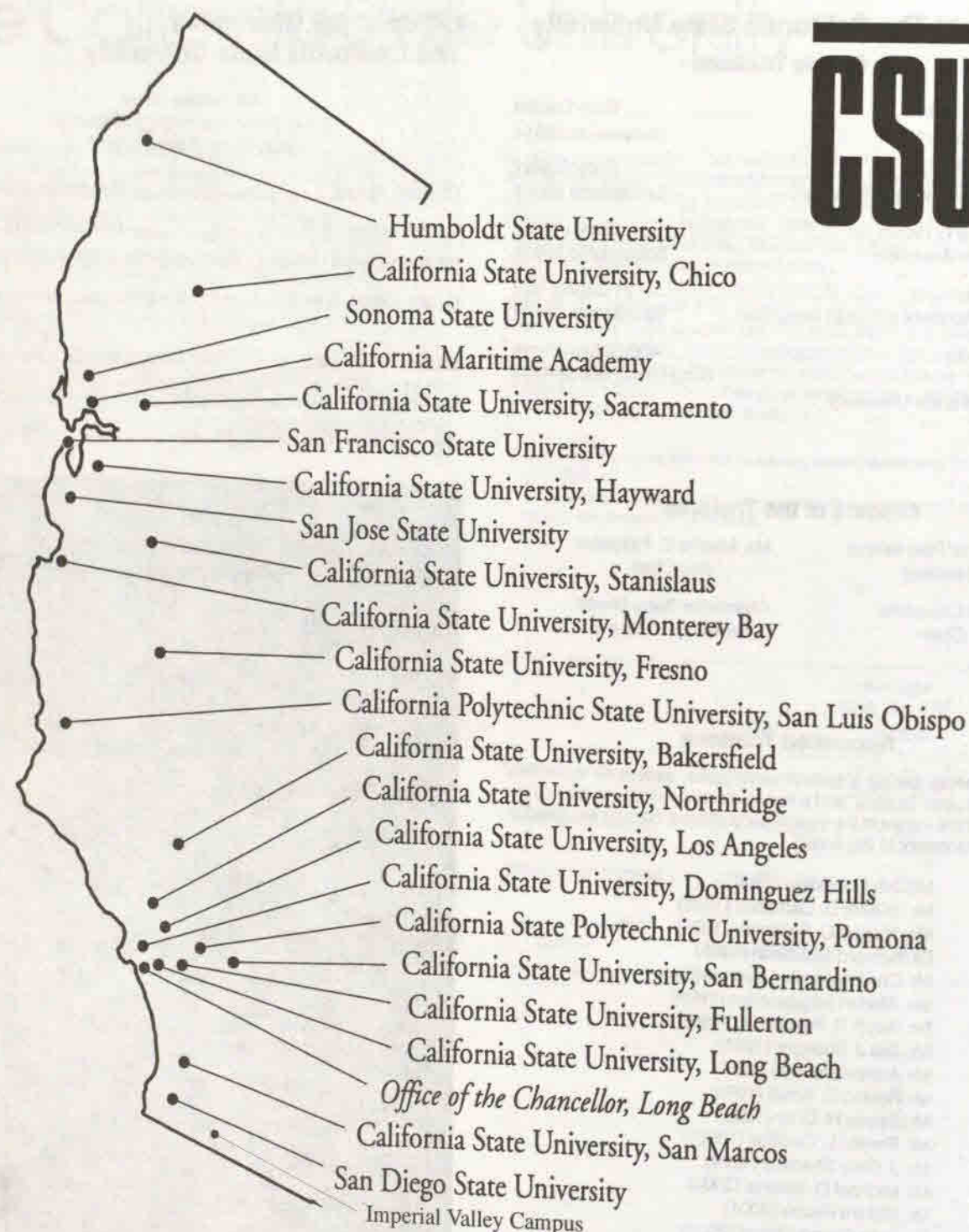
c/o Trustees Secretariat
The California State University
400 Golden Shore, Suite 134
Long Beach, CA 90802-4275

Office of the Chancellor The California State University

400 Golden Shore
Long Beach, California 90802-4275
Telephone: (310) 985-2500

Dr. Barry Munitz Chancellor—CSU System
Ms. Molly Corbett Broad Executive Vice Chancellor
Dr. Peter S. Hoff Senior Vice Chancellor, Academic Affairs
Dr. June M. Cooper Vice Chancellor, Human Resources
and Operations
Mr. Richard P. West Vice Chancellor, Business and Finance
Dr. Douglas X. Patiño Vice Chancellor, University Advancement
Ms. Christine Helwick (Interim) General Counsel





The California State University

Campuses of The California State University

California State University, Bakersfield
9001 Stockdale Highway
Bakersfield, California 93311-1099
Dr. Tomás A. Arciniega, President
(805) 664-2011

California State University, Chico
1st & Normal Streets
Chico, California 95929
Dr. Manuel A. Esteban, President
(916) 898-6116

California State University, Dominguez Hills
1000 East Victoria Street
Carson, California 90747
Dr. Robert C. Detweiler, President
(310) 516-3300

California State University, Fresno
5241 North Maple Avenue
Fresno, California 93740
Dr. John D. Welty, President
(209) 278-4240

California State University, Fullerton
Fullerton, California 92634-9480
Dr. Milton A. Gordon, President
(714) 773-2011

California State University, Hayward
Hayward, California 94542
Dr. Norma S. Rees, President
(510) 881-3000

Humboldt State University
Arcata, California 95521
Dr. Alistair W. McCrone, President
(707) 826-3011

California State University, Long Beach
1250 Bellflower Boulevard
Long Beach, California 90840
Dr. Robert C. Maxson, President
(310) 985-4111

California State University, Los Angeles
5151 State University Drive
Los Angeles, California 90032
Dr. James M. Rosser, President
(213) 343-3000

California Maritime Academy
200 Maritime Academy Drive
Vallejo, California 94590
Dr. Mary E. Lyons, President
(707) 648-4200

California State University, Monterey Bay
100 Campus Center
Seaside, California 93955-8001
Dr. Peter P. Smith, President
(408) 393-3338

California State University, Northridge
18111 Nordhoff Street
Northridge, California 91330
Dr. Blenda J. Wilson, President
(818) 885-1200

California State University, Sacramento
6000 J Street
Sacramento, California 95819
Dr. Donald R. Gerth, President
(916) 278-6011

California State University, San Bernardino
5500 University Parkway
San Bernardino, California 92407
Dr. Anthony H. Evans, President
(909) 880-5000

California State University, San Marcos
San Marcos, California 92069-0001
Dr. Bill W. Stacy, President
(619) 752-4000

California State University, Stanislaus
801 West Monte Vista Avenue
Turlock, California 95380
Dr. Marvalene Hughes, President
(209) 667-3122

California Polytechnic State University,
San Luis Obispo
San Luis Obispo, California 93407
Dr. Warren J. Baker, President
(805) 756-1111

California State Polytechnic University,
Pomona
3801 West Temple Avenue
Pomona, California 91768
Dr. Bob Suzuki, President
(909) 869-7659

San Diego State University
5500 Campanile Drive
San Diego, California 92182
Dr. Thomas B. Day, President
(619) 594-5000

Imperial Valley Campus
720 Heber Avenue
Calxico, California 92231
(619) 357-3721

San Francisco State University
1600 Holloway Avenue
San Francisco, California 94132
Dr. Robert A. Corrigan, President
(415) 338-1111

San Jose State University
One Washington Square
San Jose, California 95192
Dr. Robert L. Caret, President
(408) 924-1000

Sonoma State University
1801 East Cotati Avenue
Rohnert Park, California 94928
Dr. Ruben Armiñana, President
(707) 664-2880

San Diego State University

San Diego State University was founded on March 13, 1897 for the training of elementary school teachers. The seven faculty and ninety-one students of the then Normal School's first class met on November 1, 1898 in temporary quarters downtown while the first unit of the main building of the campus was under construction at Park Boulevard where El Cajon Boulevard begins.

The curriculum was limited at first to English, history and mathematics, but it broadened rapidly under the leadership of Samuel T. Black, who left the position of State Superintendent of Public Instruction to become the first President (1898-1910).

Under the vigorous administration of the second president, Edward L. Hardy (1910-1935), the School was reorganized as a four-year State Teachers' College in 1921, and control was transferred from a local board of trustees to the State Board of Education. In the same year, the two-year San Diego Junior College, the antecedent institution to the present Community Colleges, was incorporated as a branch of San Diego State, where it remained through 1946.

It became clear early that the only collegiate institution in San Diego would soon outgrow its 17-acre site, and a campaign was begun in the 1920s to build a new campus. The Legislature agreed, provided the city furnish a new site and buy the old one. In 1928 the present campus, on what was then the far eastern border of the city, was approved by the electorate.

In February 1931, the college moved to the seven mission-style buildings of the present campus; surrounding what is still called the Main Quad. In 1935, the Legislature removed the word "Teachers" from the name of the institution and authorized the expansion of degree programs into areas other than teacher preparation. In the same year, Walter R. Hepner (1935-1952) was appointed president, and the institution entered a period of slow growth and then, with the coming of war, of contraction. At the end of World War II, enrollment had fallen to 1,918.

In the next quarter century, under Dr. Hepner and subsequently under Malcolm A. Love (1952-1971), enrollments increased phenomenally to over 25,000 students. In 1960, the College became a part of the newly created California State College system, under a statewide Board of Trustees and a Chancellor. In 1971, recognizing that the institution had in fact achieved the status of a university, the Legislature renamed the system The California State University and Colleges, and shortly afterward renamed this institution San Diego State University.

Acting President Donald E. Walker (1971-1972), President Brage Golding (1972-1977), and Acting President Trevor Colbourn (1977-1978) were followed by the sixth president Thomas B. Day (1978-).

Today, San Diego State University is classified by the Carnegie Foundation as a Doctoral University II. It is the unquestioned leader in The California State University system. With over 28,000 students it is one of the largest universities in the western United States.

SDSU is a teaching university with strong research programs. Research and scholarship strengthen the instruction SDSU students receive in the classroom and laboratory. SDSU's faculty conducts more than \$60 million in funded research each year. These projects provide unusual opportunities for students who can work alongside faculty using the latest equipment. The excitement of discovery spreads to the classroom, creating a unique learning experience.

To better accommodate its students, the campus continues to add physical facilities as well. It currently encompasses over 4.5 million square feet in 44 academic buildings. Included are Aztec Center, the first student union building in the CSU system; the Dramatic Arts building with one of the finest theaters in the nation; the Music building with its Recital Hall, and the 320,000 square foot Malcolm A. Love Library. The Health Services facility, Art and Humanities classroom buildings, and additional residence halls and parking facilities make up the core of buildings added in the 1970s. Several renovation projects have

improved facilities for nursing, physical education, public health, and the sciences. A new Student Services Building with a prominent clock tower now houses all of the needs of entering students. A major addition to the library, the Gateway Center housing Continuing Education and KPBS; an International Student Center; and additional student housing and parking structures have been added in the past five years. Currently in the construction and planning stages are new buildings to house a student-financed Activities Center and major additions to the Engineering building and the Chemistry/Geology building.

The University now offers bachelor's degrees in 76 areas, the master's in 55, and the doctorate in 9.

There are five multidisciplinary honor societies on campus that help to reinforce the high academic standards of the campus. They include Golden Key, Mortar Board, Phi Beta Kappa, Phi Eta Sigma, and Phi Kappa Phi. In addition, there are a number of disciplinary honor societies that recognize superior scholarship and leadership in specific academic fields.

Mission and Goals of San Diego State University

The mission of San Diego State University is to provide well-balanced, high quality education for undergraduate and graduate students and to contribute to knowledge and the solution of problems through excellence and distinction in teaching, research, and service.

San Diego State University provides an environment that encourages the intellectual development of students. Its undergraduate and graduate programs in the liberal arts and sciences are designed to help students learn about themselves, their cultural and social heritage, and their physical environment. Additionally, students are challenged to understand how advances in these areas may influence their present lives and their futures. Professional programs, while including many of these broad goals, are designed to meet the needs of the students who seek specific employment in many diverse fields. The University is concerned with developing leaders in cultural, economic, educational, scientific, social, and technical fields.

Closely related to the teaching mission of the University is student and faculty research. Involvement in research ensures that both students and faculty maintain currency in their disciplines and fosters the advancement of knowledge. Graduate study at San Diego State University at the master's and doctoral levels emphasizes creative scholarship, original research, and the development and utilization of research techniques.

Located in a large and ethnically diverse metropolitan center bordering Mexico and on the Pacific Rim, the University uses the social, cultural, scientific, and technical resources of this region to enrich its teaching and research programs. Through its teaching, research, and service, the University is primarily responsive to the people of California as well as to the needs of the regional, national, and international communities it serves. The University also seeks cooperative programs with other institutions of higher education both in the United States and abroad.

San Diego State University Principal Officers of Administration

President of the University Thomas B. Day
Vice President for Academic Affairs Ronald H. Hopkins
Vice President for Business and Financial Affairs Sally F. Roush
Vice President for Student Affairs Daniel B. Nowak
Vice President for University Relations and Development Harry R. Albers

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Ed Quinn	Elizabeth Yamada, Chair

Administration

Office of the President

Executive Assistant to the President Barbara W. Hartung
Coordinators of Affirmative Action Kathee M. Christensen,
Augustine S. Chavez

Office of the Vice President for Academic Affairs

Associate Vice President for Academic Affairs Ethan A. Singer
Associate Vice President for Faculty Affairs Dean O. Popp
Assistant Vice President for Academic Services Jane K. Smith
University Librarian Don L. Bosseau

Chair of the Senate

..... Raford D. Boddy

Office of the Vice President for Business and Financial Affairs

Assistant Vice President Elizabeth J. Brilliant
Assistant Vice President Linda A. Stewart
Director of Administrative and Business Services Joseph Vasquez
Director of Business Information Systems Kay Messinger
Director of Personnel Services Jerome P. Ledin (Acting)
Director of Financial Management Kenneth B. Perry
Director of Facilities Planning and Management W. Anthony Fulton
Director of Internal Review Ellene J. Gibbs
Director of Physical Plant Charles Sippial
Director of Public Safety John J. Carpenter
Director of Environmental Health and Safety M.C. Hull

Office of the Vice President for Student Affairs

Associate Vice President for Student Affairs Carl F. Emerich
Assistant Vice President for Student Affairs Nancy C. Sprotte
Assistant Vice President, Budget and Personnel, Student Affairs Sharon L. Edwards
Ombudsmen, Program Coordinator Susan Chappellet
Records Officer and Judicial Coordinator Michael A. Car
Director of Disabled Student Services Elizabeth A. Bacon
Director of Student Resource Center Garold L. Tisue
Director of Admissions and Records Nancy C. Sprotte
Director of Student Outreach Services Gonzalo G. Rojas
Director of Educational Opportunity and Ethnic Affairs Augustine S. Chavez
Director of Financial Aid William D. Boyd
Director of Career Services Judith G. Gumbiner
Director of Counseling and Psychological Services Douglas J. Van Sickle
Director of International Student Services Ron Moffatt
Director of Student Health Services Barbara Long, M.D. (Interim)
Director of Housing and Residential Life Michael B. Hoctor
Director of Scholarship Kathleen H. Ross
Director of Test Office Michael A. Irwin
Coordinator of Student Athlete Academic Support Services Sandy Shaw

Office of the Vice President for University Relations and Development
Director of Communications Rick Moore
Director of Planned Giving and Legislative Liaison Tricia Moulton
Director of Development and Special Gifts Myrna Hall
Director of University Advancement Services Keith Benton
Director of Community Relations Stephanie Barnett
Director of Alumni Relations and Annual Giving Barbara Barrow
Director of Intercollegiate Athletics Rick Bay
President of Aztec Athletic Foundation Clifford Bee

Colleges, Schools, Departments, and Programs

COLLEGE OF ARTS AND LETTERS Paul J. Strand, Dean
Associate Dean Patricia Huckle
Assistant Dean for Student Affairs, Student and Faculty Relations Ann M. Johns
Assistant Dean for Student Affairs, Student Advising and Special Programs Leslie S. Johnson
Assistant Dean for Development Barbara London

Departments

Africana Studies JoAnne Cornwell
American Indian Studies Linda S. Parker
Anthropology Ronald S. Himes
Classics and Humanities E. N. Genovese
Economics Raford D. Boddy
English and Comparative Literature Carey G. Wall
French and Italian Languages and Literatures Edith J. Benkov
Geography Douglas A. Stow
German and Russian Languages and Literatures Edith J. Benkov
History David V. DuFault
Linguistics and Oriental Languages Robert Underhill
Mexican American Studies Isidro D. Ortiz
Philosophy Thomas S. Weston
Political Science E. Walter Miles
Religious Studies Irving Alan Sparks
Rhetoric and Writing Studies Carol O. Sweedler-Brown
Sociology James L. Wood
Spanish and Portuguese Languages and Literatures Carlos G. Wilson
Women's Studies Kathleen B. Jones

Programs

Africa and Middle East Studies Marcia K. Hermansen
American Studies David V. DuFault
Asian Studies Murugappa C. Madhavan
European Studies E.N. Genovese
International Business Alvord G. Branan
Judaic Studies Lawrence Baron
Latin American Studies Thomas M. Davies, Jr.
M.A., Liberal Arts Howard I. Kushner
Russian and East European Studies Veronica Shapovalov
Social Science Albert C. O'Brien
Urban Studies Roger W. Caves

COLLEGE OF BUSINESS ADMINISTRATION

..... Allan R. Bailey, Dean
Associate Dean and Director of Graduate Program Michael L. Hergert
Associate Dean and Director of Undergraduate Program Robert W. Wilbur
Associate Dean, Community Economic Development Harold K. Brown
Assistant Dean for Student Affairs Patricia L. Dintrone
Assistant Dean for Student Relations Jeffrey Glazer
Director of Communications Marsha Gear
Director of Development Chris A. Audette

Departments and Schools

Accountancy O. Ray Whittington
Finance Nikhil P. Varaiya
Information and Decision Systems John M. Penrose
Management Kenneth E. Marino
Marketing George E. Belch

Program

International Business Alvord G. Branan

COLLEGE OF EDUCATION

Ann I. Morey, Dean
Associate Dean Gordon M. Thompson
Associate Dean for Faculty Development
and Research Margie K. Kitano
Assistant Dean Martin J. Block
Doctoral Programs William E. Piland
Director of Center for Careers in Education Helen Duffy

Departments and Schools

Administration, Rehabilitation and Postsecondary
Education Fred R. McFarlane
Counseling and School
Psychology Carol A. Robinson-Zañartu
Educational Technology Patrick J. Harrison
Policy Studies in Language and Cross-Cultural
Education Natalie A. Kuhiman
Special Education Ian R. Pumpian
Teacher Education Pamela J. Ross (Interim)

COLLEGE OF ENGINEERING

George T. Craig, Dean
Associate Dean Nihad A. Hussain
Assistant Dean for Student Affairs Fang-Hui Chou
Development Officer Dona Barber

Departments

Aerospace Engineering and Engineering
Mechanics Allen Plotkin
Civil and Environmental Engineering Janusz C. Supernak
Electrical and Computer Engineering Nicholas Panos
Mechanical Engineering John G. Pinto

COLLEGE OF HEALTH AND

HUMAN SERVICES

Dolores A. Wozniak, Dean
Associate Dean Olita D. Harris
Assistant Dean for Student Affairs Li-Rong Lilly Cheng
Development Officer Mary Ruth Carleton

Departments and Schools

Communicative Disorders Steven J. Kramer
Graduate School of Public Health F. Douglas Scutchfield
Nursing Patricia R. Wahl
Social Work Anita S. Harbert

Program

Gerontology E. Percil Stanford

COLLEGE OF PROFESSIONAL STUDIES

AND FINE ARTS

Joyce M. Gattas, Dean
Associate Dean Hayes L. Anderson
Assistant Dean for Student Affairs Carole A. Robasciotti

Departments and Schools

Aerospace Studies Col. William D. Airman
Art, Design and Art History Fredrick J. Orth
Child and Family Development Francine Deutsch
Communication John V. Pavlik
Drama Alicia M. Annas
Exercise and Nutritional Sciences B. Robert Carlson
Military Science Lt. Col. Frank Roberts, Jr.
Music and Dance Martin J. Chambers
Naval Science Capt. John S. Boyd
Public Administration and Urban Studies Louis M. Rea
Recreation, Parks and Tourism Gene G. Lamke

Programs

Mass Communication David M. Dozier
Urban Studies Roger W. Caves

COLLEGE OF SCIENCES

Donald R. Short, Jr., Dean
Associate Dean Rebecca B. Bryson
Associate Dean for Special Programs Paul J. Paolini
Associate Dean for External Relations Gordon L. Shackelford
Assistant Dean for Student Affairs Catherine J. Atkins-Kaplan
Assistant Dean for
Underrepresented Student Programs Lawrence J. Alfred
Assistant Dean for Faculty Development Robert S. Pozos
Director of Development Barry R. Humphrey

Departments

Astronomy Ronald J. Angione
Biology Carol A. Barnett
Chemistry Stephen B.W. Roeder
Geological Sciences Kathe K. Bertine
Mathematical Sciences John D. Elwin
Physics Roger A. Lilly
Psychology Frederick W. Hornbeck

Programs

Energy Studies Alan R. Sweedler
Molecular Biology Sanford I. Bernstein
Oceanography Joy B. Zedler

IMPERIAL VALLEY CAMPUS

David Ballesteros, Dean
Associate Dean Pamela M. Balch
Assistant Dean Cynthia D. Flores
Director of Library Services Jon Noland
Director of Academic Services Kathleen Russum
Director of Financial and
Business Services Emma Arguelles Odegard
Development Officer John Renison

OFFICE OF THE DEAN OF THE

GRADUATE DIVISION AND RESEARCH

James W. Cobble, Dean
Associate Dean/Executive Director of
International Programs Lawrence B. Feinberg
Associate Dean Janis F. Andersen
Assistant Dean Michael R. Seitz

OFFICE OF THE DEAN OF

UNDERGRADUATE STUDIES

Carole A. Scott
Associate Dean Amanda L. Golbeck
Assistant Dean Bonnie M. Andersen
Assistant Dean
for Special Programs Thomas J. Cox

OFFICE OF THE DEAN OF

EXTENDED STUDIES

William P. Locke, Dean
Associate Dean Paula Kelly
Assistant Dean for Special Sessions
and Extension Larry G. Cobb
Executive Director of Professional Development Peggy Covert
Director of American Language Institute William Gaskill
Executive Director of International
Training Center Miguel A. Cardenas
Executive Director of Telecommunications
and Program Development Frank A. Medeiros
Director of Retired Adults Program Leslie Koch

Auxiliary Organizations

San Diego State University Foundation

President Thomas B. Day
Vice President James W. Cobble
General Manager Harry R. Albers

Aztec Shops, Ltd.

General Manager Harvey J. Goodfriend

The Associated Students of San Diego State University

President Cesar Padilla
Executive Director Dan Cornthwaite

General Information

General Information

Student Services

Financial Aid

Scholarships

Special Programs and Services

General Information

San Diego State University maintains and promotes a policy of nondiscrimination and nonharassment on the basis of race, religion, color, sex, age, disability, marital status, sexual orientation, and national origin.

The Affirmative Action Program is a University effort affecting every level of activity. The policy stands as a statement of this University's moral commitment to the right of all persons to equal opportunity in a nondiscriminating, harassment-free atmosphere.

San Diego State University places high priority on that objective and expects all members of the University to fully support this policy.

Refer to the General Regulations section for the California State University policy pertaining to nondiscrimination.

Institutional and Financial Assistance Information

The following information concerning student financial assistance may be obtained from the Financial Aid Office, Student Services Building, Room 3605, 594-6323.

1. Student financial assistance programs available to students who enroll at San Diego State University;
2. The methods by which such assistance is distributed among recipients who enroll at San Diego State University;
3. The means, including forms, by which application for student financial assistance is made and 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 academic progress for the purpose of establishing and maintaining eligibility for financial assistance.

Information concerning San Diego State University policies regarding any refund due to the federal Title IV student assistance programs as required by the regulations is available from the Financial Aid Office, 594-6323.

The following information concerning the cost of attending San Diego State University is available from the Financial Aid Office, Student Services Building, Room 3605, 594-6323.

1. Fees and tuition;
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 San Diego State University for the return of unearned tuition and fees or other refundable portions of costs is available from the University Cashiers Office, Student Services Building, Room 2620, 594-5253.

Information concerning San Diego State University policies regarding any refund due to the federal Title IV student assistance programs as required by the regulations is available from the Financial Aid Office, Student Services Building, Room 3605, 594-5253.

Information concerning the academic programs of San Diego State University may be obtained from the Office of the Vice President for Academic Affairs, HH-114, 594-6542, and 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 San Diego State University 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 Disabled Student Services, Student Services Building, Room 1661, 594-6473.

Career Placement

Career Services 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.

Faculty Office Hours

All faculty members are required to hold regularly scheduled office hours during the week to allow for student consultation. A schedule of those hours is posted outside each faculty member's office door.

Honor Societies

An academic honor society is a campus organization that values and reinforces the high academic standards of the University and selects its members, at least in part, on the basis of superior academic performance.

Multidisciplinary Academic Honor Societies

Golden Key is a national undergraduate honor society whose purpose is to recognize and encourage scholastic achievement and excellence in all undergraduate fields of study, to unite with collegiate faculties and administrators in developing and maintaining high standards of education, to provide economic assistance to outstanding members by means of annual scholarships, and to promote scholastic achievement and altruistic conduct through voluntary service. Golden Key National Honor Society has 194 active chapters. It also publishes an annual magazine and a regular newsletter. San Diego State University's chapter was chartered in 1984.

Each fall, the chapter invites to membership juniors and seniors with a minimum GPA of 3.30 who have completed their last 24 units at SDSU. Elected student officers set all agendas and direct activities.

The faculty adviser is Dr. E. Nicholas Genovese, Department of Classics and Humanities.

Mortar Board is a national honor society for college seniors. The society recognizes in its membership the qualities of superior scholastic ability, outstanding and continual leadership, and dedicated service to the University community. The SDSU chapter of Mortar Board had its beginning in 1932 as Cap and Gown. In 1965 the local honorary was recognized as a member of the national organization. Nationwide there are over 200 active chapters with a membership in excess of 190,000.

Mortar Board membership means active involvement to benefit the campus and community. Current projects include presentation of annual emeritus faculty and staff Outstanding Service Awards to recognize individuals whose work contributed significantly to this university; service as volunteers in the annual KPBS fund drive; service as mentors to students at Granger Junior High School; an annual faculty/staff appreciation dinner; and the sale of the Mortar Board Datebook—a daily planning calendar and information booklet for the university community.

To be considered for election to membership, students must have senior standing for the fall semester with an overall GPA of 3.00 and have participated and excelled in the areas of scholarship, service, and leadership. All prospective members must be making satisfactory progress toward the degree. Admission to Mortar Board is highly competitive and is restricted to no more than 40 students per year.

Advisers are Kathleen Ross, Director of Scholarships, and Dr. Glen Broom, Professor of Journalism. The administrative liaison is Dr. Jane K. Smith, Assistant Vice President for Academic Services (HH-114).

Phi Beta Kappa, the oldest national honor society in America (founded 1776), recognizes academic excellence in undergraduate students who are usually enrolled in the College of Arts and Letters or the College of Sciences and who are or will be eligible for the Bachelor of Arts or Bachelor of Science degree. To be considered for election, students must have a high overall GPA (3.5 minimum), have completed a minimum of 45 upper division units at SDSU, have completed a course in university-level mathematics, and have attained proficiency in a foreign language at the level of a third semester university course. Significant weight is also given to the breadth and depth of the students' coursework as evidenced by the number, variety, and seriousness of upper division courses taken outside the major, together with the grades earned; no more than 12 units may have been taken Cr/NC. Election is by vote of the faculty members of Nu Chapter (SDSU) of Phi Beta Kappa. For information, contact Dr. Anne-Charlotte Harvey, Department of Drama or Dr. Barbara B. Hemmingsen, Department of Biology.

Phi Eta Sigma was established as a national society in 1923. The local chapter was formed in 1955.

Phi Eta Sigma was established to encourage and reward high scholastic achievement among freshmen in institutions of higher education. There are over 260 chapters throughout the United States and more than 485,000 members.

All freshmen, both men and women, who have a cumulative grade point average of at least 3.5 on a 4.0 scale at the close of either semester during their freshman year are eligible to join. Students who were eligible but missed induction after their freshman year may join at any time thereafter.

Among its activities are a topical lecture series, discussion groups, social events, and national conventions.

The faculty adviser is Carl F. Emerich, Associate Vice President, Student Affairs, (619) 594-5211.

Phi Kappa Phi was founded in 1897 to promote the pursuit of excellence in all fields of higher education and to recognize outstanding achievement by students, faculty, and others through election to membership and through various awards for distinguished achievement. Activities of the organization include the awarding of two

thousand dollars in scholarships annually, the recognition of outstanding faculty and students through nominations for national awards and scholarships, spring initiation, and sponsorship of the SDSU Emeritus Lecture Series. The national organization publishes a newsletter and a scholarly journal and sponsors the National Scholar and National Artist awards and the Graduate Fellowship program. Nationally there are 264 active chapters. San Diego State University's chapter was chartered in 1965.

Membership is based on, but not limited to, the following criteria: Juniors must have completed a minimum of 75 units with a GPA of 3.60 overall and at SDSU; seniors must have completed a minimum of 90 units with a 3.50 GPA overall and at SDSU; graduate students must have completed a minimum of 15 units of graduate work at SDSU and have a GPA of 3.90 or better in graduate work overall and at SDSU. All prospective members must have made satisfactory progress toward the degree.

President of the society is Dr. E. Nicholas Genovese, Department of Classics and Humanities.

Disciplinary Honor Societies

The national honor societies at San Diego State University which accord recognition to students who demonstrate superior scholarship and leadership in specific academic fields include:

Alpha Epsilon Delta (Medical)
Alpha Kappa Delta (Sociology)
Beta Alpha Psi (Accountancy)
Beta Gamma Sigma (Business)
Chi Epsilon (Civil Engineering)
Eta Kappa Nu (Electrical Engineering)
Eta Sigma Gamma (Community Health Education)
Eta Sigma Phi (Classics)
Financial Management Association
Kappa Delta Pi (Education)
Omicron Delta Epsilon (Economics)
Phi Alpha Theta (History)
Phi Beta Delta (International Studies)
Phi Mu Alpha Sinfonia (Music)
Pi Kappa Delta (Forensics)
Pi Kappa Lambda (Music)
Pi Lambda Theta (Education)
Pi Tau Sigma (Mechanical Engineering)
Psi Chi (Psychology)
Sigma Alpha Iota (Music)
Sigma Delta Pi (Spanish)
Sigma Gamma Tau (Aerospace Engineering)
Sigma Iota Epsilon (Management)
Sigma Theta Tau (Nursing)
Tau Beta Pi (Engineering)

Accreditation

San Diego State University is accredited by the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges. It is also approved to train veterans under the G.I. Bill.

San Diego State University's programmatic accreditation is through membership in the following associations:

Accrediting Council on Health Services
Administration
American Association of Colleges of Nursing
American Association of Colleges for Teacher Education
American Chemical Society
American Council on Education for Journalism and Mass Communication
American Psychological Association (Clinical Psychology)

American Speech-Language-Hearing Association; Educational Standards Board and Professional Services Board
 California Commission on Teacher Credentialing
 Computer Science Accreditation Commission of the Computing Sciences Accreditation Board
 Council on Education of the Deaf
 Council on Education for Public Health
 Council on Rehabilitation Education
 Council on Social Work Education
 Foundation for Interior Design Education Research
 National Association of School Psychologists
 National Association of Schools of Art and Design
 National Association of Schools of Music
 National Association of Schools of Public Affairs and Administration
 National Association of Schools of Theatre
 National Council for Accreditation of Teacher Education
 National League for Nursing
 National Recreation and Parks Association

The University is a member of the Council of Graduate Schools, U.S.A. and the Western Association of Graduate Schools

The College of Business Administration and the School of Accountancy are accredited by the American Assembly of Collegiate Schools of Business at both the undergraduate and graduate levels. The M.S. in Financial and Tax Planning and the Certificate in Personal Financial Planning are registered with the International Board of Certified Financial Planners.

The College of Engineering undergraduate programs in aerospace, civil, electrical and mechanical engineering are accredited by the Accreditation Board for Engineering and Technology, Inc.

The School of Nursing is accredited by the California Board of Registered Nursing, National League for Nursing, and California Commission on Teacher Credentialing.

The Didactic Program in Dietetics and the Preprofessional Practice Program in Dietetics in the Department of Physical Education are approved by the American Dietetic Association.

In addition, preparation for many other professions is provided. It is suggested that the student refer to the various courses of study listed in the catalog.

Degrees and Certificates

San Diego State University offers the following degrees and certificates:

Bachelor of Arts
 Bachelor of Science
 Bachelor of Music
 Bachelor of Vocational Education
 Master of Arts
 Master of Science
 Master of Business Administration
 Master of City Planning
 Master of Fine Arts (Art, Creative Writing, Drama)
 Master of Music
 Master of Public Administration
 Master of Public Health
 Master of Social Work
 Doctor of Philosophy

Nondegree programs leading to certificates are offered in Accounting, Applied Linguistics and English as a Second Language (ESL), Art (Imperial Valley Campus only), Bilingual (Spanish) Special Education, Business Administration (Imperial Valley Campus only), Children's Literature, Cross-Cultural Language and Academic Development (CLAD), Early Intervention Specialist, Family Life Education, Geographic Information Systems, Human Services Paraprofessional, Instructional Technology, Introductory Mathematics, Language Development Specialist, Personal Financial Planning, Preventative Medicine Residency, Professional Services Bilingual/Bicultural, Public Administration (Imperial Valley Campus only), Recombinant DNA Technology, Rehabilitation Administration, Single Subject Mathematics, Spanish Court Interpreting (Imperial Valley Campus only), Spanish Translation Studies, Supported Employment and Transition Specialist, Teaching the Emotionally Disturbed, Technical and Scientific Writing, and United States-Mexico Border Studies.

Types of Curricula Offered

San Diego State University offers the following types of curricula:

Undergraduate Curricula. Undergraduate curricula provide the following opportunities for study:

(1) **Liberal arts and sciences:** Curricula in the academic major fields, leading to the Bachelor of Arts degree in liberal arts and sciences.

(2) **Applied arts and sciences:** Curricula in major fields leading to the Bachelor of Science, Bachelor of Arts, or Bachelor of Music degree in applied arts and sciences.

(3) **Professional curricula:** The College of Business Administration offers the Bachelor of Science degree in business administration with majors in ten fields; the College of Engineering offers the Bachelor of Science degree in engineering with majors in four fields; and the College of Education offers curricula in teacher education leading to graduate credentials at all levels of public school teaching.

The Department of Communicative Disorders offers curricula leading to graduate credentials in Education of the Deaf and Deaf-Blind, clinical certification and graduate credentials in speech pathology, audiology and communicative disorders.

The School of Nursing offers the Bachelor of Science degree and the Master of Science degree in Nursing (areas of concentration are nursing systems administration, critical care (adult and child), and community health nursing) and offers a curriculum leading to registered nurse licensure and public health nurse credential, and health services credential (school nursing).

(4) **Preprofessional and nondegree curricula:** Programs are offered in allied health, pre dentistry, prelegal, premedical, and pre veterinary leading to transfer to professional schools. Air Force, Army, and Naval ROTC programs are also available.

Graduate Curricula. The Graduate Division offers curricula in the various colleges and departments leading to the Master of Arts and Master of Science degrees in a wide variety of fields, the Master of Business Administration, the Master of City Planning, the Master of Fine Arts in Art, the Master of Fine Arts in Creative Writing, the Master of Fine Arts in Drama, the Master of Music, the Master of Public Administration, the Master of Public Health, the Master of Social Work, and the Doctor of Philosophy in biology, chemistry, clinical psychology, ecology, education, engineering sciences/applied mechanics, geography, mathematics and science education, and public health/epidemiology.

Division of Student Affairs

The Division of Student Affairs supports the academic mission of the University by providing services which assist students in identifying, clarifying, and achieving their educational and career goals. Through the Division of Student Affairs the campus expresses its awareness that students have unique financial, developmental, social, cultural, psychological and health related needs both in and out of the classroom.

In addition to direct assistance to students, the Division of Student Affairs is charged with developing programming which enhances the learning environment on campus and improves the quality of life for students and others. Central to this charge are activities which promote and sustain an appreciation for the diversity of cultural, racial and life-style backgrounds represented on the campus; the investigation of contemporary issues concerning the well-being and life choices of students; and a campus environment which encourages a productive interchange of ideas.

By working with the following departments students will receive the assistance and counseling they need to remain focused on their studies while maturing as individuals and members of the campus community.

Office of Admissions and Records	International Student Center
Career Services	Judicial Procedures
Counseling & Psychological Services	Ombudsman
Disabled Student Services	Scholarship Office
Office of Educational Opportunity/Ethnic Affairs (EOP)	Student Athlete Academic Support Services
Financial Aid	Student Outreach Services
Health Services	Student Resource Center
Housing and Residential Life	Test Office
	Veterans' Affairs

Campus Tours

Student Services Building, Room 1602, (619) 594-6868

Tours of the campus are conducted by the SDSU Ambassadors, the University honorary and service society. The Ambassadors have been carefully selected and trained in order to represent SDSU at new student orientation programs and at campus and community events. To find out how to become an Ambassador, or for information about scheduling campus tours, please contact the Campus Tours office.

Career Services

Student Services Building, Room 1200, (619) 594-6851

Career counselors assist students in the exploration of their skills, interests and values as they choose a major and develop a career plan. A variety of computerized instruments are used in the career counseling and job search process. An extensive Career Resource Library is available to provide information about potential employers as well as current open positions for graduates.

A centralized listing of paid part-time jobs and internships for on and off campus is available through the Student Employment section of Career Services.

Career fairs are scheduled each semester allowing students to meet employers in an informal setting. A comprehensive career fair is scheduled in September followed by a graduate and professional school day. In the Spring a series of specialty fairs are scheduled, including one for summer jobs. Access to a bank of SDSU alumni (through our Career Consultant Network) will also help students explore numerous career possibilities.

Student Services

The On-Campus Recruiting program brings prospective employers and graduating students together for career employment interviews. Students are assisted in preparing for these interviews and all other aspects of the job quest through workshops and individual career counseling.

Various services are offered to alumni for a nominal fee.

Career Services is open 8:00-4:30 p.m., Monday through Friday, and until 6:00 p.m. on Thursdays during fall and spring semesters while classes are in session.

Counseling & Psychological Services

Student Services Building, Room 2109, (619) 594-5220

Counseling & Psychological Services (CPS) offers individual and group counseling for the typical college student who wants assistance in coping with, and successfully resolving, the problems they face in everyday life. Issues relating to intimate relationships, self-esteem, personal independence, conflict, anxieties, self-confidence and academic performance are difficult and common obstacles for most college students. Peer counselors are also available to assist students with personal and family problems.

Individual counseling services are designed for students who can benefit from short term, intensive counseling, lasting a maximum of six sessions. If a student's situation requires longer term therapy, referrals can be made to off campus resources.

CPS has a stress management program and Personal Growth Resource Library equipped with over 200 video and audio tapes and a variety of free brochures on topics to assist students in their academic performance and personal growth.

Enrolled SDSU students who want help from the CPS staff in locating off campus community services can call 594-5220.

Counseling psychologists at CPS offer help in:

Learning to reduce stress. Stress can interfere with concentration, memory, and mental processing.

Dealing with relationship loss, feelings of helplessness or hopelessness, which may lead to a lack of motivation or prolonged depression.

Developing communication skills and problem solving techniques to improve important relationships.

Building self-esteem and improving coping skills.

Clarifying values and career decisions.

Counseling & Psychological Services is open from 9:00-4:00 p.m., Monday through Friday.

Disabled Student Services (DSS)

**Student Services Building, Room 1661, (619) 594-6473;
 TDD: 594-2929**

Disabled Student Services provides support services for students with mobility limitations, learning disabilities, hearing or visual impairments, and other disabilities. Counselors are available to help students plan an SDSU experience to meet their individual needs. They assist students in making personal, academic, and vocational choices, and show how best to utilize campus facilities. Prior to receiving this assistance, appropriate medical documentation must be submitted to Disabled Student Services. Services offered include:

Orientation for students - Information on attendants - Government benefits counseling - Priority registration for students with special needs - Close-in parking - Transportation on campus and information about off-campus transportation - Accessibility information, maps, and library study rooms - Reader services and assistance with books

on tape; sign language interpreters for deaf students—Testing assistance for visually impaired, learning disabled, and dexterity limited students—Loan of educational support equipment (tape recorders, amplification equipment, wheelchairs, etc.); a high technology computer lab—Specialists who evaluate and provide support services for learning disabled students—Tutoring and notetaking services—Referral to off-campus agencies for mobility orientation, financial benefits, and other services.

Educational Opportunity/Ethnic Affairs (EOP)

Student Services Building, Room 2209, (619) 594-6298

The Office of Educational Opportunity/Ethnic Affairs (EOP) at SDSU has helped many students with the potential for academic success and who are from low-income backgrounds enroll in and graduate from college. EOP assists students who have historically been underrepresented in higher education institutions. It is the purpose of the program to support those students who have the interest and motivation to obtain a college education, but who have not been able to realize their full potential due to economic, educational, or cultural factors.

Student services provided by EOP include preadmission counseling, summer program, priority registration, academic advising, personal counseling, referral services, individual tutoring, study groups, academic skills courses, work study, and multicultural activities. Financial aid is available through the Financial Aid office.

To apply for the program, students must complete the CSU Application for Admission and **check the appropriate box for EOP**. Supplemental application forms will then be sent to students indicating interest. For assistance in filling out the application forms, or for further information about the program, please contact one of the EOP recruiters in the Student Outreach Services office, (619) 594-6966.

Health Services

Corner, Campanile Drive and Hardy Avenue, (619) 594-5281

All regularly enrolled SDSU students have prepaid a health fee which entitles them to basic medical services. Some services, including annual Pap smears and pharmacy, require a minimal fee. Charges associated with these services are usually dramatically lower than those found elsewhere. This care is provided at Student Health Services, an on-campus center where health care providers offer a wide range of programs and services. Services include:

Care by physicians board certified in family practice, pediatrics, internal medicine, preventive medicine, and radiology; primary care nurse practitioners; nursing, x-ray, and laboratory staff; a pharmacy which dispenses at reduced cost most of the medications prescribed by Health Services staff; health-related counseling; and campuswide health education programming offered by the Health Promotion Department.

REQUIRED: Proof of Measles and Rubella Immunizations or Immunity

New or readmitted students born on or after January 1, 1957 must demonstrate proof of immunity to measles and rubella (German Measles) by the beginning of their **second term** of enrollment at SDSU. Students who have not complied with this California State University mandate prior to the registration deadline will not be assigned classes for the upcoming second semester.

Measles and rubella immunization is now required because both of these diseases continue to cause disability and sometimes death in college-age individuals. Epidemics have occurred on many college campuses during the past few years because a sizeable percentage of students lack immunity to measles and rubella. The **minimum** requirement for registration is proof of **at least one** immunization for measles and rubella given after the first birthday and after 1968. **All students are encouraged to consider a second immunization for measles prior to enrollment.**

Students may fulfill the immunization requirement by bringing or sending documentation as proof of either previous illness or immunization to **Student Health Services**. Students may also receive a free measles, mumps, and rubella immunization in Student Health Services. For more information, call (619) 594-6684.

Strongly Recommended Health Screening

Immunization from the following diseases may also protect students against potentially severe infections: tetanus, diphtheria, polio, mumps, and hepatitis B. Like measles, these too can be particularly harmful in the college-age group. These immunizations are available at reduced cost in Student Health Services.

Entering students are also strongly encouraged to have a screening test for tuberculosis (TB). The TB skin test is offered free at Student Health Services.

Appointments

Students without acute or urgent problems are encouraged to make an appointment. Those with problems requiring immediate medical attention should walk in. Student Health Services is open twelve months of the year. During the fall and spring semesters, the clinic is open from 8:00 a.m. to 4:30 p.m., Monday through Friday. During the summer, fees and clinic hours vary. It is best to call for hours of service and to ask about the availability of services (594-5281). All medical care provided at Student Health Services is **strictly confidential**. No one, on or off campus, has access to medical record information without written permission from the student.

Student Health Advisory Board

Students can participate in the clinic activities and offer important feedback about services through membership on the Student Health Advisory Board (SHAB) sponsored by Associated Students. Members not only work with clinic staff on a variety of health education projects, but also act as liaison between the SDSU student body and Student Health Services. SHAB keeps Student Health Services staff focused and current on major student health issues. Membership from all academic majors is encouraged.

Accidents and Student Insurance Coverage

First aid or urgent medical care is provided to students, faculty, staff, and campus guests for accidents and injuries occurring on or near the University. Accidents requiring treatment and/or transportation to Health Services, 5500 Campanile Drive, or a local hospital should be reported immediately to the SDSU Department of Public Safety; telephone 594-1991.

SDSU students are treated by the University as adults. Accordingly, students are responsible for their own safety and health in connection with participation in campus activities and should exercise good judgment and due care at all times. **The University does not provide accident, liability, or health insurance coverage for students. This includes those participating in extracurricular activities, intramural sports, and required or elective academic programs, such as laboratory courses, workshops, theatrical productions, internships, or practica.** Specific questions regarding insurance coverage for campus programs, institutional safety regulations, and potential risks inherent in academic programs and student activities should be directed to the responsible faculty or staff member in charge of the activity.

In addition, through the Associated Students, a **health insurance policy** is available and recommended to students having no private medical or accident insurance coverage. The insurance includes hospitalization benefits and specified medical and surgical services. The policy may be purchased by semester or on a yearly basis. An open enrollment period is available the first thirty days of each semester and the policy may be purchased at the Aztec Center ticket office.

Housing and Residential Life

6050 Montezuma Road, (619) 594-5742

Each of the various housing alternatives available to SDSU students offers unique advantages. SDSU considers the student residence an integral part of the educational experience. Students are strongly encouraged to live on-campus at least two years while studying at SDSU. Since family housing is not available on campus, off-campus housing serves the needs of families. For assistance in finding housing most appropriate for each student, the Housing and Residential Life office is the campus resource.

Residence Halls

On-campus residence halls are conveniently located on campus and offer students a 10 to 15 percent better chance of doing well in college than those who live off campus according to research done by the American Council on Education.

Residence halls offer a variety of accommodations including double rooms, apartments, special interest housing for graduate students, international students, upper division students, outdoor/recreational, extended quiet, and others.

There are nine coeducational residence halls on campus offering students various living situations and meal plans. Zura Hall is a nine-story highrise with 594 residents. Tenochca Hall has eight floors for 424 students. Chapultepec Hall has eleven floors for 560 students. Five other halls are three-story, red-brick buildings accommodating 218 students each. These halls provide sleeping and study facilities on a two-students-per-room basis, with a limited number of single rooms available. Villa Alvarado is an apartment-type facility housing 354 students in furnished two-bedroom suites. Student government within the residence halls provides residents an opportunity to run their own programs, gain leadership experience, and maintain standards of behavior.

For the 1995-96 year, the cost for room and board was \$4,700 (10-meal plan, double occupancy). Fees for Villa Alvarado, which do not include board or utilities, are \$3,736 for the academic year. Rates for all halls are reviewed and adjusted annually to meet cost-of-living increases.

TO REQUEST AN APPLICATION FOR HOUSING, STUDENTS SHOULD TELEPHONE OR WRITE TO THE HOUSING AND RESIDENTIAL LIFE OFFICE AT THE UNIVERSITY BEFORE THEY APPLY FOR ADMISSION TO SDSU OR THEREAFTER.

Housing applications are available in November and thereafter for the fall term of the upcoming academic year. For the spring semester, applications are available in September and thereafter. Confirmation of a room reservation is made after the following requirements have been met: (a) the student has been admitted to the University; (b) the signed contract has been returned to the Housing and Residential Life Office; and (c) the first payment has been received as specified. Though consideration will be given to a student's request for an individual hall and roommate, a specific assignment cannot be guaranteed.

During the Summer Sessions, rooms are available on a receipt-of-check date priority. Full payment must accompany the application. Students should contact the Housing and Residential Life Office in mid-April for information concerning Summer Session housing.

Off-Campus Housing

Off-campus housing accommodations in the San Diego area include apartments, houses, rooms in private homes, etc. Listings of available dwellings and also of students seeking roommates are located next to the Housing and Residential Life Office.

Residential Greek Letter Organizations

Fraternities and sororities offer students opportunities for friendship, social and recreational activities, community service projects, and development of leadership skills. At SDSU there are approximately 30 residential sororities and fraternities from which to choose.

Chapter houses provide accommodations for about 25 percent of their members. New members should not plan on living in chapter houses until at least their second year.

International Student Center

International Student Center, (619) 594-1982

More than 650 international students from 75 countries attend SDSU. Through the support provided by the International Student Center, these students can find assistance in reaching their educational goals. Services include prearrival advising, orientation to campus life, academic and immigration advising, and a housing referral service.

The International Student Center also coordinates a variety of activities designed to foster intercultural goodwill, understanding, and friendship. One such activity is provided by the Intercultural Ambassadors, through which selected international students make home-country presentations in San Diego schools. In addition, the ISC invites faculty, staff, and the community to become American Friends to international students new to the SDSU community and to participate in the many events listed in the ISC Calendar of Intercultural Activities. These include the International Coffee Hour, the Whole Earth Dialogue Series, the International Festival, and the Intercultural Exchange Camps.

Ombudsmen

Student Services Building 3635, (619) 594-6578

Becoming a student at SDSU also means becoming a member of a special community which includes students, faculty, staff, and administrators. As a member of this community, students are responsible for knowing and complying with established rules and regulations.

The Ombudsmen are independent and impartial agents who help individuals and groups seeking the resolution and correction of complaints. The Ombudsmen act as liaisons between students and the University, assisting students through formal grievance procedures and functioning to mediate and reinforce other means of redress when possible. This office does not supplant existing avenues of redress. It exists to encourage appropriate and timely access to those existing processes which may best resolve the problem.

Examples of student complaints which have been resolved through this process include disputes over grades, faculty or staff conduct, academic disputes, appeals or waivers, administrative policies, and institutional compliance with federal and state nondiscrimination laws. Should a complaint not be resolved at the referral level, the Ombudsmen may act as mediators and suggest compromise solutions between parties. If the problem is still unresolved, the student may file a grievance with the student grievance committee. No student grievance can be filed with this committee later than the last day of the semester (excluding summer sessions) after the semester during which the student was allegedly aggrieved.

Student Athlete Academic Support Services

Professional Studies and Fine Arts 147, (619) 594-4743

Academic assistance for athletes is handled through the Office of Student Athlete Academic Support Services. The office monitors and records athletes' academic progress, and provides advising. This individualized program is designed to create an academic support network to insure all student-athletes comply with graduation requirements.

Student Outreach Services

Student Services Building, Room 2307, (619) 594-6966

Student Outreach Services (SOS) is SDSU's official representative in the community beyond the University, linking SDSU with other schools, colleges, and communities within the state. Through the programs which make up Student Outreach Services—School and

College Relations; the recruitment component of EOP, and Student Affirmative Action—important facts about University life are provided to prospective students. For guidance in college selection and preparation, or information about admissions requirements, academic programs, or other student services, the SOS office is the campus resource.

Specific services provided by the staff of the Student Outreach office include:

Visits to high schools and community colleges and meetings with counselors, students, and parents—Assistance to SDSU colleges, schools, and departments in providing information about their programs to prospective students—Distribution of printed information about the University to students, teachers, counselors, and other members of the community—Support for academic partnerships between the University and junior high schools, secondary schools, and community colleges—Administration of the Student Affirmative Action program which provides recruitment for non-EOP students from underrepresented ethnic groups.

Student Outreach Services invites all prospective students and interested members of the community to take advantage of the services and programs offered. To find out how, please contact the Student Outreach Services office.

Student Resource Center

Student Services Building, Room 1602, (619) 594-5221

The Student Resource Center values the ability to respond to the needs of students and their families. At the SRC, questions will be answered or referrals made. Beginning with SRC's new Student Orientation Programs, SRC supports students throughout their years at SDSU in achieving academic goals and in enhancing the University experience. Students may visit the SRC for the following:

(1) Programs and services

Academic Information Day—assistance with course selection, General Education and competencies requirements, and registration (for freshmen and transfer students).

CONTACT—orientation to University programs, services, traditions and history; opportunities for involvement on campus (for freshmen and transfer students).

Freshman Success Programs—includes Academic Information Day, CONTACT, and Emerging Leader Program. Also, the Living/Learning Center and University Seminar (see Special Programs and Services section for complete description).

Annual Leadership Institute—workshops and seminars presented to students and advisers from universities throughout the Western United States.

Emerging Leader Program—leadership skills and campus involvement opportunities for freshmen and sophomores.

Aztec Senior Experience—programs and information designed to assist seniors with the transition from undergraduates to successful alumni.

Leadership and Personal Growth Workshops—sessions on a wide variety of topics are presented by SRC staff as requested by student groups.

Project Progress—student diversity awareness program.

Quest for the Best Vice Presidential Awards—this student service award is presented annually to ten students and the faculty they nominate.

Ambassadors—the University honorary and service society.

Campus tours.

Student internships for class credit.

(2) Information services

General campus and academic information.

Publications for parents, students, visitors, businesses, sponsors, etc. *Parenthetically Speaking*, a newspaper for parents and families of SDSU students, is published by the SRC. To subscribe (home delivery), call 594-5221.

Response to mail inquiry.

Notary services.

(3) Student activities

On campus status for clubs and organizations.

Implementation of University policies and procedures with regard to student activities.

Approval of all on-campus clubs' activities, including fundraising events.

(4) Parent/family and community programs and development

Parents' Association programs.

Promotions and fundraising to directly support student programs.

(5) Student services' research and evaluation

Surveys of student needs, attitudes, and behaviors.

Evaluation of SRC and other Student Affairs programs and services.

Test Office

Student Services Building, Room 2549, (619) 594-5216

The Test Office is an important resource for the entire University community, serving both students and faculty through administering tests for the purpose of admission, class placement, competency for graduation, licenses, credentials, and career planning. A library of standardized assessment instruments is maintained for use by faculty and students in testing classes, and test scoring and analysis services are provided for classroom tests.

Test dates for San Diego State University competency and placement tests are listed in the Special Tests section of the current Class Schedule and advance reservations as well as fee payments are required for most tests. The Test Office will provide students with test dates and registration procedures for major national examinations in the form of a bulletin of information or with the address of the testing service. Students who are interested in assessments, assisting with the counseling process, and career planning must contact Career Services or Counseling & Psychological Services. Special competency and national testing arrangements for disabled students are made through the Disabled Student Services office.

Although competency test requirements are monitored by various offices on campus, the Test Office will attempt to assist students in signing up for the required examinations or refer them to the proper agency.

Veterans' Affairs

Student Services Building, Room 1510, (619) 594-5813

Students who are eligible for veterans, dependents, or reservists V.A. education benefits should visit SDSU's Veterans Affairs Office (VAO). Services available through the VAO include assistance in applying for education benefits, coordinating the V.A. work/study program, and processing tutorial assistance paperwork.

Students planning to attend SDSU should contact the Veterans Affairs Office two months before the beginning of their first semester; they may be eligible for an advance payment of the first V.A. education check. For additional information, about the VAO or the services provided, please telephone or visit the office.

Financial Aid and Scholarships

Financial Aid

Student financial aid programs are intended to provide assistance to students who do not have the necessary financial resources to meet educational costs. For scholarships recognizing academic excellence and not generally based on financial need, refer to the following information on Scholarships. Only United States citizens and permanent residents are eligible to apply for financial aid.

San Diego State University makes every effort to advise students of all available financial aid programs. Financial aid is available in the form of loans, grants, and part-time employment for eligible students. Since funds are limited and there are program deadlines, not all eligible applicants are awarded aid.

Information about all state, federal, and institutional aid programs is available from the Financial Aid Office, Student Services Building, Room 3605, 594-6323. A financial aid brochure which describes the programs available and the eligibility requirements is available from the Financial Aid Office.

Applying for Aid

Applicants who want to be considered for all types of state and federal financial aid should apply as soon after January 1 as possible by completing a *Free Application for Federal Student Aid (FAFSA)*. Since new California grant program applicants must apply by March 2, we strongly encourage all applicants to apply by this date.

Applications are reviewed, and funds awarded on a "first completed, first awarded" basis. Applications are reviewed, and awarded throughout the year based on available funding.

Cost of Living

To ensure equity, San Diego State University establishes standard student budgets in coordination with The California State University system. Student budgets, updated annually for inflation are currently:

Costs of Attendance for the 1994-95 Academic Year

	Living off Campus	Living on Campus	Commuting from Home
Registration fee for materials, service, student activity, student union, facilities	\$ 1902	\$1902	\$1902
Books and supplies	630	630	630
Room and board	6456	5624	2124
Transportation	720	540	576
Personal	1710	1638	1764
Total	\$11,418	\$10,334	\$6996

In addition to the registration fee, nonresident (foreign and out-of-state) and duplicate degree students pay tuition (see Schedule of Fees section). All fees and costs are subject to change without notice.

California Grants and California State Fellowships

California residents may apply for grants administered by the California Student Aid Commission (CSAC), P.O. Box 942845, Sacramento, California 94245-0845. To apply, complete a *Free Application for Federal Student Aid (FAFSA)* and a *Cal Grant GPA Collection Form*. March 2 is the deadline for all aid programs administered by the CSAC.

Scholarships

Scholarships reward academic excellence and are not generally based on financial need. For financial aid not based on academic record, refer to the preceding information on Financial Aid. All students, regardless of nationality, citizenship, or residency status, are eligible, with appropriate grade point average, to apply for scholarships.

Scholarships and Fellowships Administered by Departments

Students receive scholarships, fellowships, grants, or stipends through the various departments. Federal, state, and private industry support programs of this nature are largely directed to students doing graduate work or to students preparing for some special field of work. Students who have decided on some particular area of study should check with an adviser in the department of their major to determine what scholarship, fellowship, grant, or stipend support might be available to them.

Fellowships for Graduate School

As a general rule, students planning graduate work should inquire about graduate fellowship support from the graduate school to which they are applying. The San Diego State University Scholarship Office receives the annual announcements on most national awards including Fulbright, Ford, Rotary, Rhodes, and Marshall scholarships. Students interested in fellowships of this type are encouraged to discuss their applications with members of the San Diego State University faculty who have themselves in the past received these fellowships. Scores from the Graduate Record Examination, Law School Admission Test, Admission Test for Graduate Schools of Business, Dental Admissions Test, or Medical Colleges Admission Test, as appropriate, are required in applying for most fellowships; therefore students should take the appropriate test early in the fall of their senior year. Information concerning these tests may be obtained from the San Diego State University Test Office, SS-2549, (619) 594-5216.

San Diego State University Scholarships Scholarship Philosophy and Eligibility Requirements

A scholarship is a monetary award given to outstanding students to recognize them for their academic excellence, leadership, achievements and promise.

They are provided by private donors, corporations, professional associations and alumni.

High school seniors and undergraduate or graduate students may apply for scholarships awarded by their major department and/or the San Diego State University Scholarship Committee.

Students apply on their own initiative for the University Scholarship Program. Some scholarships listed require special applications and/or have a specific selection process.

Competition is based on outstanding academic achievement, campus and extracurricular activities, employment, and an essay. Undergraduates must have a 3.50 overall GPA or a 3.70 in the last 30 units of university work. Graduate and postbaccalaureate students must have a 3.50 overall GPA for work completed after the bachelor's degree or, in the absence of completed postbaccalaureate units, a 3.50 overall undergraduate GPA or a 3.70 in the last 30 units of university work. High school seniors must have an unweighted 3.50 cumulative GPA (excluding physical education and military science) for all work completed in the first seven semesters.

Applications for the SDSU scholarship program are available in the Scholarship Office, from all department secretaries, and in San Diego County high school and community college counseling offices. You may also write or call the SDSU Scholarship Office, San Diego, CA 92182-0587; telephone (619) 594-6180. Send a self-addressed, stamped envelope and note if you are currently a college or high school student. Long distance return calls are no longer budgeted.

Applications are available each year during one application period, November through early February. The SDSU scholarship application must be filed or postmarked not later than the established early February deadline. Students need to submit only one application for the SDSU scholarship program. Individual results will be mailed to all applicants during June for the following academic year.

The dollar amount per scholarship is subject to change based on registration costs and investments by the SDSU Foundation. There is no limit to the number of scholarships for which a student may be considered. *Note:* Freshman Scholar Awards are only available to entering freshmen who meet the University merit-based eligibility requirements. Several \$6,000 awards (\$750 per semester) are designed to partially cover the cost of registration fees for four years of undergraduate studies providing the recipient maintains a minimum 3.5 grade point average.

In addition to SDSU scholarships, the Marshall, Fulbright, Rhodes, and Rotary scholarships are prestigious international scholarships that are given annually to students pursuing educational goals outside the United States. Eligibility standards for these scholarships are closely related to those established for the SDSU scholarship program, but application forms and deadlines are separate from the program. Students may seek advisement regarding application at the SDSU Scholarship Office in late spring or September.

COLLEGE OF ARTS AND LETTERS

Africana Studies Department

African American
Kimbrough Memorial
Dewey and Jessie E. Mosby
Danny L. Scarborough Memorial
Shirley Wade Thomas Memorial

Anthropology Department

Norton Allen

Classics and Humanities Department

Martha Biehl Memorial
Friends of Classics Charter
Viola Granstaff Memorial

Economics Department

CPE, Alumni
CPE, Chadwick
CPE, Freeman
CPE, Weiss
Economics Intern Program

English and Comparative Literature Department

Creative Writing
Ruth G. Keen Memorial
Mindy Gates O'Mary Memorial
Kenneth and Dorothy Stott Memorial

Geography Department

William Finch Memorial
Lauren C. Post Memorial

History Department

Andrew Appleby Memorial
Katherine Ragen Memorial
Lionel Ridout Memorial
Kenneth and Dorothy Stott
Jon Sutherland Memorial

Japanese Language Program

Japan Travel
Kyocera
Tohatsu Awoki/Touche Ross

Religious Studies Department

James E. Sparks Memorial

Sociology Department

Maxine Johnson Memorial

Spanish Department

Clifford H. Baker Memorial
Andrea O'Donnell Memorial
Raymond D. Weeter

Women's Studies Department

Friends of Women's Studies

College of Arts and Letters Miscellaneous Scholarships

Slim Solheid Memorial

COLLEGE OF BUSINESS ADMINISTRATION

School of Accountancy

Accountants Associates
Considine and Considine
Elias J. Katzen Memorial
Bernard Nydam Memorial
Vern Odmark Memorial
Toole Family
Price Waterhouse

Financial Services

John Burnham & Sons
Robert R. Driver Company
Farmers Insurance
Ed Fletcher Foundation
Irving Katz Memorial
Professional Insurance Agents
San Diego Mortgage Bankers

Information and Decision Systems Department

Georgia Amsden Memorial
Chevron/Information Systems
Alvin Morrison Memorial
Outstanding Student Fund

Management Department

David W. Belcher Memorial
Frances Torbert Memorial

Marketing Department

Connie Fotinos Memorial
W.A.F.C.

Real Estate

John Cotton Memorial
Robert C. Hird Memorial

College of Business Administration Miscellaneous Scholarships

Buck Foundation
Business Department Minority
College of Business Internship Program
Robert Hess Memorial
Pacific Telesis-MBA
South East Asian Alliance
Bill Thurman, North Island Federal Credit Union
Christina Lynn Velasco Memorial
Monica Williams Memorial

COLLEGE OF EDUCATION

Patricia Calhoun Memorial
California Retired Teachers Assoc.
Ben Ziri Caravan
Clara de Escudero Memorial
Delta Kappa Gamma, Nu Chapter
Alfred Einstein Living Trust/Vera Einstein Memorial
The Alfred Harcourt Foundation
Dr. Peggy Hawley
Houck Memorial
Judy and Donald James Memorial
Kappa Beta Nu
LaPray/Schmoeck
Raymond Letsinger Trust
Catherine Y. Lodge Memorial
Robert E. McCabe Memorial
Richard Servey Memorial
Vickie Sleiman-Equity in Education
Dr. Robert D. Smith, Jr.
John Paul Stone Memorial
Leslee Teincuff Memorial
Timothy Telford Memorial
Upward Bound Alumni/Robert E. McCabe
Gail White Memorial

COLLEGE OF ENGINEERING

Civil and Environmental Engineering Department

American Concrete Company
Association of California Water Agencies
E. F. Cook Associates
Minority Engineering Program
Byrl Phelps/San Diego Engineers Club
Pountney and Associates, Inc.
Woodward-Clyde Consultants

Electrical and Computer Engineering Department

Electrical Engineering Department
Electrical Manufacturing and Coil Winding Associates

Mechanical Engineering Department

ASHRAE

College of Engineering Miscellaneous Scholarships

Achievement Rewards for College Scientists (ARCS)
Ball Corporation
David G. Fleet
S.L. Frankel
Eric Gaipa Memorial
General Dynamics
Lockheed Leadership
Louise McNally
NACME
Nasland Engineering
National Science Foundation
S. Falck Nielsen Family
Structural Engineers
Cheng-Mo Sun Memorial
Donald Grey Wilson
Stuart Wong

COLLEGE OF HEALTH AND HUMAN SERVICES

Communicative Disorders Department

Dorothy Baronofsky Memorial
Gamma Upsilon, Sigma Alpha Sorority
Nella Feldman Gross Memorial
Barry W. Jones Memorial
George A. Kopp Memorial
Paul Pfaff Memorial
Kala Singh Memorial

Community Health Education Department

Lori D. Lemas Memorial

School of Nursing

Alvarado Health Foundation
Lorraine Sears Bryant Memorial
Emeritus Faculty Nursing
Katherine R. Foley Memorial
Dorothea Lambert Memorial
Rueben Marks Memorial
Christopher Murray Memorial
Lottie E. Olberg Trust
Maria Sardinias
Petra Steinhauer Memorial
Frances Shimp Tidwell Memorial

School of Social Work

Mabel Naylor Danalis Memorial
Jaime Brenner Geller Memorial
Mark Todd Sandways Memorial
Ernest Witte Memorial

COLLEGE OF PROFESSIONAL STUDIES AND FINE ARTS

Aerospace Studies

ROTC

School of Art, Design and Art History

Art Department Fund
Patricia Clapp Memorial
Frances Ellsworth Memorial
Darryl Groover Memorial
Isabel Kraft Memorial
Paul Lingren Memorial
Virginia Thorsen Memorial
Ellamarie Woolley Art Students Assistance Fund

Child and Family Development Department

Thair Milne
Barbara Rosenblatt Memorial
Georgia Tait Stooke Memorial

School of Communication

Clayton Brace Memorial
James Copley Foundation
Steve Harwood Memorial
Harold Keen Memorial
KFMB
Jack Mills Memorial
Jane Nelson Memorial
Gracia Ogden Memorial
Val Ryser Memorial
Percie Belle Senn Memorial
Kevin Simmons Memorial
Reggie Smith Memorial

Drama Department

Joseph J. Bellinghiere Memorial
Jeweldean Brodie Memorial
Greg C. Crowder
Drama Department Patron's
William B. Hektner
Sybil E. Jones Memorial
Gordon Lusk Memorial
Jennifer McCabe Memorial
Marion Ross
Hunton Sellman Memorial
Henry Stanton Memorial

Exercise and Nutritional Sciences Department

Adult Fitness Program
William Ellis Memorial
Mary Quam Hawkins Memorial
Reet Howell Memorial
Margaret "Robin" Murphy Memorial
Miriam Paine Memorial
Physical Education Fund
Barbara Rosenblatt Memorial
William Schutte Memorial

School of Music and Dance

Nadine Bolles Memorial
Jean Taylor Brown Memorial
Marguerite Ellicott Memorial
Joseph J. Fisch
Elsie Hilland Fox Memorial
M.H. Golden
Joseph E. Johnson
Kiwanis Club
Lieber-Flower
Jan Lowenbach, Musicology
Alvin Morrison Memorial
Music Fund
Musical Theater
Bessie S. Purdy Memorial
William Resnick
Lucia Robertson Memorial
Edith Savage Memorial
SDSU Opera Theatre
Sigma Alpha Iota
SPEBQSA
Christine Springston Memorial
Paul C. Stauffer Memorial
University Band
George Willis
Marvin Yerkey Memorial

School of Public Administration and Urban Studies

Cotton/Blend/Associates, Inc.
John Fowler

Recreation, Parks and Tourism Department

Bonnie Jean Gore Memorial
Recreation Faculty

**College of Professional Studies and Fine Arts
Miscellaneous Scholarships**

Alicia Marquez Memorial
College of Professional Studies and Fine Arts

COLLEGE OF SCIENCES**Astronomy Department**

Awona Harrington Memorial
William F. Lucas Memorial
Clifford and Ruth Kinnell Smith Memorial

Biology Department

Jordan Covin Memorial
Crouch Scholarship for Avian Behavior
Mabel Myers Memorial
Rancho Santa Fe Garden Club
Systematics and Evolutionary Biology

Geological Sciences Department

AMOCO Foundation
R.C. Baker
Baylor Brooks
Chevron/Geology
Rollin and Carolyn Eckis
Geology Alumni Fund
Geology Fund

Mathematical Sciences Department

Maurice Lemme Memorial

Physics Department

Optics-Physics
Physics Summer Research
Skolli Fund

Psychology Department

Dorothe Frick Memorial
Dr. Edward Geldreich Memorial
Social Psychology
Doris Townsend Memorial

**College of Sciences Miscellaneous
Scholarships**

Achievement Rewards for College
Scientists (ARCS)
Frank Alverson Memorial
David G. Fleet
Harry E. Hamber Memorial
Robert Harwood Memorial
Hearst Foundation
Patricia Lozada Memorial
Louise McNally
National Science Foundation
Paul G. Peninger Memorial
San Diego Audubon Society
Science Student Fund
William Trowbridge Memorial

General Scholarships

In addition to the University Scholarship Committee Awards and the College, Department and School Scholarships, there are a number of general scholarships available. Recipients for some of these scholarships are chosen by the University Scholarship Committee; recipients for others are chosen by the donors on the basis of nominees sent to them by the University Scholarship Committee.

Advocates for Women in Academia
Aztec Shops
Donald Basile Memorial
Mary Earnest Bean Memorial
Brian Billotte Memorial
Thomas C. Bishop Memorial
Maryl Brooksher Memorial
Murray Callan Memorial
Campbell/Cartier Memorial
Cesar Chávez Memorial Book Scholarship
Copley (Disabled Students)
Thomas Cortez
Tony Esse Memorial
Eric Etebari
Martha Farnum Memorial
Clyde and Myrtle Fields Family Memorial
Fox Foundation
Johanna M. Fox Memorial
General Fund
Arthur C. Harris Memorial
Kathleen Horn Memorial
International Students
John Jester Memorial
Mary and Phillip Kantor Memorial
M. Lorin Kemp Memorial-ROTC
William and Edna LaSalle Memorial
Lipinsky Family
May S. Marcy Memorial
Maxey Family
Maxey/Point Loma
Arthur Tennes Moe Memorial
Mortar Board Alumnae of San Diego

National Hispanic Scholarship Fund
Naval Science/ROTC
O.A.S.I.S.
James O'Hara II Memorial
Palz/Nicholson
Emma Pellettieri Memorial
Phi Alpha Alpha Sorority
Carolyn Pittman Memorial
Foster S. Post Memorial
John F. Reeves Memorial
Residence Hall Association
Herman Roemmich Memorial
Rotary International District #5340
Bill Ruzich Memorial
San Diego Insurance Adjusters
San Diego State University Memorial
San Diego State University Retirement Association
San Diego State University Women's Association
Etta Schweider Memorial
Robert Patterson Shields Memorial
Jane Kirby Smith Mortar Board Scholarship
David Springer Memorial
Sigma Phi Epsilon
Frank G. Tait Memorial
Terry Lynn Thompson Memorial
Transportation Club of San Diego
Wilmia Tyler Trott Memorial
D.B. Williams Memorial
Peggy Wolter Memorial
John Yarborough Memorial
Young Black Scholar Fund
Mr. and Mrs. John Zweck Memorial

Special Programs and Services

Academic Computing

The University provides a sun SPARC Server (ROHAN running UNIX), and a VAX (UCSVAX running VMS) for academic computing. A CRAY C98/8128 Supercomputer located at the San Diego Supercomputer Center is available for assigned coursework and research projects. All are available to the university community via terminals or microcomputers of TELNET. TELNET also links students to specialty computing centers located at other California State Universities. The University has over 1,000 microcomputers in 49 labs provided through individual departments and colleges. Student computing and e-mail accounts on ROHAN and UCSVAX are available through a student account system. This system allows enrolled SDSU students to create their own accounts on these machines via TELNET from any terminal on campus or via a modem from off campus. Enrolled is defined as a student who is registered for classes during the current semester.

This computing environment provides access to scores of software products including programming languages, wordprocessing, spreadsheets, presentation packages, relational databases, statistical software, World Wide Web browsers, and large databases such as Compustat.

A World Wide Web home page is available at "http://www.sdsu.edu/".

Academic Skills Center

(See General Mathematics Studies and Developmental Writing Program in this section of the catalog.)

Alumni Association

Membership in the San Diego State University Alumni Association is open to those persons who have an abiding interest in and commitment to the growth and future of SDSU and the community it serves.

The Alumni Association is a dynamic, exciting organization whose purpose is to promote the welfare of the University. It offers a number of programs and services designed to meet the variety of needs and interests of its alumni, including library privileges, reduced admission to many cultural activities, and Extended Studies mini-courses, workshops and conferences.

The Alumni Association also supports the University's annual fund drive to raise private funds for innovative educational programs beyond the basic curriculum and to meet numerous needs of the University community.

In addition, the Alumni Association sponsors an Annual Awards Gala every spring honoring alumni of the University, provides scholarships for students, and provides input regarding University programs and policies.

The Alumni Association publication for alumni and friends of the University is the quarterly *SDSU Magazine*.

For further information, phone the Alumni Office at (619) 594-6907.

Associated Students of San Diego State University

The Associated Students of San Diego State University (A.S.) is a unique, full-service organization. The A.S. provides a variety of programs, services and activities for SDSU students as well as faculty, staff, alumni, and the public. Managed by elected student executives, the Associated Students programs range from student employment and government, to recreation, entertainment and child care. An independent, not-for-profit corporation, it is funded by the student activities fee and revenues collected from programs and services. Associated Students can be reached by calling 594-6555.

Student Government. The Associated Students sponsors extensive student leadership programs designed to encourage active student participation in the decision-making policies of the University. The A.S. Council is the voice of the SDSU student body. Composed of one representative per 1500 students and four executive officers, the Council is responsible for the A.S. \$7 million annual budget and for formulating policy. Elections held each semester allow for the selection of individuals to fill one-year terms on the Council. Meetings of the A.S. Council are weekly, open sessions.

Other student government activities include monitoring academic policies and managed programs; appointments to educational or campus-related committees; lobbying to provide student input to city, county, state and federal governments; and representing SDSU's interests with the California State Student Association. Call 594-6487 for more details about student government programs.

Aztec Center. The hub of student activity at SDSU, Aztec Center is the headquarters of the Associated Students and its staff. Aztec Center features study lounges, meeting and conference rooms, the Information Booth, the Ticket Office and businesses that include Pak Mail, University Student Travel Network, Ralph's Hair Place, and USE Credit Union. The Center also houses Monty's Den, a popular campus eatery and meeting place for students that offers many food selections. For more information, call 594-6551.

A.S. Recreational Programs. Associated Students manages most of the recreation programs available to SDSU students, faculty, staff, alumni, and the public providing low cost leisure and fitness programs for fun and class credit.

- **Aztec Center Bowling and Games.** One of the most affordable places on campus. Newly renovated, includes AMF automated scoring, over 40 video games, billiards, and foosball. Call 594-6561.

- **Mission Bay Aquatic Center.** The world's largest instructional waterfront facility. Located at 1001 Santa Clara Point in Mission Bay Park, offers classes and recreational opportunities in surfing, sailing, windsurfing, waterskiing, rowing and more. Equipment rentals and facilities for group meetings or barbecues. Bus transportation from SDSU available on Transit Route 81. Call 488-1036.

- **The Leisure Connection.** A one-stop leisure and outdoor recreation center including health and fitness, dance, music, arts and crafts, food and beverage, multicultural programs and tennis. Equipment rental, craft and photo studios, plus adventurous outdoor programs with trips ranging from the Sierras to the Grand Canyon offered at a low cost. Located at 5828 Hardy Ave. Call 594-6994.

- **Recreational Sports.** Offers recreational facilities at Peterson Gym and Terry Pool, plus intramural team sports, informal recreation, weight training, sport tournaments and courts for tennis, racquetball and wallyball. Intercollegiate sport club teams participate nationally. Visit the Rec Sports office at 196 Peterson Gym. Call 594-6424.

Child Care Programs. Associated Students provides loving child care and preschool learning programs through two facilities, the Campus Children's Center and the Faculty/Staff Children's Center. Programs range from part-time to full-time care for children ages six months to five years, with all programming provided by expertly trained teachers and staff members. For more information, call 594-6359.

Open Air Theatre and Entertainment. A.S. offers multiple programs that provide fun and versatile entertainment. The 4,600 seat Open Air Theatre features regular performances to sellout crowds. Other offerings include concert series, lecture series and on-campus movie screenings sponsored by the Cultural Arts and Special Events Board. Call Aztec Center Ticket Office, 594-6947 for further information.

Aztec Shops, Ltd.

(Campus Store, Food Services, Copy Services)

Aztec Shops, Ltd. is a California not-for-profit corporation which has existed since 1931. It owns and operates such services as the Campus Store, Food Services, and Copy Services. Aztec Shops is not funded by the State of California or the University. Its board of directors is composed of faculty, students, and staff of SDSU.

The Campus Store provides required textbooks, assigned class materials, reference works, school supplies, computer supplies, software and hardware, SDSU items, and a selection of over 45,000 general interest books. The Pulse, located inside the Campus Store, offers a wide selection of copying and other related needs.

A large selection of art supplies may be found at Art Etc. which is located in the old Art Building. Aztec Shops also operates stores at Fashion Valley Mall, SDSU/IVC, CSU San Marcos and Imperial Valley College. You need not be a student to shop in any of these stores.

Food Services includes: The MarketPlace, West Commons, The General Store, Aunt Mary's, Courtyard Cafe, Betty's Hotdogger, Sub Connection, the Faculty/Staff Centre, Rice King, DJ's Deli, Monty's Market (three locations), Baskin Robbins Ice Cream Shop, and Catering. The MarketPlace is open weekends. Other operations, which are leased from Aztec Shops include Piccolo, Allegro, Monty's Pub, Sbarro, Don Diego and Arby's.

Residence Hall meal plans available include a 14 or 10 meal plan. Plans are valid at The MarketPlace, West Commons, Rice King, Courtyard Cafe, DJ's Deli, and the General Store. Students, faculty, and staff may also purchase an Aztec Card which uses the SDSU ID card. It operates similar to an ATM card and can be used at the Campus Store, Monty's Market and all Aztec Shops Food Service locations.

Aztec Shops is dedicated to providing quality services to the campus community. Questions or concerns may be directed to the corporate offices on the second floor of the East Commons building.

The June Burnett Institute for Children, Youth, and Families

The June Burnett Institute was created in 1985 at the San Diego State University Foundation from a bequest from the estate of June Estelle Burnett. The Institute is dedicated to developing the potential of all children, youth, and parents in a manner that is sensitive and responsive to cultural, social, and economic differences and needs. It believes that its purposes can be best developed through combined funding approaches that foster cooperation and collaboration, training, and interdisciplinary multicultural approaches that promote understanding among children, youth, and families. An advisory board composed primarily of faculty and community members directs the activities of the Institute.

The Institute's Youth Services Division coordinates the Twelve Together Program for eighth grade middle school students. The Institute's Parent Services Division sponsors the Home/School Partnership - a collaboration of five organizations. The Volunteer Division administers the YMCA/CSU PRYDE-AMERICORPS Program and the Safe Zones for Learning AMERICORPS evaluation. The Evaluation Unit provides evaluation services to numerous community agencies.

The Urban Community Services program blends many smaller projects to serve the needs of children, youth, and parents in the broader San Diego community.

The Burnett Institute Fellows program sponsors a select number of faculty who wish to assist the Institute in its research interests.

Other Institute programs involve middle school innovation, exploring ways to prevent school dropouts and to support the partnership between schools, parents, and nonprofit community service agencies. The Institute is located at 6310 Alvarado Court, telephone (619) 594-4756 for more information.

California State University Program for Education and Research in Biotechnology (CSUPERB)

A. Stephen Dahms, Director

The California State University Program for Education and Research in Biotechnology (CSUPERB) exists to provide a coordinated and amplified development of biotechnology research and education within the university system; to foster competitiveness both on the state and national levels; to facilitate training of a sufficient number of biotechnology technicians and scientists; to catalyze technology transfer and enhance intellectual property protection; and to facilitate the acquisition and long-term maintenance of state-of-the-art biotechnology resource facilities across the university, such as the Microchemical Core Facility and the Macromolecular Structural Analysis Resource Center, both localized at SDSU. It facilitates interdisciplinary cooperative activities between the departments of Biology and Chemistry on all campuses and between faculty and from a number of allied academic and research units such as bioengineering, agricultural biotechnology, environmental and natural resources, molecular ecology, and marine biotechnology. It also serves as the official liaison between the CSU and industry, government, the Congressional Biotechnology Caucus, and the public arena in biotechnological matters. CSUPERB operates through a Director and an Associate Director, an Executive Committee of 11, and a Governing Board composed of 45 representatives of academic and research units from the 22 campuses.

Campus Children's Center

The Associated Students' Campus Children's Centers provide child care for children of SDSU students, faculty, and staff. The academic year program is a parent participation program and gives priority to children of students. Other factors that determine priority are financial need and application date. The Campus Center serves children six months through five years of age, who are in good health. The year-round program serves children two to six years of age and gives priority to children of faculty and staff. All applications are considered regardless of race, religion, creed, sex, national origin, or handicap.

Tuition for children enrolled during the academic year is determined on a sliding fee scale based on family size and income. The year round program fees are a set fee.

The program is designed so that a variety of activities are offered that will foster the child's social, emotional, intellectual, and physical development and help the child view himself/herself and the environment positively.

The programs are staffed by professional and student employees, volunteers and Child Development majors. Parents of children enrolled in the academic year program make a weekly contribution of time as teachers in the classroom and serve on a fundraising/publicity committee. Parent participation is not required in the Faculty/Staff Children's Center. Parents have the opportunity to serve on the Campus Children's Center Board, which is composed of parents and other campus representatives.

The hours of operation are: Campus Preschool 7:30 a.m. to 5:30 p.m., Monday through Thursday; Toddler Classroom 7:30 a.m. to 5:00 p.m., Monday through Thursday; Friday, 7:30 a.m. to 4:00 p.m. The Infant Classroom is open Monday through Friday 8:00 a.m. to 2:00 p.m. The Faculty/Staff Preschool is open 7:00 a.m. to 6:00 p.m., Monday through Friday. Call 594-6359 for more information.

Communications Clinic for Speech, Language, and Hearing Disorders

Administered by the Department of Communicative Disorders, the Clinic is staffed by graduate students and supervised by department faculty. It provides assessment and remediation services for SDSU students, staff, faculty, and the community. Comprehensive diagnostic and treatment programs are available for children and adults, who may present such communicative difficulties as delayed speech/language development, voice, fluency or articulation disorders, aphasia, cleft palate, cerebral palsy, loss of communication function, hearing loss and deafness. Also provided are services for bilingual/multicultural clients and speakers of English as a second language. Audio-logic services provided by the Clinic include hearing assessment, hearing aid evaluation and selection, assistive listening device evaluations, earmolds, ear protectors, hearing conservation and speech reading/aural rehabilitation therapy. The clinic is located at 6330 Alvarado Court, Suite 100, (619) 594-6477.

Developmental Writing Program

The Developmental Writing program, in the Department of Rhetoric and Writing Studies, offers assistance to all students at any university level, including bilingual and international students, who wish to improve reading and writing skills. The program's services are available on an enrollment basis only.

In addition, the program assists students in completing the University's lower division writing competency requirement. The University requires students to demonstrate writing proficiency consistent with its established standards and, accordingly, requires all entering students to pass various writing competency tests. Students who fail any of these tests should enroll in appropriate developmental writing coursework in the Department of Rhetoric and Writing Studies during their first semester at SDSU and continue until successfully completing it.

General Mathematics Studies

The General Mathematics Studies program offers assistance to all students at any university level who wish to improve their mathematics skills. These services, which are available on an enrollment basis only, are designed to assist students in completing the SDSU Mathematics Competency requirements, including the CSU ELM. The University requires students to demonstrate mathematics proficiency consistent with its established standards, and accordingly, requires all entering students to pass various mathematics competency tests. Students who fail these tests should enroll in the appropriate General Mathematics Studies course in their first semester at SDSU and continue until they are able to demonstrate mathematics proficiency.

Office of the Executive Director for International Programs

In recognition of the rapidly expanding number and importance of international activities on the San Diego State University campus, the University has created the Office of the Executive Director for International Programs with specific responsibility for coordinating and facilitating the development of the diverse international programs and mission of the University. The executive director serves as the University's primary contact person for international programs and represents the University on international matters to external agencies and institutions. In addition to coordinating all international faculty and student exchange programs, the Office for International Programs serves as an information clearinghouse regarding international projects, funding opportunities, and academic programs and services that have an international component.

International Faculty Exchanges

In order to enhance the international character of instruction and research, San Diego State University has developed a continuing program of faculty exchange with foreign universities. Currently, the University has formal arrangements to exchange professors periodically with universities in Western and Eastern Europe, Canada, East Asia, Latin America, Africa, and the Middle East. Over 100 international scholars visit the San Diego State University campus each year to pursue scholarly research, participate in academic or professional programs, and share their international perspectives with the university community.

International Student Exchanges

In addition to the CSU International Programs, San Diego State University has entered into special institutional arrangements with selected foreign universities that provide both undergraduate and graduate students the opportunity for study abroad. Currently San Diego State University has student exchange agreements with universities in Australia, France, Germany, Japan, Mexico, the Netherlands, the People's Republic of China, Spain, Taiwan, Turkey, and the United Kingdom.

For more information about the University's international programs and international faculty and student exchanges, contact the Office of the Executive Director for International Programs, Administration Building, Room 222, (619) 594-1354.

Living/Learning Center (LLC)

The Student Resource Center, in conjunction with the Housing and Residential Life office and the Division of Academic Affairs, offers freshmen students this residence hall option as one of the Freshman Success Programs. LLC freshmen live together in Maya Hall. Participants are automatically enrolled in the University Seminar, the centerpiece for an integrated curriculum of guaranteed courses during the first semester. Advising is available to assist students with optional curriculum choices. Special workshops, study groups, tutoring, faculty mentoring, social activities, and access to computers and reference materials are provided during the entire year.

Media Technology Services

Media Technology Services provides support to faculty and staff in acquisition and distribution of instructional media, in distribution and maintenance of audiovisual equipment, and in design of instruction. The center consists of three units: Distribution, Production, and Instructional Development. The coordinators provide leadership to the University in identifying new approaches in the use of instructional technology.

Distribution provides support in the selection and use of instructional materials and the distribution and maintenance of audiovisual equipment. Services include the checkout of media and equipment for classroom use. Films, videotapes and videodiscs may be scheduled for in-classroom projection or transmitted over the campus 29 channel closed circuit system. Special facilities and services include: (1) Compressed Video Room for video-teleconferencing and distance education using two-way interactive video and audio, (2) Viewing Room with high quality computer and video projection.

Production aids in the design and production of instructional materials. Original videotape programming and multimedia presentations required for specific instructional purposes are developed and produced by media production staff. A color television studio is operated and maintained. Graphic design and photography for instruction and for research is provided.

The Instructional Development program offers professional assistance in instructional design, course design, teaching techniques and assessment. Specific services include (1) providing assistance in instructional materials development, (2) assessing and selecting instructional methods, (3) facilitating course design, (4) providing faculty with opportunities to analyze their instruction, (5) conducting

workshops on skills and techniques of teaching and testing, and (6) providing a facility for faculty to produce their own media and learn about new technology.

Navy Officer Programs and Scholarships

San Diego State University maintains a liaison with the Navy Officer Programs Office in San Diego. This liaison provides students with access to the many opportunities available to college students throughout the Navy, including scholarships for up to \$42,000. Call 1-800-228-8961 for additional information.

Baccalaureate Degree Completion Program. Sophomores, juniors and seniors who qualify can earn up to \$1200 each month while they finish their last one, two or three years of college – no uniforms or drill required. Scholarships are available to sophomores, juniors and seniors in all majors who have a 2.7 grade point average or above. Positions in aviation, surface warfare, business management, personnel management, and information systems is guaranteed after college graduation.

Navy Engineering Programs. Scholarships are available to students in technical majors who have at least a 3.0 grade point average. Those who are interested and qualified receive more than \$1300 each month plus benefits while they finish their last one or two years of undergraduate study. The scholarship leads to a position as an instructor, research or operating engineer for the Navy, and a commission as a naval officer.

Medical School and Dental School Scholarships. For students applying to medical or dental school, a scholarship is available which will cover the cost of tuition and books and provide a monthly payment while in medical school. Initial requirements are application to an accredited medical school and competitive GPA and MCAT/DAT scores.

Allied Health Profession Opportunities. The Navy Medical Service Corps offers commissions to clinical, scientific and administrative professionals in the health care field. It is comprised of several specialties that require either a baccalaureate, masters of doctorate degree.

Nurse Corps. Limited scholarships are available for junior and senior nursing students with top scholastic performance.

Students are encouraged to seek information and plan ahead if they are interested in adding any of these programs to their career options. More information on all programs is available by calling or writing to the Officer Programs Office, NRD San Diego, NTC BLDG 335, San Diego, CA 92133-6800; telephone 224-2856.

Parking and Transportation

Where possible, carpooling or use of alternate modes of transportation is recommended. For carpool information call 594-5224.

San Diego Transit has seven bus routes connecting the metropolitan area with service to the University Transit Center. These are routes 11, 13, 36, 55, 81, and 115. Bus schedule racks are located on campus at the Aztec Center Information Desk. The San Diego Transit office at 233-3004 will provide further information concerning bus routes, fares, and services.

On-campus parking is by permit only. Parking structures are located on the south, east and west perimeters of the campus, in addition to student and faculty/staff parking lots. Visitors are directed to the Information Kiosk on Campanile Drive for directions to appropriate parking areas. For further information on parking at the San Diego campus, contact the Department of Public Safety, 594-6671. For visitor parking at the Imperial Valley Campus, call 357-5500.

Prelaw Program in Cooperation with California Western School of Law

San Diego State University and California Western School of Law offer a cooperative program that allows selected students to apply first year law courses as elective credits in satisfaction of requirements for a bachelor's degree at San Diego State University. This program requires careful planning and is generally recommended only for mature students. Students in this program may select any undergraduate major at SDSU. However, it is important to note that participants must complete all general education requirements and all requirements for the major before beginning law school classes. Thus, students interested in the program are generally advised to select majors that allow for a significant number of elective credits.

Students in this cooperative program must apply for admission to California Western School of Law under the law school's normal admission procedures. In general, only those whose undergraduate grade point average (GPA) and score on the Law School Admission Test (LSAT) compare favorably with those of other applicants will be admitted.

Those admitted to California Western under this special program must complete a minimum of 91 units of undergraduate courses before beginning law school and may apply no more than 33 units of law school courses toward requirements for a bachelor's degree.

Students interested in the program should meet with undergraduate advisers in their major departments and prepare a course of study as soon after enrollment at San Diego State as possible. In addition, students are encouraged to contact the University Prelaw Adviser through the Department of Political Science, Nasatir Hall 127.

San Diego State University Foundation

The San Diego State University Foundation was incorporated in 1943 as an auxiliary organization authorized by the Education Code of the State of California. It is a nonprofit corporation, self-financed, and chartered to provide and augment programs that are an integral part of the educational mission of San Diego State University.

The Foundation serves the University in the following major areas:

- Development and administration of grants and contracts for faculty and staff research and educational projects;

- Administration of funds for more than 1,500 special programs including KPBS educational television and radio stations, the College of Extended Studies, and the Alumni and Development office;

- Financial administration of gifts and donations;

- Investment of endowment and other funds;

- Financial administration of student scholarship and loan funds;

- Management of a real property program whereby the Foundation acquires and provides space for grant and contract activity and leases property to the University and other campus auxiliaries;

- Development of property adjacent to the campus;

- Provides funds for the support of University programs, such as the Grant-in-Aid for Research Program for faculty, and financial support for graduate students;

- Administration of activities such as the June Burnett Institute for Children, Youth, and Families, and the Fred J. Hansen Institute for World Peace.

The Foundation, as a nonprofit corporation, is governed by a Board of Directors in accordance with its Articles of Incorporation and Bylaws. The principal function of the directors is to establish policies and guide the corporation in achieving its objectives.

San Diego State University Press

As the scholarly press for San Diego State University, San Diego State University Press publishes works of original research, as well as other meritorious academic and creative works that will further the intellectual mission of the University. Although high quality manuscripts from any source will be considered, the current focus of the Press is in these areas: Latin America and the United States Mexico

border, regional studies of the Pacific Southwest, and post-modernism. In addition to books, the Press also publishes under its imprint one journal, *Fiction International*.

The San Diego State University Press imprint is controlled by an editorial committee of scholars, appointed by the Vice President for Academic Affairs and the Senate. Financial accounting and coordination are provided by the San Diego State University Foundation.

Travel Study Program

London Semester Academic Program

The London semester academic program is administered by a CSU consortium. It offers students the opportunity to enroll in credit-bearing courses in the humanities, social sciences, and fine arts, many of which satisfy General Education requirements. To be eligible, students must be sophomores, juniors, or seniors in good academic standing. For further information, contact the Division of Undergraduate Studies, Administration Building, Room 225.

University Library

Administration

University Librarian: Bosseau

Associate University Librarians: Goodram, Kinney

Library Faculty

Emeritus: Barclay, Crisley, C., Crisley, P., Dickinson, Goodwin, Granrud, Greene, Harris, Hoover, Johns, Kinsey, Lamb, Leerhoff, Martinez, McAmis, Murdock, Neyndorff, Pease, Posner, Sandelin, Schalles, Shira, Sonntag, Szabo, West

Librarians: Cargille, Chan, Coleman, Dintone, Fikes, Harkanyi

Associate Librarians: Baber, Carande, Fields, Friedman, Goyne, McPhail, Muroi, Noland, Palsson, Perkins, Rogers, Turhollow, White, Wilson

Senior Assistant Librarians: Harley, Puerto, Shimoguchi

The University Library supports the curricular and research needs of the University community through the development of pertinent collections and the provision of services designed to facilitate access to information. Service desks are located in these units: Circulation, General Reference, Government Publications and Maps, Media Center, Microforms and Newspaper Center, Periodicals Reading Room, Reserve Book Room, Science Reference, and Special Collections.

The Library has automated acquisitions, cataloging, circulation, and serials control systems. Computer based bibliographic search services provide student/faculty access to 30 databases directly through library workstations, with hundreds of additional databases available through mediated approaches. The Library's Internet Online Network (LION) provides access to the library's databases within the library as well as from workstations around campus and off campus. The Library provides for interlibrary loan through a direct link with several thousand other libraries using the computer and telecommunications facilities of the OCLC bibliographic utility. The Library has a comprehensive instruction program, which includes course-related instruction, a library research workbook, term paper clinics, and tours.

The Library's holdings include 1,095,581 volumes (monographs and bound periodicals); 586,338 government documents; 3.5 million microforms; 62,391 reels of microfilm; 170,842 maps; 8,540 sound recordings; and 4,759 linear feet of archival papers. The Library receives 5,979 periodical and serial titles, excluding government publications. It is a depository for United States and California government publications, and receives selected United Nations publications.

University Seminar (General Studies 250, Experimental Course)

This one-unit, one semester elective course provides new students with a successful transition to the University. Selected faculty teach in small groups which they mentor throughout the semester. Students learn about taking responsibility for their education, campus culture, traditions and values, student-teacher relationships, academic concerns, personal development, choice of major and career planning, goal setting and academic planning, use of campus resources, and application of effective academic skills.

Academic Organization

Colleges

Arts and Letters

Business Administration

Education

Engineering

Health and Human Services

Professional Studies
and Fine Arts

Sciences

Imperial Valley Campus

College of Arts and Letters

Administration

Dean: Paul J. Strand
Associate Dean: Patricia Huckle
Assistant Dean for Student Affairs, Student and Faculty Relations: Ann M. Johns
Assistant Dean for Student Affairs, Student Advising and Special Programs: Leslie S. Johnson
Assistant Dean for Development: Barbara London

General Information

The College of Arts and Letters is at the very heart of liberal arts education at San Diego State University. Its programs in the humanities and social sciences are offered through 19 academic departments and several interdisciplinary programs, each of which is designed to help students to understand their role in society and to develop aesthetic sensibilities. Arts and Letters courses are offered to explore the experiences of men and women in society, their cultural expressions and practices, their languages, and their philosophical concepts. The College's highly trained, professionally active faculty seek to give students an awareness about the development of present knowledge and how to generate new knowledge. Students are encouraged to develop keen observation skills, the capacity to think critically, and the ability to express their views intelligently and sensitively as leaders.

Curricula Offered

Refer to the Courses and Curricula section of this catalog for a complete listing of program requirements and courses offered by departments within the College of Arts and Letters.

Doctoral Program Geography

Master's Degrees

Anthropology (M.A.), Asian Studies (M.A.), Creative Writing (M.F.A.), Economics (M.A.), English (M.A.), French (M.A.), Geography (M.A.), History (M.A.), Latin American Studies (M.A.), Latin American Studies (M.B.A./M.S.; jointly with the College of Business Administration), Liberal Arts (M.A.), Linguistics (M.A.), Philosophy (M.A.), Political Science (M.A.), Sociology (M.A.), Spanish (M.A.), Women's Studies (M.A.*).

Bachelor's Degrees

Afro-American Studies (B.A.), American Studies (B.A.), Anthropology (B.A.), Asian Studies (B.A.), Classics (B.A.), Comparative Literature (B.A.), Economics (B.A.), English (B.A.), European Studies (B.A.), French (B.A.), Geography (B.A.), German (B.A.), History (B.A.), Humanities (B.A.), International Business (B.A.; jointly with the College of Business Administration), International Security and Conflict Resolution (B.A.*), Japanese (B.A.*), Latin American Studies (B.A.), Linguistics (B.A.), Mexican American Studies (B.A.), Philosophy (B.A.), Political Science (B.A.), Religious Studies (B.A.), Russian (B.A.), Russian and East European Studies (B.A.), Social Science (B.A.), Sociology (B.A.), Spanish (B.A.), Urban Studies (B.A.), Women's Studies (B.A.).

* Subject to systemwide approval.

Minors

African Studies, Afro-American Studies, American Indian Studies, American Studies, Anthropology, Asian Studies, Chinese, Classics, Comparative Literature, Economics, English, Environment and Society, European Studies, French, Geography, German, History, Humanities, Italian, Japanese, Judaic Studies, Latin American Studies, Linguistics, Mexican American Studies, Middle East Studies, Philosophy, Political Science, Portuguese, Religious Studies, Russian, Sociology, Spanish, United States-Mexican Border Studies, Women's Studies.

Preprofessional Curriculum Prelegal

Certificate Programs

Applied Linguistics and English as a Second Language (ESL), Children's Literature, Geographic Information Systems, Spanish Translation Studies, Technical and Scientific Writing, United States-Mexico Border Studies.

Research Centers and Institutes

Asian/Pacific American Studies Consortium Ray T. Smith, Director

The Asian/Pacific American Studies Consortium is an association of faculty, staff, and students. The purpose of the Consortium is to develop Asian/Pacific American research capacities on campus and to provide for seminars, colloquia, and other public activities of benefit to Asian and Pacific American communities in the San Diego area.

The Consortium has acquired organizational records from sources such as the Union of Pan Asian Communities (UPAC) of San Diego. These and other Asian and Pacific American materials are maintained in the University Library. Inquiries about their use can be made through the Director of the Asian/Pacific American Studies Consortium.

The Consortium coordinates its work with the Center for Asian Studies. General liaison is maintained with the University Library.

Center for Asian Studies Murugappa C. Madhavan, Director

The Center for Asian Studies is an interdisciplinary organization in the College of Arts and Letters. Drawing upon faculty members from many fields, campuswide, it performs such services as (1) developing and administering the Asian studies program and relevant curricula at the undergraduate and graduate levels; (2) organizing symposia and seminars on Asia related topics; (3) securing and administering grants and other support for research and development in Asian studies; (4) coordinating and publicizing the activities of faculty engaged in Asian-centered studies; (5) responding to campus and community requests for information and services; (6) fostering campus and community interest in Asian studies.

Institute for Built Environment and Comparative Urban Research (BECUR) Lawrence A. Herzog, Director

The main purpose of the Institute for Built Environment and Comparative Urban Research (BECUR) is to: (1) study the impact of culture on the design and shape of the urban built environment; and (2) understand how cities in different cultural settings are being transformed by global processes. BECUR provides a forum for research

and dialogue among SDSU faculty and students on the cross-cultural nature of urban space and urban place. The Institute is administered by the College of Arts and Letters, and operates in conjunction with the College of Professional Studies and Fine Arts. Among its activities, the Institute promotes public lectures and conferences, research projects, and networking among urbanists, social science, planning, design and architectural scholars both in the region, as well as in other parts of the world. The Institute is located in Adams Humanities 3154; 594-6964.

Institute for Central and Eastern European Studies Yannis Venieris, Director

The Institute aims to increase understanding between the U.S. and Central and Eastern European countries through student and faculty exchanges, seminars, and educational programs. Another goal is to contribute to the process of economic growth and development in Central and Eastern Europe by making available to them appropriate human capital. The Institute has established a formal relationship with the Warsaw School of Economics and is in the process of doing the same with the Prague School of Economics, Czechoslovakia National Academy of Sciences, as well as similar institutions in Albania. The purpose of these relationships is to exchange faculty and students and to effect appropriate technological diffusion. Students and faculty can obtain more information by calling the Institute Office at 594-5503, Nasatir Hall 318.

China Studies Institute Fang-Hui Chou, Director

The China Studies Institute coordinates and supports on-campus teaching and research related to China. The Institute develops and fosters faculty and student exchange programs with Chinese universities and institutions of higher learning. Various cultural programs on China and activities on campus and in the community promote cultural awareness and understanding. The development of Chinese publications, audiovisual materials, periodicals, newspapers, and other resources on campus fosters relationships between San Diego State University and the Chinese community, as well as nurtures friendship between the Chinese and American peoples.

Donald I. Eidemiller Weather Station Edward Aguado, Director

The Donald I. Eidemiller Weather Station serves as a teaching and research resource. The station receives surface, upper-air, and forecast weather maps via satellite from the National Weather Service. The station also archives monthly and annual data published by the National Climatic Data Center and has been observing and recording local weather information for more than 35 years.

Center for International Business Education and Research (CIBER)

Allan R. Bailey and Paul J. Strand, Executive Co-Directors
Alvord G. Branan and Michael L. Hergert, Program Co-Directors
David Earwicker, Assistant Director

The Center for International Business Education and Research (CIBER), one of 25 such centers of excellence in the United States, was established in 1989 under the auspices of a grant from the U.S. Department of Education and is administered by the Colleges of Arts and Letters and Business Administration.

CIBER promotes: (1) interdisciplinary programs which incorporate foreign language and international studies training into business, finance, management, communications systems, and other professional curricula; (2) interdisciplinary programs which provide business, finance, management, communications systems, and other professional training for foreign language and international studies faculty and advanced degree candidates; (3) evening or summer programs, such as intensive language programs, available to members of the business community and other professionals, which are

designed to develop or enhance their international skills, awareness, and expertise; (4) collaborative programs, activities, or research involving other institutions of higher education, local educational agencies, professional associations, businesses, firms or combinations thereof, to promote the development of international skills, awareness, and expertise among current and prospective members of the business community and other professionals; (5) research designed to strengthen and improve the international aspects of business and professional education and to promote integrated curricula; and (6) research designed to promote the international competitiveness of American businesses and firms, including those not currently active in international trade.

The Center is located in Business Administration 428, 594-6023, (FAX) 594-7738.

International Population Center John R. Weeks, Director

The International Population Center (InterPop) promotes applied demographic research and the provision of technical assistance and consulting, especially focusing on population issues and policy within the San Diego/Tijuana region.

Although it is located in the Department of Geography, InterPop is a multidisciplinary facility, linking Center faculty from several departments on campus with Center associates from other organizations and universities in the San Diego region. The telephone number for the center is 594-2874.

Institute for International Security and Conflict Resolution Alan R. Sweedler and Dipak Gupta, Co-Directors

The SDSU Institute for International Security and Conflict Resolution (IISCOR) encourages and facilitates teaching and research in the multidisciplinary area of international security and conflict resolution. Specifically, topics such as nuclear armaments, international and intranational conflict, sociopolitical violence, and global environmental issues as they relate to security are covered.

The Institute is a joint effort of the Colleges of Sciences, Arts and Letters, and Professional Studies and Fine Arts. IISCOR is administered by two co-directors, advised by an executive committee consisting of faculty members representing the different disciplines that provide input into the study of international security and conflict resolution.

The Institute promotes teaching and research by organizing public forums, faculty and student seminars, developing appropriate curricula for undergraduate and graduate instruction and facilitating research and scholarly activities. SDSU plans to offer (subject to systemwide approval), through IISCOR, a multidisciplinary Bachelor of Arts degree in International Security and Conflict Resolution. More information is available by calling the IISCOR office at 594-6240.

Japan Studies Institute Alvin D. Coox, Director

The Japan Studies Institute coordinates and encourages research and instructional programs on campus concerning various aspects of Japan and nurtures ties between the University and organizations and individuals in the greater San Diego region interested in Japan and United States-Japan relations. It develops and fosters student internships and student and faculty exchanges between San Diego State University and Japanese institutions of higher learning; tuition-free exchange arrangements exist at present with seven public and private universities located throughout Japan. The Institute works closely with Japanese and American business, industrial, and banking establishments in San Diego, addressing research of mutual interest and drawing support for relevant Japan-focused courses, seminars, cultural events, lectures, forums, and workshops offered by the University. Since 1987, the Institute has offered a National Summer Program for incorporating Japanese studies into the undergraduate curriculum, cosponsored with the American Association of State Col-

leges and Universities. In summer 1990, the program was expanded to include a six-week on-site Study Tour of Japan led by the Japan Studies Institute director. The multidisciplinary Institute also oversees the Liberal Studies Major-Emphasis in Three Departments with a focus on Japan Studies.

The Institute supports the development of Japanese holdings in the University Library and Media Technology Services. The Institute operates under the jurisdiction of the College of Arts and Letters, but it draws faculty from across the campus.

Latin American Studies Thomas M. Davies, Jr., Director

The Center for Latin American Studies seeks to encourage teaching and research related to Latin America. It has primary responsibility for the administration of the Latin American undergraduate and graduate degrees. The U.S. Office of Education has designated the center as one of thirteen "National Resource Centers for Latin America," in consortium with the Center for Iberian and Latin American Studies at the University of California, San Diego. In conjunction with this award, the Center administers programs that focus on: (1) the initiation of a problem-oriented approach to Latin American studies through the creation of courses dealing with urbanization and modernization of the area; (2) the development of innovative methods of instruction in Spanish and Portuguese; (3) the provision of informative and in-service training programs for elementary and secondary school teachers; and (4) the provision of services for the general public through the sponsorship of conferences, workshops, lectures and films. The Center also assists in the development of the University library's Latin American holdings.

Lipinsky Institute for Judaic Studies Lawrence Baron, Director

The Lipinsky Institute for Judaic Studies, located in the College of Arts and Letters, serves to coordinate and support teaching and research in modern Jewish history and contemporary Jewish and Israeli affairs. Established with contributions from the San Diego community, the Institute provides financial support for an annual visiting professor from Israel, the annual Galinson-Glickman symposium on contemporary Israeli issues, and the Robert Siegel Memorial Lecture. It also complements regular course offerings by sponsoring lectures, developing library resources, fostering research, and conducting other activities that will promote the advancement of Judaic studies in the University and in the San Diego community.

Center for Public Economics

The Center for Public Economics is a facility of the Department of Economics to encourage research by students and faculty in all phases of nonmarket economic decision making, encompassing the following areas: (1) the functioning of federal, state and local fiscal systems, including the provision for and financing of public goods at each level; (2) the economic factors involved in environmental changes, in particular, their bearing on urban and local economic problems; (3) the economic dimensions of social decision making. The Center is designed to complement the curricular and degree programs in the Department of Economics and to be of service to related disciplines. It maintains research materials and facilities to assist research and publications in the area of public economics. The Center also maintains a computer accessed San Diego Regional Data Bank and subscribes to national and regional economic data services. Fiscal matters are coordinated through the San Diego State University Foundation. Financial support in the form of student

assistance is available for faculty research projects on subjects in public economics. The Center funds a number of student scholarships which are administered through the Scholarship Office. The Center is located in Storm Hall, room 349.

Institute for Regional Studies of the Californias Paul Ganster, Director

The Institute for Regional Studies of the Californias (IRSC) provides the University with a neutral forum for the investigation, discussion, and dissemination of information about the United States-Mexico border region. The Institute focuses on the three-state region of California, Baja California, and Baja California Sur and is also concerned with Mexico and important issues in the United States-Mexico relationship. IRSC also monitors border regions elsewhere in the world. Created in 1983, the Institute has undertaken multidisciplinary research projects on common regional concerns including transborder environmental issues, policy perspectives on the California-Mexico relationship, and the *maquiladora* industry. The Institute also maintains a research collection on the border region and takes an active role in Latin America and Mexico-related professional organizations. IRSC publishes the *Mexico Policy News* for PROFMEX (The Consortium for Research on Mexico), as well as papers and monographs on border-related issues and topics.

Other Institute activities include conducting binational symposia, improving communication between public and private sector representatives on both sides of the border, serving as a clearinghouse for information on transborder events, issues, and institutions, and encouraging the effective use of educational resources among the region's universities. The Institute serves as a major link between SDSU and Mexican institutions. IRSC has underway a major project on border environmental issues and public policy. IRSC serves as the SDSU link to the Southwest Center for Environmental Research and Policy, a congressionally established consortium of universities for research and policy studies on environmental issues of the border. The Institute is located in Nasatir Hall, Room 103.

Social Science Research Laboratory Douglas S. Coe, Director

The Social Science Research Laboratory (SSRL) was founded in 1974 to facilitate faculty research and to support a diverse set of instructional programs throughout the social sciences. Emphasizing public opinion polling and computer applications to social research, SSRL offers a wide range of services to University faculty, staff, and students, as well as to the broader San Diego community.

Services and operations are organized along the following lines:
Research Services offers a complete range of public opinion polling and survey research services, including sample design and execution, polling fieldwork, coding and data reduction, and data archiving and retrieval. The section maintains computer systems to support faculty research, undergraduate internships, and research assistant positions.

Instructional Services offers consultation in computer applications to social research, including a full range of statistical analysis programs. The section also provides a range of specialized workshops and demonstrations about computer uses and applications, data management, and analysis. Graduate and teaching assistantship positions are available to qualified students.

The SSRL is located in the Professional Studies and Fine Arts building, room 140.

College of Business Administration

The College of Business Administration and the School of Accountancy are accredited by the American Assembly of Collegiate Schools of Business at both the undergraduate and graduate levels. Several College of Business Administration programs are registered with the International Board of Certified Financial Planners.

Administration

Dean: Allan R. Bailey
Associate Dean and Director of Graduate Program: Michael L. Hergert
Associate Dean and Director of Undergraduate Program: Robert W. Wilbur
Associate Dean, Community Economic Development: Harold K. Brown
Assistant Dean for Student Affairs: Patricia N. L. Dintrone
Assistant Dean for Student Relations: Jeffrey Glazer
Director of Communications: Marsha Gear
Director of Development: Chris A. Audette

General Information

All undergraduate and graduate programs have enjoyed continuous accreditation since their points of first application. In addition to a commitment to maintain a high quality, accredited program, the College has the following goals: (1) to create and maintain a highly motivated educational environment for both students and faculty; (2) to evaluate all College activities, including formal classroom and research, in terms of their contributions to effective learning; (3) recognizing the dynamic nature of business and the society it serves, to instill within students an awareness of the necessity to embark on life-long careers of learning; (4) to prepare students for entry-level positions, which will provide advancement opportunities in their chosen careers; (5) to maintain an active, positive working relationship with the regional business community; (6) to offer graduate programs that prepare students for general management positions; and (7) to provide both degree and nondegree midcareer educational opportunities.

Curricula Offered

Refer to the Courses and Curricula section of this catalog for a complete listing of program requirements and courses offered by departments within the College of Business Administration.

Master's Degrees

Accountancy (M.S.), Business Administration (M.S.), Business Administration (M.B.A.), Latin American Studies (M.B.A./M.S.; jointly with the College of Arts and Letters).

Bachelor's Degrees

Accounting (B.S.), Finance (B.S.), Financial Services (B.S.), Information Systems (B.S.), International Business (B.A.; jointly with the College of Arts and Letters), Management (B.S.), Marketing (B.S.), Operations Management (B.S.), Real Estate (B.S.).

Minors

Accounting, Finance, Information Systems, Management, Marketing, Production and Operations Management, Real Estate, Small Business Management (available at Imperial Valley Campus only).

Certificate Programs

Accounting, Business Administration (available at Imperial Valley Campus only), Personal Financial Planning.

Credential Programs

Teaching major in each business field for the single subject teaching credential.

Research Centers and Institutes

Entrepreneurial Management Center (EMC)
Richard D. Brooks, Co-Director, Community Relations and Programming
Alex F. DeNoble and Sanford B. Ehrlich, Co-Directors, Education and Research

The Entrepreneurial Management Center (EMC) serves the emerging growth sector of the regional business community. The growth, development and success of new business ventures is essential to the future of the San Diego region. The mission of the EMC is to assist this sector of the economy through educational programming focused on the application of the underlying principles and perspectives of entrepreneurship offered to students, organizations and individuals.

The range of entrepreneurial programming offered includes: (1) support for entrepreneurial academic degree programs; (2) individual knowledge and skill development; and (3) organizational consulting and development programming. The entrepreneurial topics presented include the outcomes of the entrepreneurial process: the creation of wealth, new enterprises, innovation, organizational change, increased firm value, and organizational growth. The EMC focuses programming on both the entrepreneur and the entrepreneur process which results in a variety of outcomes essential to economic development.

The EMC sponsors an annual Business Plan Competition which provides students with an opportunity to present their business ideas to a distinguished panel of judges. The competition currently involves students from colleges throughout North America.

Center for International Business Education and Research (CIBER)

Allan R. Bailey and Paul J. Strand, Executive Co-Directors
Alvord G. Branan and Michael L. Hergert, Program Co-Directors
David Earwicker, Assistant Director

The Center for International Business Education and Research (CIBER), one of 25 such centers of excellence in the United States, was established in 1989 under the auspices of a grant from the U.S. Department of Education and is administered by the Colleges of Arts and Letters and Business Administration.

CIBER promotes: (1) interdisciplinary programs which incorporate foreign language and international studies training into business, finance, management, communications systems, and other professional curricula; (2) interdisciplinary programs which provide business, finance, management, communications systems, and other professional training for foreign language and international studies faculty and advanced degree candidates; (3) evening or summer programs, such as intensive language programs, available to members of the business community and other professionals, which are designed to develop or enhance their international skills, awareness, and expertise; (4) collaborative programs, activities, or research involving other institutions of higher education, local educational

agencies, professional associations, businesses, firms or combinations thereof, to promote the development of international skills, awareness, and expertise among current and prospective members of the business community and other professionals; (5) research designed to strengthen and improve the international aspects of business and professional education and to promote integrated curricula; and (6) research designed to promote the international competitiveness of American businesses and firms, including those not currently active in international trade.

The Center is located in Business Administration 428, 594-6023, (FAX) 594-7738.

Real Estate and Land Use Institute (RELUI)

Established in 1983, the Real Estate and Land Use Institute (RELUI) is the first systemwide research-oriented institute of its kind in the 21-campus California State University system. The San Diego regional office of RELUI is located in the College of Business Administration.

RELUI's mission is to promote education and research in real estate and land use. In support of this mission, RELUI seeks to: (1) support, coordinate, and manage systemwide and intercampus research activities; (2) assist in the development, coordination, and administration of statewide continuing education programs; (3) obtain funding sources for education and research activities; (4) promote the general well-being of undergraduate and graduate study within the CSU system; and (5) maintain liaison with government agencies, private industry, and associated organizations with interest in public policy.

RELUI maintains a research and reference center in the College of Business Administration where specialized real estate and land use related materials are available for use by students and faculty.

RELUI also sponsors an internship program for placement of qualified students with local firms to provide a combined working and learning experience. Additional benefits accrue to interns in the form of academic credits and stipends. For more information, call 594-2301.

Administration

Dean: Ann I. Morey
Associate Dean: Gordon M. Thompson
Associate Dean for Faculty Development and Research: Margie K. Kitano
Assistant Dean: Martin J. Block
Director of Development: Thomas C. Gutenbergger

General Information

The mission of the College of Education is broad and multidimensional. The College is concerned primarily with preparing teachers, administrators, resource specialists, and support personnel for various educational settings; providing continuing professional educational opportunities for education personnel; continually assessing the quality and appropriateness of all education activities; contributing to the knowledge base of both educational theory and practice through research and scholarship; providing appropriate public service/technical assistance to individuals and agencies locally, regionally, nationally, and internationally; and contributing to the general intellectual climate of the University community. The College has had an ongoing commitment to programs serving culturally diverse communities and bilingual individuals.

The College of Education is organized into six academic units including the School of Teacher Education and the following departments: Administration, Rehabilitation and Postsecondary Education; Counseling and School Psychology; Educational Technology; Policy Studies in Language and Cross-Cultural Education; and Special Education. The Master of Arts degree in Education is offered in ten academic areas of education. The Master of Science degree is offered in two additional academic areas. A doctoral program in education is offered jointly with Claremont Graduate School. This unique program features a multicultural education emphasis. Approved teaching credential programs are offered for the multiple subject credential and the single subject credential, as well as for a number of specialist and service credentials.

Curricula Offered

Refer to the Courses and Curricula section of this catalog for a complete listing of program requirements and courses offered by departments within the College of Education.

Doctoral Programs

Education
Mathematics and Science Education

Master's Degrees

Counseling (M.S.), Education (M.A.),
Rehabilitation Counseling (M.S.).

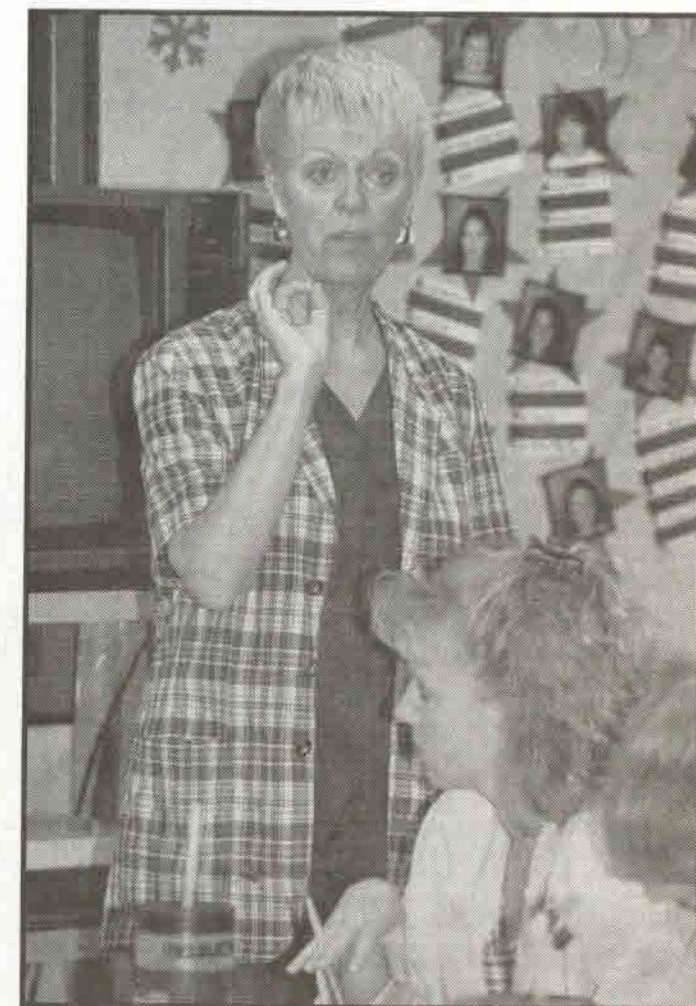
Bachelor's Degree

Vocational Education (B.V.E.)

Minor

Educational Technology

College of Education



Teaching and Service Credentials

Credential Program

1. Multiple Subject
2. Multiple Subject Cross-Cultural Language and Academic Development (CLAD) emphasis
3. Multiple Subject Bilingual Cross-Cultural Language and Academic Development (BCLAD) emphasis: Spanish
4. Single Subject

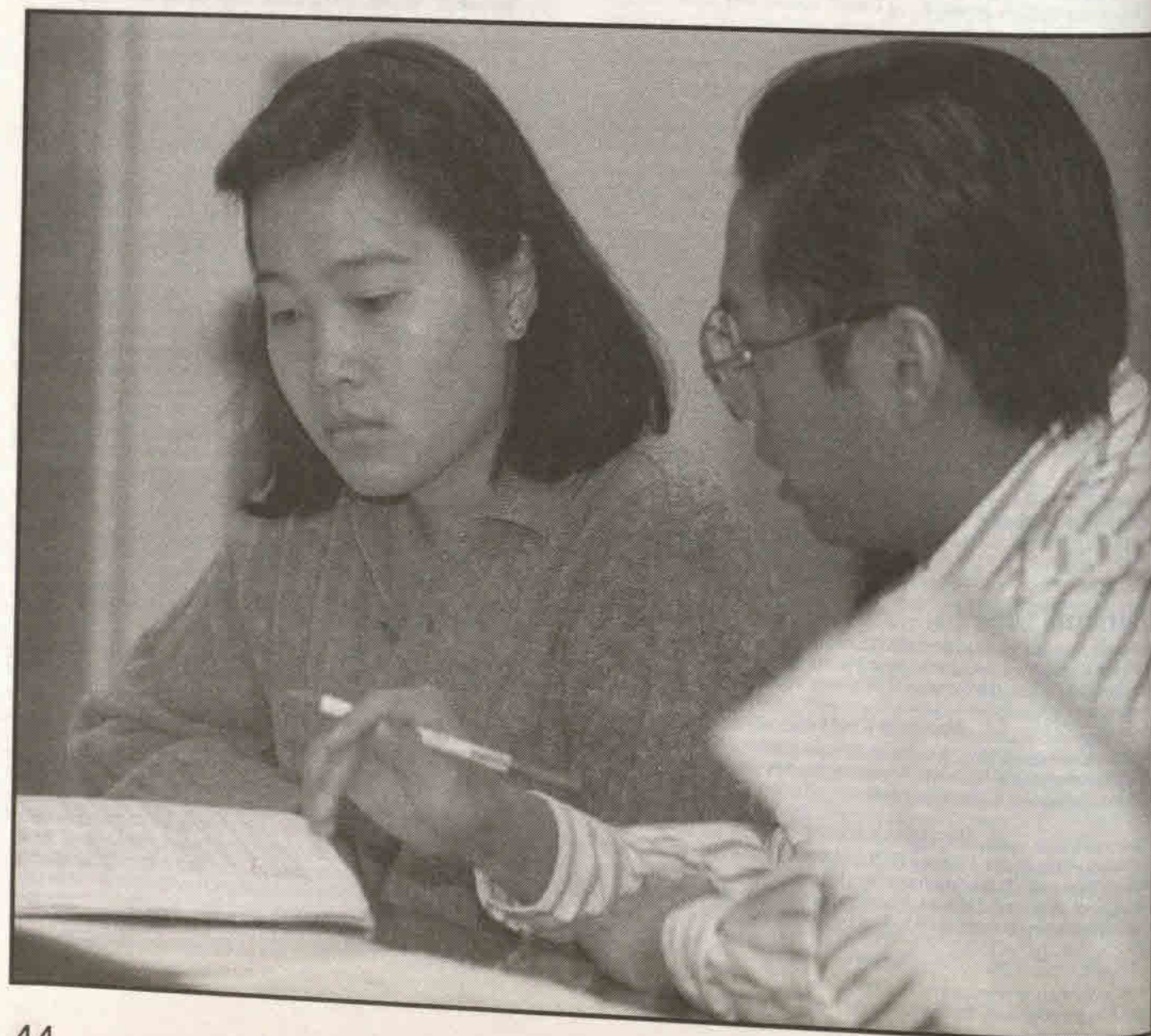
School Service Authorized

Teach in any self-contained classroom, kindergarten through twelfth grade.

Teach in self-contained classrooms and provide Specially Designed Academic Instruction in English (SDAIE) and English Language Development (ELD), kindergarten through twelfth grade.

Teach in self-contained classrooms and in primary language and English, English Language Development (ELD), and Specially Designed Academic Instruction in English (SDAIE).

Teach single subject area in grades kindergarten through twelve.



5. Single Subject Cross-Cultural Language and Academic Development (CLAD) emphasis
 6. Single Subject Bilingual Cross-Cultural Language and Academic Development (BCLAD) emphasis: Spanish
- Teach single subject area in grades K-12 and provide Specially Designed Academic Instruction in English (SDAIE) and English Language Development (ELD).
- Teach single subject area in primary language and English in grades K-12 and provide Specially Designed Academic Instruction in English (SDAIE) and English Language Development (ELD).

Specialist Credentials

Bilingual/Cross-Cultural Reading/Language Arts
Resource Specialist Certificate of Competence
Special Education:
Communication Handicapped (Department of Communicative Disorders)
Gifted
Learning Handicapped
Physically Handicapped
Severely Handicapped

Service Credentials

Administrative Services
Clinical or Rehabilitative Services (Department of Communicative Disorders)
Health - School Nurse (School of Nursing)
Pupil Personnel:
School Counseling
School Psychology
School Social Work (School of Social Work)

Certificate Programs

Bilingual (Spanish) Special Education, Cross-Cultural Language and Academic Development (CLAD), Instructional Software Design, Instructional Technology, Rehabilitation Administration, Resource Specialist, Supported Employment and Transition Specialist, Teaching the Emotionally Disturbed/Behaviorally Disordered, Workforce Education and Lifelong Learning.

Research Centers and Institutes

Counseling and School Psychology Valerie Cook-Morales, Director

The Center for Counseling and School Psychology is a unit within the College of Education designed to provide support for activities such as (1) securing and administering grants and other support for research and development in counseling and school psychology, (2) encouraging cooperation with faculty members from other relevant disciplines such as anthropology, economics, psychology, social work, sociology, and the University Counseling Center, and (3) conducting programs or rendering services designed to promote counseling and school psychology at San Diego State University. The Center is administered by the Department of Counseling and School Psychology; fiscal matters are coordinated through the San Diego State University Foundation.

Center for Economic Education Kathleen Mikitka, Director Joyce Jennings, Adjunct Director

The Center for Economic Education is a unit within the College of Education. The Center is affiliated with Economics America, California Council on Economic Education, and the National Council on

Economic Education and has the mission to provide the following services and functions: (1) in-service training for teachers at both the elementary and secondary levels; (2) curriculum development and consultation with school district personnel; (3) development and distribution of media and materials on economic education; (4) research in economic education; (5) consultation with other university faculty as requested; and (6) workshops, speakers, and materials on economic education for adult constituencies from business, labor, social, and professional organizations. The service area for the Center encompasses both San Diego and Imperial counties.

Center for Instructional Technology Research and Training Allison Rossett, Director

The purpose of the Center is to (1) secure grants and contracts for research and development in instructional technology; (2) conduct workshops, seminars and conferences relating to applications of instructional technology to teaching, training and management; (3) respond to campus and community requests for information and assistance; (4) assist in conducting needs assessments, task analyses, instructional program design and evaluations of instructional products or programs; and (5) disseminate information reflecting model use of instructional technologies. The Center solves problems and realizes opportunities in health, education, military, business and social service settings. The Center functions within the Department of Educational Technology of the College of Education at San Diego State University.

Interwork Institute

Fred R. McFarlane and Ian R. Pumphian, Co-Directors

The Institute efforts focus on promoting the integration of individuals with disabilities into all aspects of school, work, family, and community life through maximum participation by individuals with disabilities. Faculty and staff associated with the Institute are uniquely prepared to promote the meaningful participation and productivity of each member of the community. The Institute's mission is supported through local, state, federal, and international organizations. The Institute's facilities are located at 5850 Hardy Avenue, Suite 112.

Center for Policy Studies in Education

Alberto M. Ochoa, Director

The Center conducts training and research on issues of social equity and bilingual/multicultural policy, and provides technical assistance to districts throughout southern California. The Center houses projects funded by federal, state, and private sources. Current projects include the Parent Institute, and the Social Equity Technical Assistance Center. The Center functions within the department of Policy Studies in Language and Cross-Cultural Education at San Diego State University.

Center for the Study of International Education

Patrick J. Harrison, Director

The Center for the Study of International Education is a unit of the College of Education. It promotes faculty and graduate student research, explores study abroad and exchange possibilities for faculty and students, and disseminates information about international education to interested persons in the San Diego area. It also seeks to complement regular course offerings through sponsorship of lectures, conferences, and the development of bibliographic resources.

The Center seeks to foster not only a network of interested faculty within the College of Education, but also encourages faculty involvement from other colleges on campus as well as from other organizations and universities in the San Diego area.

College of Engineering

Administration

Dean: George T. Craig
Associate Dean: Nihad A. Hussain
Assistant Dean for Student Affairs: Fang-Hui Chou

General Information

The College of Engineering was established as a distinct unit of the University in 1958, although first courses named "Engineering" appeared in the 1922-23 catalog. The 1942-43 catalog was the first to announce the establishment of a "General Engineering" program leading to the Bachelor of Arts degree. The College is now organized into the Departments of Aerospace Engineering and Engineering Mechanics, Civil and Environmental Engineering, Electrical and Computer Engineering, and Mechanical Engineering.

At the undergraduate level, the College of Engineering prescribes certain patterns of its courses, combined with those of other academic divisions of the University, leading to the Bachelor of Science degree in the four specific major fields of engineering. At the graduate level, the College offers the Master of Science degree in these same fields, and offers a doctoral degree in Engineering Sciences/Applied Mechanics with the University of California, San Diego.

The objective of the engineering program at San Diego State is to provide the intellectual and physical environment best calculated to encourage students to develop their capacities toward a successful career in the profession of engineering, knowing the need for engineers to maintain a professional proficiency in a rapidly changing technology and advancing state of the art. Moreover, the effective development and application of technology depends on responsible judgments by professionals cognizant of the total needs of society and how technology affects people. Thus, the engineering graduate should have the academic background necessary for personal and professional growth. These goals determine the content of the undergraduate engineering program.

Because the engineer's work is predominantly intellectual and varied, and not of a routine mental or physical character, this program places emphasis on the mastery of a strong core of subject matter in the physical sciences, mathematics, and the engineering sciences of broad applicability. Woven throughout the pattern is a continuing study of the sociohumanistic facets of our civilization, because the engineering graduates must expect to find their best expression as leaders, conscious of the social and economic implications of their decisions.

Although the profession of engineering presents in practice a variety of specialties, undergraduate students initially focus their attention on a pattern of coursework emphasizing engineering fundamentals. Students then are able to utilize this knowledge of fundamentals in developing special knowledge in their areas of specific interest.

Accreditation and Academic Association

The College of Engineering is a member of the American Society for Engineering Education, and all undergraduate engineering programs are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

Registration of Engineers

Registration of engineers is required for many fields of practice. The engineering graduate cannot acquire registration as an engineer immediately upon graduation; however, early application for the required state examination is advisable. Graduation from an accredited program such as San Diego State's facilitates registration as a professional engineer.

Curricula Offered

Refer to the Courses and Curricula section of this catalog for a complete listing of program requirements and courses offered by departments within the College of Engineering.

Doctoral Program

Engineering Sciences/Applied Mechanics

Master's Degrees

Aerospace Engineering (M.S.), Civil Engineering (M.S.), Electrical Engineering (M.S.), Mechanical Engineering (M.S.).

Bachelor's Degrees

Aerospace Engineering (B.S.), Civil Engineering (B.S.), Electrical Engineering (B.S.), Mechanical Engineering (B.S.).

Minor

Engineering

Research Centers and Institutes

Concrete Research Institute

M. Ziad Bayasi, Director

The Concrete Research Institute supports educational needs in civil engineering curriculum and concrete research performed for sponsors from industry and governments. The Institute encompasses a wide range of topics. The main emphasis is currently on concrete materials and structures. Civil and environmental engineering faculty members are involved with finding optimum design solutions in bridges, seismic resistant structures, residential buildings, and retaining walls.

Energy Engineering Institute

Halil M. Güven, Director

The Energy Engineering Institute has supported educational and research activities in energy related areas since 1985. Undergraduate and graduate students and faculty from the mechanical engineering and electrical and computer engineering departments are involved in obtaining solutions to problems presented by industrial sponsors. Institute research projects cover a wide range of areas from optimizing energy resources to international energy studies.

Computer Integrated Manufacturing (CIM) Center

James S. Burns, Director

Evolved from the Computer Aided Manufacturing Center established in 1987, the CIM Center is now involved with the entire range of activities in the manufacturing enterprise. Working with the College of Business Administration, mechanical engineering faculty and students apply CIM concepts to do research on projects ranging from shop floor operations through engineering design to plant operations management.

College of Health and Human Services

Administration

Interim Dean: Dolores A. Wozniak
Associate Dean: Olita D. Harris
Assistant Dean for Student Affairs: Li-Rong Lilly Cheng

General Information

The College of Health and Human Services offers professional education in the health and human service disciplines. The College consists of the following group of professional schools, and departments: Department of Communicative Disorders, School of Nursing, School of Social Work, the Gerontology program, and the Graduate School of Public Health.

The College of Health and Human Services faculty, through advising, teaching, and supervising, offers students a balanced education of academic study, field placement, clinical experiences, and research opportunities. Thus, faculty and students share an understanding of the relationship between California's diverse populations and life styles. The common goal of each of the College's professional programs is to assist students in developing competence in professional practice and research methods that develop their expertise to gather information, plan, and evaluate professional actions. This commitment to students produces alumni who will continue to work effectively with our professional schools and departments to preserve and promote the well-being of individuals, groups, and communities.

Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, Master of Public Health, Master of Social Work, and Ph.D. in Public Health degrees are conferred. In addition, students may receive national accreditation, state credential or state licensure, and national or state professional certification depending upon the program and the legal requirements and obligations for practicing the profession. All programs also provide continuing education for professionals already in the field.

Curricula Offered

Refer to the Courses and Curricula section of this catalog for a complete listing of program requirements and courses offered by departments within the College of Health and Human Services.

Doctoral Program

Public Health

Master's Degrees

Communicative Disorders (M.A.), Nursing (M.S.),
Public Health (M.S., M.P.H.), Social Work (M.S.W.).

Bachelor's Degrees

Health Science (B.S.), Nursing (B.S.), Social Work (B.A.),
Communicative Disorders (B.A.), Gerontology (B.A.).

Minors

Communicative Disorders, Gerontology,
Health Science, Social Work.

Certificate Programs

Early Intervention Specialist, Gerontology, Human Services Paraprofessional, Preventive Medicine Residency, Professional Services Multicultural/Bicultural.

Credential Programs

Clinical or Rehabilitative Services, Pupil Personnel Services Credential (School Social Work), Special Education Specialist for the Communication Handicapped.

Research Centers and Institutes

University Center on Aging

E. Percil Stanford, Director

The University Center on Aging offers the B.A. in Gerontology. The Center is active in the area of aging, involved with such activities as supporting interdisciplinary educational and curriculum efforts; undertaking research, demonstration and evaluation activities; providing technical assistance and agency consultation for the community; coordinating workshops and seminars; and providing opportunities for student involvement in aging activities. The Center is also responsible for the coordination of a certificate program in conjunction with the College of Extended Studies and administers an undergraduate minor in Gerontology. The Center serves as a central point for the development and dissemination of data related to diversity and aging and long-term care.

Center for Behavioral and Community Health Studies

John P. Elder, Director

Alan J. Litrownik, Gregory Talavera, Joni Mayer,
and Terry Conway, Senior Faculty Investigators

The Center for Behavioral and Community Health Studies is housed at 6363 Alvarado Court. The Center, formerly known as The Center for Behavioral Medicine, was established in 1982 for the purpose of promoting research and academic programs relevant to the applications of behavioral science principles to medicine and health care. Administratively, the Center has three co-directors who report to the deans of the College of Sciences and the College of Health and Human Services. The interdisciplinary center encourages participation from all of the University colleges and departments. Currently, active investigators come from the Departments of Physical Education, Psychology, and the Graduate School of Public Health. Current Center projects involve collaboration between scientists and physicians from a variety of specialties as well as a variety of other institutions, including Scripps Clinic and Research Foundation, the University of California, San Diego Medical Center, and the Children's Hospital and Health Center. Funding for the Center comes from federal and private foundation grants including several National Institutes of Health agencies. Current sponsors include the American Heart Association, National Cancer Institute, the National Heart, Lung and Blood Institute, the State of California Department of Health Services, the University of California Tobacco Related Disease Research Program, the Centers for Disease Control, and the National Science Foundation.

The Center provides important research experience to students who intend to pursue related careers and offers opportunities for project staff and graduate students to participate in community interventions.

Communications Clinic for Speech, Language, and Hearing Disorders

Kathee Christensen, Charlotte Lopes,
Diane Williams, Co-Directors

Administered by the Department of Communicative Disorders, the Clinic is staffed by graduate students and supervised by department faculty. It provides assessment and remediation services for SDSU students, staff, faculty, and the community. Comprehensive diagnostic and treatment programs are available for children and adults, who may present such communicative difficulties as delayed speech/language development, voice, fluency or articulation disorders, aphasia, cleft palate, cerebral palsy, loss of communication function, hearing loss and deafness. Also provided are services for bilingual/multicultural clients and speakers of English as a second language. Audiology services provided by the Clinic include hearing assessment, hearing aid evaluation and selection, assistive listening device evaluations, earmolds, ear protectors, hearing conservation and speech reading/aural rehabilitation therapy. The clinic is located at 6330 Alvarado Court, Suite 100, (619) 594-6477.

Interdisciplinary Center for Health and Human Services

Charlotte Lopes, Clinical Director

Administered by the Department of Communicative Disorders, the Center is a multidisciplinary training, research, and service facility which promotes educational and research opportunities for SDSU faculty and students in health and human services fields. The Center's *Interdisciplinary Assessment Program* teaches students the skills of interdisciplinary collaboration as they assess the behavioral, cognitive, communicative, educational and physical/mental health problems experienced by clients of all ages. The *Assistive Device Assessment Program* provides language, cognitive, and technical assessments related to augmentative/assistive devices and systems for individuals who have communication disabilities. *Project BEST* (Better Elder Service Teams) coordinates free Senior Health Fairs, which include screenings for blood pressure readings, vision and hearing checks, glucose and hemoglobin tests, drug interaction analysis, health education and referral assistance.

International Institute for Human Resources Development in Health and Human Services

Tarek Shuman, Director

Administered through the Dean's Office, the purpose of this International Institute is to respond to the urgent global need for human resources development, particularly in the fields of health and human services. Specific activities include the development of education and training programs; promoting relevant research and model demonstration programs and projects; encouraging technical cooperation with developing countries; promoting exchange of information and experience at the international level; and engaging in the convening of conferences. The Institute will also provide a comprehensive, centralized source of data and information on human resource development, linking it to internationally recognized networks, and serving as a repository and a clearinghouse for information in this field.

SDSU Institute for Nursing Research

Catherine E. Loveridge, Director

Administered through the School of Nursing, the purpose of the Institute is to promote collaboration in the conduct, dissemination, and utilization of nursing research which will contribute to the quality of patient care and service. The Institute provides a forum for research interests and activities, and also fosters collaborative research efforts among Institute nurse clinicians and SDSU Nursing faculty. This includes identifying research priorities for individual and multi-site research projects, and providing consultation for design, method, analysis, computer services, instrumentation, and manuscript preparation. The Institute also facilitates grant application and administration for funded research, as well as the dissemination of research findings.

Institute for Public Health

Winnie Willis, Director

Administered through the Graduate School of Public Health, the mission of the Institute is to make public health expertise, resources and information available to local public health practitioners as well as to the business and industrial community of San Diego and neighboring areas, including Mexico. Resident expertise includes biostatistics, environmental health, epidemiology, health services administration, health promotion, industrial hygiene, maternal and child health, occupational health and toxicology. Specific activities include professional advising, placement of student interns, development of new research, and expansion of ongoing research regarding current public health issues relevant to the San Diego community. The Institute also provides continuing education programs, offering practical training to public health professionals already practicing in the field.

Center on Substance Abuse

Anita S. Harbert, Director

Annette R. Smith, Coordinator

Administered through the School of Social Work, the Center was established in 1985, with a primary mission of facilitating the development of knowledge and skills for the prevention and treatment of alcohol and drug problems. Goals include developing and supporting projects in substance abuse research, curriculum, and community service. The Center serves as an administrative umbrella for several projects, including Student to Student, providing campus-wide substance abuse prevention, the Student to Student Dissemination Project, providing technical assistance and support to the San Diego Community Colleges, and the Central District Driving Under the Influence Program, providing education and counseling for court-ordered offenders in the central judicial district of San Diego County. Other projects have included the College Life Alcohol Prevention Project, providing awareness of issues related to family alcoholism, the Child Welfare Substance Abuse Training Project, the Neighborhood House Head Start Substance Abuse Training Project, and the production of a substance abuse training video for child welfare workers. In addition, the Center has been involved in the training of approximately 200 community professionals in substance abuse intervention, and functions in a leadership role with the San Diego Intercollegiate Consortium for Alcohol and Drug Abuse Prevention. The Center office is located at 9245 Sky Park Court, Suite 101, (619) 467-6828.

College of Professional Studies and Fine Arts

Administration

Dean: Joyce M. Gattas
Associate Dean: Hayes L. Anderson
Assistant Dean for Student Affairs: Carole A. Robasciotti

General Information

The College of Professional Studies and Fine Arts is committed to the pursuit of excellence in academic and artistic endeavors geared to enhancing the human enterprise. Composed of 11 departments and schools, the college is recognized for its excellent academic programs that create a bridge between university and community life by preparing students for professional careers in a wide spectrum of cultural, educational, social, economic, and technical fields.

Bachelor's degrees, and master's degrees in most disciplines, are awarded in art, design and art history, drama, child and family development, journalism, speech communication, telecommunications and film, music and dance, physical education and foods and nutrition, public administration and urban studies, and recreation, parks and tourism. The College also houses three ROTC programs which lead to commissioned officer status upon graduation. The International Center for Communications, the Institute of Public and Urban Affairs, the Production Center for Documentary and Drama, the Institute for International Security and Conflict Resolution, and the Institute for Leisure Behavior are the research centers that offer the campus and San Diego communities unique instructional opportunities and research.

The College of Professional Studies and Fine Arts is at the forefront of meeting and integrating the needs of community, corporate, government and educational goals. The College is uniquely positioned because of its dedication to and appreciation of traditional and non-traditional forms of scholarship and research reflecting a demographically changing society through its curriculum, research and outreach activities. Interdisciplinary collaboration is the hallmark of the College's academic programs, research and creative activity that enrich the quality of life, provoke the status quo, enhance understanding of cultural diversity and are at the cutting edge of technology.

Curricula Offered

Refer to the courses and Curricula section of this catalog for a complete listing of program requirements and courses offered by departments within the College of Professional Studies and Fine Arts.

Master's Degrees

Art (M.A., M.F.A.), Child Development (M.S.), City Planning (M.C.P.), Drama (M.A., M.F.A.), Exercise Physiology (M.S.), Mass Communication (M.S.), Music (M.A., M.M.), Nutritional Sciences (M.S.), Physical Education (M.A.), Public Administration (M.P.A.), Speech Communication (M.A.), Telecommunications (M.A.).

Bachelor's Degrees

Art (B.A.), Child Development (B.S.), Criminal Administration (B.S.), Dance (B.A.), Drama (B.A.), Foods and Nutrition (B.S.), Home Economics (B.A.), Journalism (B.A.), Music (B.A., B.M.), Physical Education (B.S.), Public Administration (B.A.), Telecommunications (B.A.), Television-Film Production (B.S.), Recreation Administration (B.A.), Speech Communication (B.A.), Urban Studies (B.A.)

Minors

Aerospace Studies, Art, Art History, Child Development, Dance, Drama, Journalism, Military Science, Music, Naval Science, Physical Education, Public Administration, Recreation, Speech Communication, Telecommunications and Film.

Military Curricula

Aerospace Studies, Military Science, Naval Science

Certificate Program

Family Life Education

Research Centers and Institutes

International Center for Communications

John M. Eger, Director

The International Center for Communications draws upon the resources of the University, the community and the communications industry to provide the nation's first international focal point in the Pacific in which academic study, innovative research and practical experience among the private and public sectors are joined to help solve critical issues confronting the Pacific region. The Center serves two main purposes: 1) to initiate dialogues leading to new understanding among the diverse cultural and community interests of the region; and 2) to link communications and community in the new relationships essential to fulfilling the promise of the Pacific world.

The goals of the International Center are to establish an institutional approach to learning, problem-solving and practical work focusing on the critical issues of communication and information; to create a new and dynamic partnership in San Diego between business and industry, government and academia, redefining and building a sense of community; and to develop a forum and agenda for research, discussion and collaboration with other organizations in the Pacific leading toward the establishment of a permanent "Pacific Dialogue on the Media."

Institute for International Security and Conflict Resolution

Alan R. Sweedler and Dipak Gupta, Co-Directors

The SDSU Institute for International Security and Conflict Resolution (IISCOR) encourages and facilitates teaching and research in the multidisciplinary area of international security and conflict resolution. Specifically, topics such as superpower confrontation, nuclear armaments, international conflict, sociopolitical violence, and global environmental issues as they relate to security are covered.

The Institute is a joint effort of the Colleges of Sciences, Arts and Letters, and Professional Studies and Fine Arts. IISCOR is administered by two co-directors, advised by an executive committee consisting of faculty members representing the different disciplines that provide input into the study of international security and conflict resolution.

The Institute promotes teaching and research by organizing public forums, faculty and student seminars, developing appropriate curricula for undergraduate and graduate instruction and facilitating

research and scholarly activities. SDSU plans to offer (subject to systemwide approval), through IISCOR, a multidisciplinary Bachelor of Arts degree in International Security and Conflict Resolution. Students and faculty can obtain more information by calling the IISCOR office at 594-4352.

Institute for Leisure Behavior

Gene G. Lamke, Director

The Institute for Leisure Behavior is the research and community service unit within the Department of Recreation, Parks and Tourism at San Diego State University. It is primarily concerned with conducting leisure related research, promoting professional development, disseminating specialized publications, and organizing conferences, seminars, lectures and workshops.

The Institute is governed by a Board of Directors which, in turn, is advised by a group of thirteen individuals from park and recreation and related fields. The Advisory Council has been instrumental in providing valuable information to the Board concerning the needs and direction of the leisure services field.

The Institute administers a variety of service programs within San Diego County. Camp Able, an aquatic-based camp for disabled children and adults, operates ten weeks during the summer at Silver Strand State Beach. The Spring Valley Park and Recreation District within the San Miguel County service area (San Diego County) contracts for recreation services from the Institute for all its residents. Additionally, the Institute conducts research for local park and recreation entities as well as the California Department of Parks and Recreation and the United States Forest Service.

The Institute continues to publish monographs focusing on important issues relative to leisure services delivery. These are available to the public, as well as park and recreation practitioners. Research projects under the direction of the Institute focus on local, state, national, and international problems related to leisure and park/recreation services.

Professional Studies and Fine Arts

Production Center for Documentary and Drama

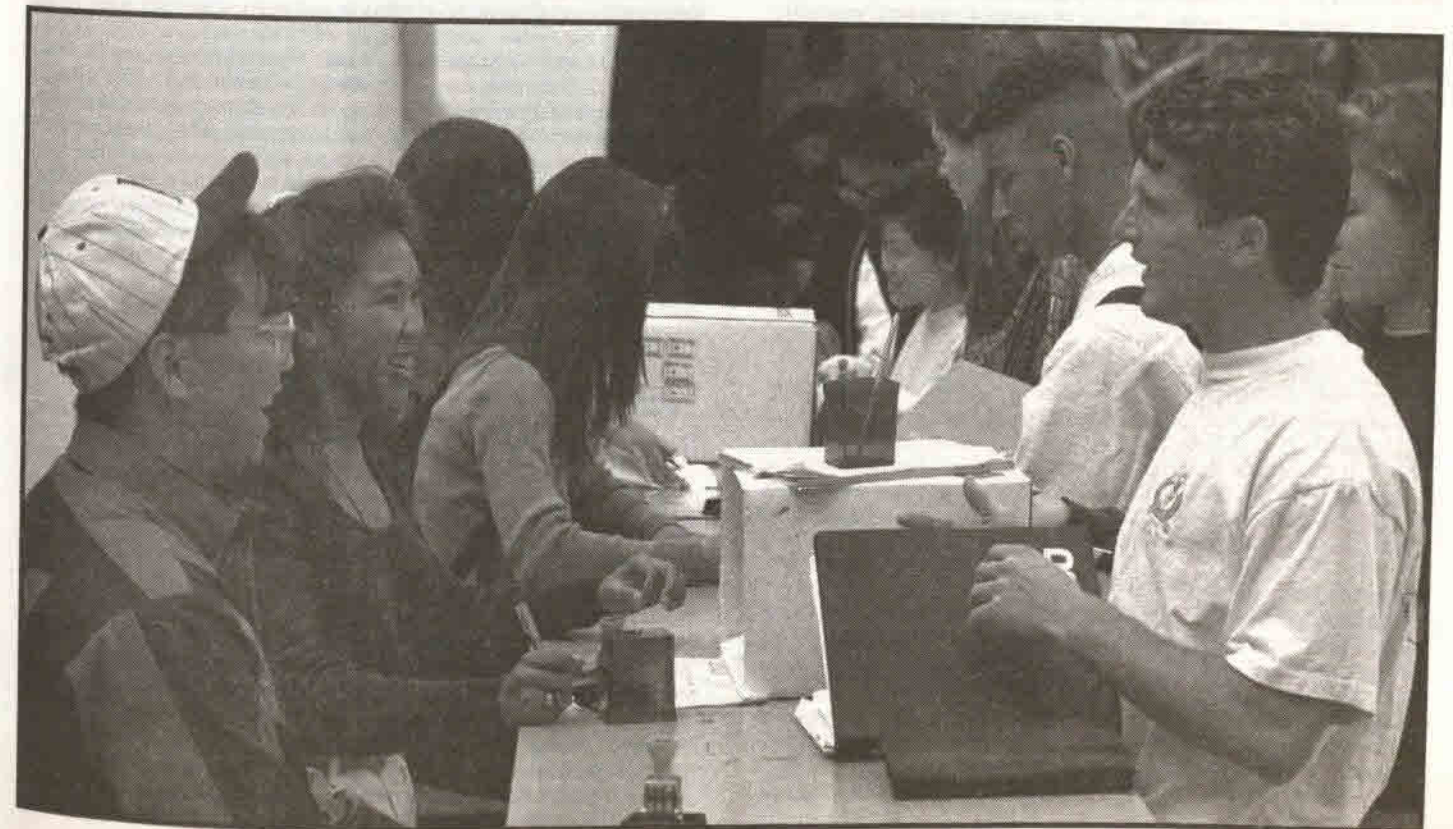
Jack Ofield, Director

The Production Center for Documentary and Drama was established to sponsor and create professional films and videotapes of exceptional merit, high artistic and technical standards, documentary accuracy and creative originality. Production Center projects are an integral part of the education of senior and graduate students in the telecommunications and film disciplines (within the School of Communication), who work in tandem with industry professionals to gain practical experience in film and videotape production on location and in the studio. The Production Center, located in PSFA 325, encourages graduate students and alumni to develop and produce important personal projects that are an expression of their artistic and technical growth. The Center serves local, national and international non-profit entities, such as museums, libraries, performing and visual arts groups, and public service, research, philanthropic and government agencies in the development of audio-visual programs and assists other SDSU departments to document important projects and programs. Production Center projects are funded from grants and contracts with industry, government, philanthropy and education and administered by the SDSU Foundation.

Institute of Public and Urban Affairs

Louis M. Rea, Director

The Institute of Public and Urban Affairs is located in the School of Public Administration and Urban Studies. The Institute was established to conduct research in community and governmental affairs and to sponsor conferences, colloquia and symposia related to issues in public administration and affairs including urban planning, management and criminal justice administration. The Institute also publishes occasional working papers and research monographs. Selected students and faculty of San Diego State University staff the Institute. An integral part of the Institute is the Public Administration Center which contains a specialized and growing collection of research materials emphasizing issues in public affairs particular to San Diego and California.



College of Sciences

Administration

Dean: Donald R. Short, Jr.
Associate Dean: Rebecca B. Bryson
Associate Dean for Special Programs: Paul J. Paolini
Associate Dean for External Relations: Gordon L. Shackelford
Assistant Dean for Student Affairs: Catherine J. Atkins-Kaplan
Assistant Dean for Underrepresented Student Programs: Lawrence J. Alfred
Assistant Dean for Faculty Development: Robert S. Pozos

General Information

The College of Sciences, composed of seven departments and various subprograms, offers bachelor's, master's, and doctoral degrees, and curricula for preprofessional students in medicine, veterinary medicine, and dentistry. The science curriculum is enhanced by research centers which provide field experience as well as special seminars with guest speakers. The off-campus sites include the Mt. Laguna Observatory, and about 5,000 acres in three separate biological sciences research stations. The majority of tenured Sciences faculty have active research programs which offer student involvement.

Curricula Offered

Refer to the Courses and Curricula section of this catalog for a complete listing of program requirements and courses offered by departments within the College of Sciences.

Doctoral Programs

Biology, Chemistry, Clinical Psychology, Ecology, Mathematics and Science Education

Master's Degrees

Applied Mathematics (M.S.), Astronomy (M.S.), Biology (M.A., M.S.), Chemistry (M.A., M.S.), Computer Science (M.S.), Geological Sciences (M.S.), Mathematics (M.A.), Microbiology (M.S.), Physics (M.A., M.S.), Psychology (M.A., M.S.), Radiological Health Physics (M.S.), Statistics (M.S.).

Bachelor's Degrees

Astronomy (B.S.), Biology (B.A., B.S.), Chemical Physics (B.S.), Chemistry (B.A., B.S.), Computer Science (B.S.), Environmental Health (B.S.), Geological Sciences (B.S.), Mathematics (B.A., B.S.), Microbiology (B.A., B.S.), Physical Science (B.S.), Physics (B.A., B.S.), Psychology (B.A.), Statistics (B.S.*).

Minors

Astronomy, Biology, Chemistry, Computer Science, Energy Studies, Geological Sciences, History of Science and Technology, Mathematics, Oceanography, Physics, Psychology.

Certificate Programs

Introductory Mathematics, Recombinant DNA Technology, Single Subject Mathematics.

Other Curricula

Allied Health, Medical Technology and Public Health, Pre dental, Pre medical, Pre veterinary.

* Subject to systemwide approval.

Research Centers and Institutes

The Edwin C. Allison Center for the Study of Paleontological and Geological Sciences

The Allison Center has supported research in paleontology, geology and related sciences since 1972. The Center maintains a research library containing journals, reprints, textbooks, maps, and copies of master's theses and senior theses completed in the Geological Sciences. The library is open to faculty and students. In addition, the Center houses a collection of fossil and recent vertebrates, invertebrates, and plants. Research space is available for students, faculty, and visiting scholars. Small grants, other funds, and equipment are available to students and faculty for research projects. The Center also publishes reports of various types containing geological information related to the southern California and northern Baja regions.

Center for Behavioral and Community Health Studies Alan J. Litrownik, Gregory Talavera, Joni Mayer, and Terry Conway, Senior Faculty Investigators

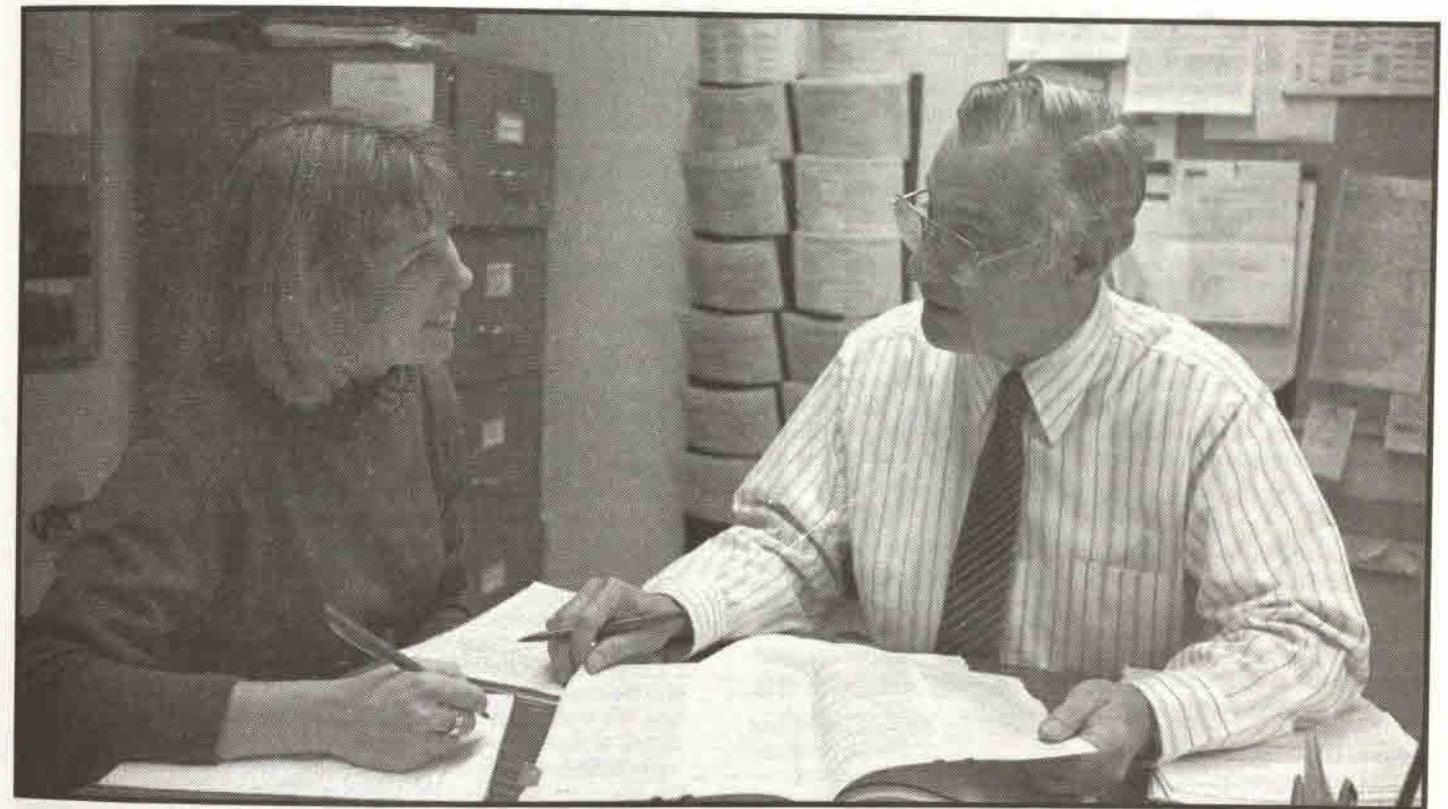
The Center for Behavioral and Community Health Studies is housed at 6363 Alvarado Court. The Center, formerly known as The Center for Behavioral Medicine, was established in 1982 for the purpose of promoting research and academic programs relevant to the applications of behavioral science principles to medicine and health care. Administratively, the Center has three co-directors who report to the deans of the College of Sciences and the College of Health and Human Services. The interdisciplinary center encourages participation from all of the University colleges and departments. Currently, active investigators come from the Departments of Physical Education, Psychology, and the Graduate School of Public Health. Current Center projects involve collaboration between scientists and physicians from a variety of specialties as well as a variety of other institutions, including Scripps Clinic and Research Foundation, the University of California, San Diego Medical Center, and the Children's Hospital and Health Center. Funding for the Center comes from federal and private foundation grants including several National Institutes of Health agencies. Current sponsors include the American Heart Association, National Cancer Institute, the National Heart, Lung and Blood Institute, the State of California Department of Health Services, the University of California Tobacco Related Disease Research Program, the Centers for Disease Control, and the National Science Foundation.

The Center has a commitment to provide important research experience to students who intend to pursue related careers and offers opportunities for project staff and graduate students involved in several training programs to participate in community interventions.

Biological Field Stations Paul H. Zedler, Director

SDSU maintains three natural reserves administered by the College of Sciences that are available for research and educational activities in ecology, field biology, soils science, hydrology, geology, geography, and other field sciences.

The Santa Margarita Ecological Reserve, about 4000 acres in area, is located on the San Diego-Riverside County line near Temecula, and includes the spectacular gorge of the Santa Margarita River. The recently established Philip C. Miller Field Station, located on the north rim of the gorge, has laboratory and dormitory facilities, a weather station, and experimental eucalyptus plantings. The site lies in rugged hills and is a mosaic of riparian vegetation, oak woodlands, grasslands, coastal sage scrub, chamise chaparral, and mixed chaparral. Elevations range from 500 to 2300 feet. Abundant wildlife typical of chaparral and woodland areas is found on the reserve, including



mule deer and mountain lions. The Santa Margarita River, a perennial stream, offers opportunities for study of stream and riparian systems.

The Sky Oaks Biological Research Station, 4400 acres in an area at an elevation of 4000 feet, is located near Warner Springs in northern San Diego County adjacent to the Anza-Borrego Desert State Park and the Cleveland National Forest. Dormitory and basic laboratory facilities are located on this site. A diversity of community types is found on the station including several types of chaparral, extensive oak woodlands, grasslands, riparian communities, and pine forest. This station has been the site of several research projects on the effect of fire on natural vegetation, and stands of chaparral of a variety of post-fire ages are available for study. Currently, several major projects studying aspects of global climate change are underway.

The Fortuna Mountain Ecological Reserve consists of 500 acres within the city of San Diego a few miles from the campus. The reserve is covered by a mosaic of chaparral, coastal sage scrub, and grassland, and is adjacent to riparian areas along the San Diego River. This property also lies within Mission Trails Regional Park, most of which is now administered as an area of natural landscape.

Persons interested in conducting research at one of the ecological reserves or using them for instructional purposes should contact the director through the campus Biological Field Stations Office at 594-2896 or inquire at the Biology Department, 594-5504.

Coastal and Marine Institute

Clive E. Dorman and Susan L. Williams, Co-Directors

The Coastal and Marine Institute provides a focus for oceanography and marine studies at SDSU. The Institute assists departments within the University in the development of instructional, research, and public service aspects of coastal and ocean-oriented programs and provides special supporting services including advising students, assistance to faculty and students in research, preparation of manuscripts, operation of the SDSU Marine Laboratories and boats at Mission Bay, and liaison with other institutions and the community. The Institute is operated as a special unit of the College of Sciences and is

administered by a director and an advisory council committee consisting of faculty members elected from participating departments. Additional information about marine studies is available from the Coastal and Marine Institute office or from the office of the Dean of the College of Sciences.

Center for Computer Simulation William Root, Director

The Center for Computer Simulation serves faculty and students throughout the University by designing and implementing computer simulations in support of faculty research and teaching. The Center also autonomously pursues research opportunities involving the creation of complex simulations, particularly those addressing challenges in the public sector. The diversity of fields in which computer simulation now plays a role, allow the Center to provide research opportunities for undergraduate and graduate students in a wide variety of academic majors.

The Center supports an extensive collection of simulation software under site license, and maintains cooperative relationship with prominent public and private sector simulation software developers to ensure that the Center's capabilities keep pace with the state-of-the-art. The Center provides educational/training materials for students and faculty seeking to familiarize themselves with specific simulation tools, sponsors lectures and seminars on simulation-related topics, and disseminates announcements of activities in the local and national simulation communities.

The Center is comprised of an interdisciplinary group of faculty who have technical expertise in areas specifically related to computer simulation development, or who have research interests involving significant use of simulation. Currently the Center includes members from the faculties of Applied Mathematics, Computer Science, Criminal Justice Administration, Engineering, Public Health, and Statistics. The Center is administered by a director appointed by the Dean of the College of Sciences, and resides in facilities provided by the Computer Science Division of the Department of Mathematical Sciences.

Center for Energy Studies

Alan R. Sweedler, Director

The San Diego State University Center for Energy Studies (CES) facilitates, promotes and supports research and academic programs relating to energy, with particular emphasis on energy matters of concern to the San Diego and local southwest region including the international border with Mexico. The Center encourages interdisciplinary research and instructional programs in the broad areas of energy modeling, technology assessment of energy systems, local energy policy planning and data collection relating to energy usage in the San Diego region. SDSU offers through the Center an interdisciplinary minor in energy studies. Completion of the minor will give the student a broad understanding of the technical, economic, social, and political aspects of energy issues. For more information call the Center at 594-6240 or 594-6155. The Center works closely with local and state agencies concerned with energy policy and planning, and serves as a community resource in matters concerning local energy issues, and the impact of energy use of the environment.

Institute for International Security and Conflict Resolution

Alan R. Sweedler and Dipak Gupta, Co-Directors

The SDSU Institute for International Security and Conflict Resolution (IISCOR) encourages and facilitates teaching and research in the multidisciplinary area of international security and conflict resolution. Specifically, topics such as nuclear armaments, international and intranational conflict, sociopolitical violence, and global environmental issues as they relate to security are covered.

The Institute is a joint effort of the Colleges of Sciences, Arts and Letters, and Professional Studies and Fine Arts. IISCOR is administered by two co-directors, advised by an executive committee consisting of faculty members representing the different disciplines that provide input into the study of international security and conflict resolution.

The Institute promotes teaching and research by organizing public forums, faculty and student seminars, developing appropriate curricula for undergraduate and graduate instruction and facilitating research and scholarly activities. SDSU plans to offer (subject to systemwide approval), through IISCOR, a multidisciplinary Bachelor of Arts degree in International Security and Conflict Resolution. Students and faculty can obtain more information by calling the IISCOR office at 594-6240.

Center for Research in Mathematics and Science Education

Sandra P. Marshall, Director

The Center for Research in Mathematics and Science Education (CRMSE) is an interdisciplinary consortium of faculty interested in research on substantive questions related to the learning and teaching of science and mathematics. The Center currently has members from the faculties of Mathematical Sciences, Natural Science, Psychology, Teacher Education, and Physics. It is administered by a director appointed by the dean of the College of Sciences and an associate director appointed by the dean of the College of Education. Through its activities, CRMSE initiates, encourages, and supports the scholarly pursuit of important theoretical and applied problems in mathematics and science education. CRMSE supports faculty in their current research projects and in the preparation of manuscripts for publication and grant proposals for continued research. The Center also provides information and guidance to students intending to pursue graduate degrees or careers in mathematics or science education. CRMSE works closely with local, state, and national groups concerned with these issues. The Center is located at 6475 Alvarado Road, Suite 206; telephone 594-5090.

Microchemical Core Facility

Christopher C. Glembotski and Judith W. Zyskind, Co-Directors

The Microchemical Core Facility (MCF) is a component of the California State University Program for Education and Research in Biotechnology (CSUPERB). The MCF is a full-service, state-of-the-art

facility that provides protein/DNA synthesis and sequencing, amino acid analysis, and protein/DNA purification services for cell and molecular biologists associated with any of the 20 CSU campuses. In addition, the MCF provides for CSU faculty access to the most recent advances in computer-assisted analyses of molecular structure. Located in the Biology Department at SDSU, the MCF provides state-of-the-art molecular analyses and characterization to CSU scientists for the lowest possible cost, as well as fostering the training of university faculty at all levels in the most recent techniques available in the molecular life sciences. Funding for the establishment and maintenance of the SDSU MCF is derived from the National Science Foundation with matching funds provided by the State of California.

Molecular Biology Institute

Sanford I. Bernstein, Director

The Molecular Biology Institute was established to serve interested departments of the biological and physical sciences in the coordination, support and enhancement of research and instruction in the molecular biological sciences. Interests and activities of the MBI encompass all approaches which aim to explain biology at the molecular level. The MBI sponsors a weekly seminar series that facilitates faculty and student interaction with scientists from other institutions. Currently, full members of the Institute are drawn from the Departments of Biology and Chemistry and participate in the respective Ph.D. programs. Associate members are drawn from a variety of disciplines that are cognate with the molecular biological sciences. The Institute is also constituted as the University unit authorized to administer the master's degree program with an emphasis in molecular biology. The research programs of the MBI members are supported by a variety of agencies including the National Institutes of Health, the National Science Foundation, NASA, the American Heart Association, the American Diabetes Association, the Muscular Dystrophy Association, the Department of Energy, the US Department of Agriculture, and the California Metabolic Research Foundation. Additional information is available from the MBI office; telephone 594-7429.

Interdisciplinary Research Center for Scientific Modeling and Computation

José E. Castillo, Director

Peter Salamon, Associate Director

The Interdisciplinary Research Center for Scientific Modeling and Computation (IRC) promotes and supports an excellent environment for scientific research at SDSU. The Center facilitates the interaction between applied mathematics and other disciplines by providing the necessary infrastructure for productive research efforts.

The Center's primary areas of research are numerical methods, modeling, and simulation. Projects combine insights from theoretical mathematics and other sciences with expertise in applied as well as computational mathematics.

The Center sponsors interdisciplinary seminars, colloquia, and workshops which draw scientists from many fields. Visiting scientists come for extended periods from industries and from other universities, attracted by the conviction that science and engineering problems benefit greatly from interdisciplinary efforts.

The Center's activities significantly enhance the ties between applied and computational mathematics at SDSU by involving faculty and students in projects closely connected to real applications. Interested students and faculty may obtain more information by calling the IRC office at 594-7205.

Survey Research

Oscar Kaplan, Director

The Center for Survey Research was established to encourage nonprofit research in the sample survey field. The Center is prepared to undertake surveys requested by government or nongovernment organizations, and to do fieldwork on a local, state or national basis. Faculty members who wish to submit applications for off-campus support in survey research in the name of the Center may do so, upon approval of the project by the Center's advisory committee. The Center is administered by a director.

Administration

Dean: David Ballesteros

Associate Dean: Pamela M. Balch

Assistant Dean: Cynthia D. Flores

Director of Library Services: Jon Noland

Director of Academic Services: Kathleen Russum

Director of Financial and Business Services: Irma Martinez

Development Officer: John Renison

Faculty

Emeritus: Baldwin, Erzen, Franklin, Harmon, J., King, Lovely, Rodney, Smith, Spencer, Varela-Ibarra, Wilson

Professors: Ayala, Balch, P.M., Dunn, Elizondo, Ryan, Simon

Associate Professors: Polich, Reyes, Sabath, Stampfl

Assistant Professors: Castañeda, Garrison, Hill, R., Mora, Neumann, Robinett, Shumaker

Lecturers: Anderson, Balch, P.E., Blumberg, Bowen, Briggs, Carpenter, Carrasco, Corn, Derakhshan, Elig, Fuentes,

Gomez-Montero, Gonzalez, Jones, Livingston, Murphy, Murton, Nunn, Palese, Parker, Razo, Rickard, Rousseau, Sarot, Shaver, Sherlock, Shinn, Shook

Adjunct: Baker

General Information

The Imperial Valley Campus is a two-year upper-division campus of San Diego State University serving the desert area of southeastern California. It is accredited as an integral division of SDSU and operates under the same academic calendar. Established in 1959 by an act of the State legislature, the campus is located in the Imperial Valley on the Mexican border in the city of Calexico. Offering only the last two years of undergraduate education as well as a fifth year credential program for teacher preparation and occasional M.A. programs, the campus accepts transfer students, from community colleges or other colleges, who have at least 56 units. As a small campus, the Imperial Valley Campus offers students the advantages of small classes and individual contact with the faculty. Interactive television provides students in Calexico the opportunity to participate in some classes broadcast live from the campus in San Diego. The Imperial Valley Campus schedules its classes to meet once a week in three-hour blocks so that students who work full time can earn 9-12 units a semester by attending classes once or twice a week. Classes are also offered on the weekends.

The location on the Mexican border provides the opportunity for involvement in a bicultural environment. There are many opportunities to participate in the cultural life of Mexicali, just across the border, a city of more than 1,000,000 people. There are also many opportunities on the U.S. side of the border to be involved in a bilingual/crosscultural setting. There is an exchange program for students between the Imperial Valley Campus and the Universidad Autonoma de Baja California which allows students to take classes at either of the participating universities and receive credit at their home institution. Among the faculty are professors with Latin American emphases in history, geography, sociology, and Spanish. The faculty is also augmented with other Latin American specialists from Mexico and from the San Diego campus.

Imperial Valley Campus

The Imperial Valley is one of the richest agricultural centers in the country. It has a desert climate with mild winters and little rainfall. Because of this, the area has a great potential for the development of alternative energy sources. Geothermal energy is already being produced in the area and solar and wind energy are both potentially important sources for future development. The desert also offers the opportunity to study a fragile ecological environment. Highly significant archaeological discoveries have been made in the area and there is continuing archaeological fieldwork.

Curricula Offered

Degrees

Major in criminal justice administration with the B.S. degree in applied arts and sciences.

Major in English with the B.A. degree in liberal arts and sciences.

Major in history with the B.A. degree in liberal arts and sciences.

Major in international business (Latin American emphasis), with the B.A. degree in liberal arts and sciences (*Pilot Program*).

Major in Latin American studies with the B.A. degree in liberal arts and sciences.

Major in liberal studies with the B.A. degree in liberal arts and sciences.

Major in psychology with the B.A. degree in liberal arts and sciences.

Major in public administration with the B.A. degree in applied arts and sciences.

Major in social science with the B.A. degree in liberal arts and sciences.

Major in Spanish with the B.A. degree in liberal arts and sciences.

Minor in public administration.

Minor in small business management.

The Imperial Valley Campus, in cooperation with academic units and the Graduate Division on the San Diego campus, offers selected graduate programs leading to advanced degrees and credentials. Such programs, scheduled on a part-time basis for working professionals, have been offered for the Master of Arts degree in Education with a concentration in Administration and Supervision, the Master of Arts degree in Education with a concentration in Elementary Curriculum and Instruction or Secondary Curriculum and Instruction, the Master of Science degree in Counseling, Special Education Specialist credentials, the Master's degree in Social Work, and the Master's degree in Public Administration.

Certificate Programs

Art, Business Administration, Public Administration, Spanish Court Interpreting, Spanish Translation Studies

Teaching Credentials

Basic: Multiple Subject, Multiple Subject Cross-Cultural, Language and Academic Development (CLAD) emphasis, Multiple Subject Bilingual Cross-Cultural Language and Academic Development (BCLAD) emphasis: Spanish, Single Subject

Specialist: Administrative Services – in conjunction with the College of Education
Special Education – in conjunction with the College of Education

For further information, see the Bulletin of the Imperial Valley Campus.

Facilities

The campus is located on an eight-acre city block in the heart of Calexico's Civic Center, across from Rockwood Plaza. This was originally the site of Calexico's first high school, and some of the campus buildings, including Rodney Auditorium, are part of the original school structures. In 1980 the Legislature approved funding to construct a new classroom building and media center which was dedicated in February 1983.

The library, located in the center of campus, is designed to facilitate research and to provide a pleasant atmosphere for study. It features open stacks and a variety of study areas including carrels, large tables, and comfortable, upholstered chairs. The collection of over 80,000 volumes supports the curricula offered on the Imperial Valley Campus and includes a large bicultural collection. The library receives over 500 periodical and serial titles as well as a significant collection of microfilm and microfiche resources. Among the services provided library patrons are reference assistance, photocopying machines for print and microforms, typing rooms, interlibrary and intercampus loans, and computerized information retrieval.

The computer and media center provides assistance to the faculty in the use of educational technology. It has a wide range of equipment for use in the classroom. A modern language laboratory, computer laboratory, and tutoring center are available to the campus community.

A student union, bookstore, art gallery, administration/student services building, faculty office, and shop buildings complete the facilities on the campus.

Admission and Registration

To apply for admission to the Imperial Valley Campus, students must file a complete application and transcripts as outlined elsewhere in this catalog. Both completed application forms and transcripts should be sent to the Admissions Office, San Diego State University, Imperial Valley Campus, 720 Heber Avenue, Calexico, California 92231. Please telephone (619) 357-5509 for further information. Because of the size of the campus, the registration process is easily accomplished in a short period of time.

Scholarships

The Imperial Valley Campus students were awarded \$18,000 in scholarships for the 1994-95 academic year. Information and applications for scholarships are available from the Office of Scholarships. Following is a list of scholarships established at Imperial Valley Campus: American Association of University Women; American Business Women's Association; Bud Antle, Bud of California Scholarship; Calexico Coach Covington Scholarship; California Correctional Peace Officers Association; Delta Kappa Gamma; Educators Scholarship, SDSU-IVC; El Centro Rotary; Sally McMahon/Dover; Dr. Paul and Peg Erzen; Faculty/Student Mentor, SDSU-IVC; Government Agencies Federal Credit Union; Kiwanis Club of Blythe, CA; Mr. and Mrs. Bernard Lipinsky; Miller's Outpost; National Hispanic Scholarship; Phi Delta Kappa; Soroptimist International of Calexico.

Endowments: Deans; Enrique (Kiki) Camarena; Good Sport Howie; Jerry Pennington Memorial, San Diego Gas & Electric.

Commencement

The Imperial Valley Campus holds its own commencement exercises each spring, the day before commencement exercises on the San Diego campus.

Academic Divisions and Special Programs

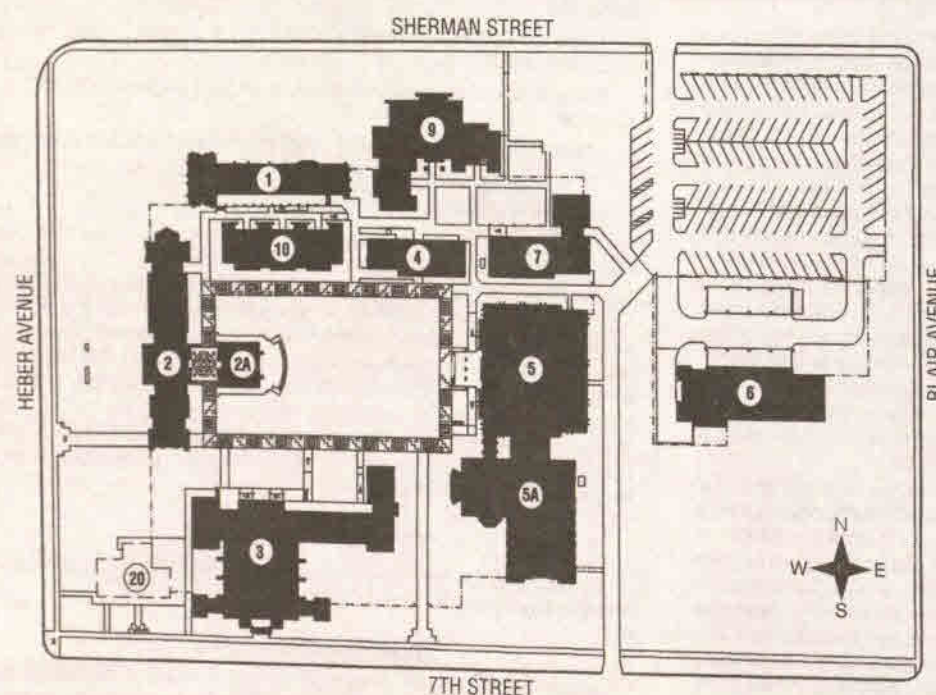
Division of
Undergraduate Studies

Graduate Division

Nondegree Curricula

Preprofessional Programs

Certificate Programs



BUILDING LEGEND

1. North Classroom Building
(N-101, N-102, N-106, N-108)
2. Administration Building
(Administration/Business Office/
Student Affairs)
- 2A. Art Gallery
3. Auditorium/Classrooms
(LA-1, LA-2, LA-3, LA-4)
4. Classroom Building
(C-6, C-7, C-8, C-9, C-10)
5. Library
- 5A. Library Addition
6. Physical Plant
7. Computer Building
9. Faculty Offices: Building East
10. Faculty Offices: Building West
20. Student Center

Division of Undergraduate Studies

Objectives and Functions

The Division of Undergraduate Studies serves to provide coordination and evaluation of the undergraduate programs at San Diego State University. It has general responsibility for the undergraduate curriculum and for academic standards and regulations that affect undergraduate students.

The Division has a special concern and responsibility for academic programs of a University-wide character. It administers the University Honors Program and Honors Exchanges, CSU International Programs, the Faculty/Student Mentoring Program, and the Servicemembers' Opportunity College. In addition, it sponsors the Liberal Studies majors.

Innovation contributes to the vitality of the University. The Division encourages and assists faculty in the development of new perspectives, programs, and curriculum, and in the preparation of grant proposals for academic improvement.

On significant matters of University-wide concern, the Division of Undergraduate Studies submits proposals to the University Senate for consideration and action.

Above all, the Division of Undergraduate Studies exists to promote the quality, diversity, and richness of the undergraduate programs at San Diego State University. It does so through the active involvement of students and faculty in the programs of the Division.

Honors Program

University Honors Program

The University Honors Program provides opportunities for students with demonstrated academic ability to find the stimulation and challenge that will help them develop their potential. The program offers courses which meet the General Education requirements common to all students; it does not offer work in specific majors. Students should anticipate enrolling in at least two honors courses each year, drawing their other work from the regular offerings of the University. The program is open to students in all majors, and involves small classes, special advising in both academic requirements and career options, opportunity for independent projects, and participation in student exchanges with similar programs across the nation.

Qualified students may apply upon admission to the University by contacting the Division of Undergraduate Studies (AD-223). Eligibility at entrance is determined by an SAT score of approximately 1100 or above (ACT 26), or a high school GPA of 3.5, including successful completion of advanced high school courses; later eligibility is determined by a superior GPA at this University and is subject to space limitations.

Departmental Honors Courses

Some departments regularly offer honors classes which are independent of the University Honors Program; for these eligibility is determined according to achievement in the particular field. Students should consult the Class Schedule for such honors classes and contact the department or instructor for information.

CSU International Programs

Developing intercultural communication skills and international understanding among its students is a vital mission of The California State University (CSU). Since its inception in 1963, the CSU International Programs has contributed to this effort by providing qualified students an affordable opportunity to continue their studies abroad for a full academic year. Close to 11,000 CSU students have taken advantage of this unique study option.

International Programs participants earn resident academic credit at their CSU campuses while they pursue full-time study at a host university or special study center abroad. The International Programs serves the needs of students in over 100 designated academic majors. Affiliated with 36 recognized universities and institutions of higher education in 16 countries, the International Programs also offers a wide selection of study locales and learning environments.

Australia. The University of Western Sydney

Brazil. Universidade de São Paulo

Canada. The universities of the Province of Quebec (13 institutions, including Université de Montréal, Concordia University, Université Laval, McGill University, Université du Québec system, Bishop's University, i.a.)

Denmark. Denmark's International Study Program (the international education affiliate of the University of Copenhagen)

France. Institut des Etudes Françaises pour Étudiants Étrangers, Université de Droit, d'Économie et des Sciences d'Aix-Marseille (Aix-en-Provence); Mission interuniversitaire de coordination des échanges Franco-Américains, Universités de Paris III, V, VI, VIII, X, XI, XII, XIII

Germany. Ruprecht-Karls Universität (Heidelberg) and Eberhard-Karls-Universität (Tübingen)

Israel. The Hebrew University of Jerusalem

Italy. CSU Study Center (Florence), Università degli Studi di Firenze, and La Accademia di Belle Arti di Firenze

Japan. Waseda University (Tokyo)

Mexico. Universidad Iberoamericana (Mexico City)

New Zealand. Lincoln University (Christchurch) and Massey University (Palmerston North)

Spain. Universidad Complutense de Madrid and Universidad de Granada

Sweden. Uppsala Universitet

Taiwan. National Chengchi University (Taipei)

United Kingdom. Bradford University, Bristol University, Kingston University, Sheffield University, and University of Swansea

Zimbabwe. University of Zimbabwe (Harare)

The International Programs pays all tuition and administrative costs for participating California resident students to the same extent that such funds would be expended to support similar costs in California. Participants are responsible for all personal costs, such as transportation, room and board, living expenses, and home campus fees. Participants remain eligible to receive any form of financial aid (except work-study) for which they can individually qualify.

To qualify for admission to the International Programs, students must have upper division or graduate standing at a CSU campus by the time of departure. Students at the sophomore level may, however, participate in the intensive language acquisition programs in France, Germany, and Mexico. California Community Colleges transfer students are eligible to apply directly from their community college if they can meet this requirement. Students must also possess a current cumulative grade point average of 2.75 or 3.0, depending on the program for which they apply. Some programs also have language study and/or other coursework prerequisites.

Information and application materials may be obtained from the Division of Undergraduate Studies (AD-223) or by writing to The California State University International Programs, 400 Golden Shore, Suite 122, Long Beach, California 90802-4275. Applications for the 1996-97 academic year overseas must be submitted by February 1, 1996.

International Study Courses

San Diego State University provides the opportunity for students enrolled in The California State University International Programs to receive credit for special study or for subjects taken at universities abroad. The numbers 200, 400, and 500 are used to designate lower division, upper division, and upper division also acceptable for graduate credit. Transcript designation will be **IS 200, 400, 500**.

IS 200, 400, 500. Projects in Study Abroad

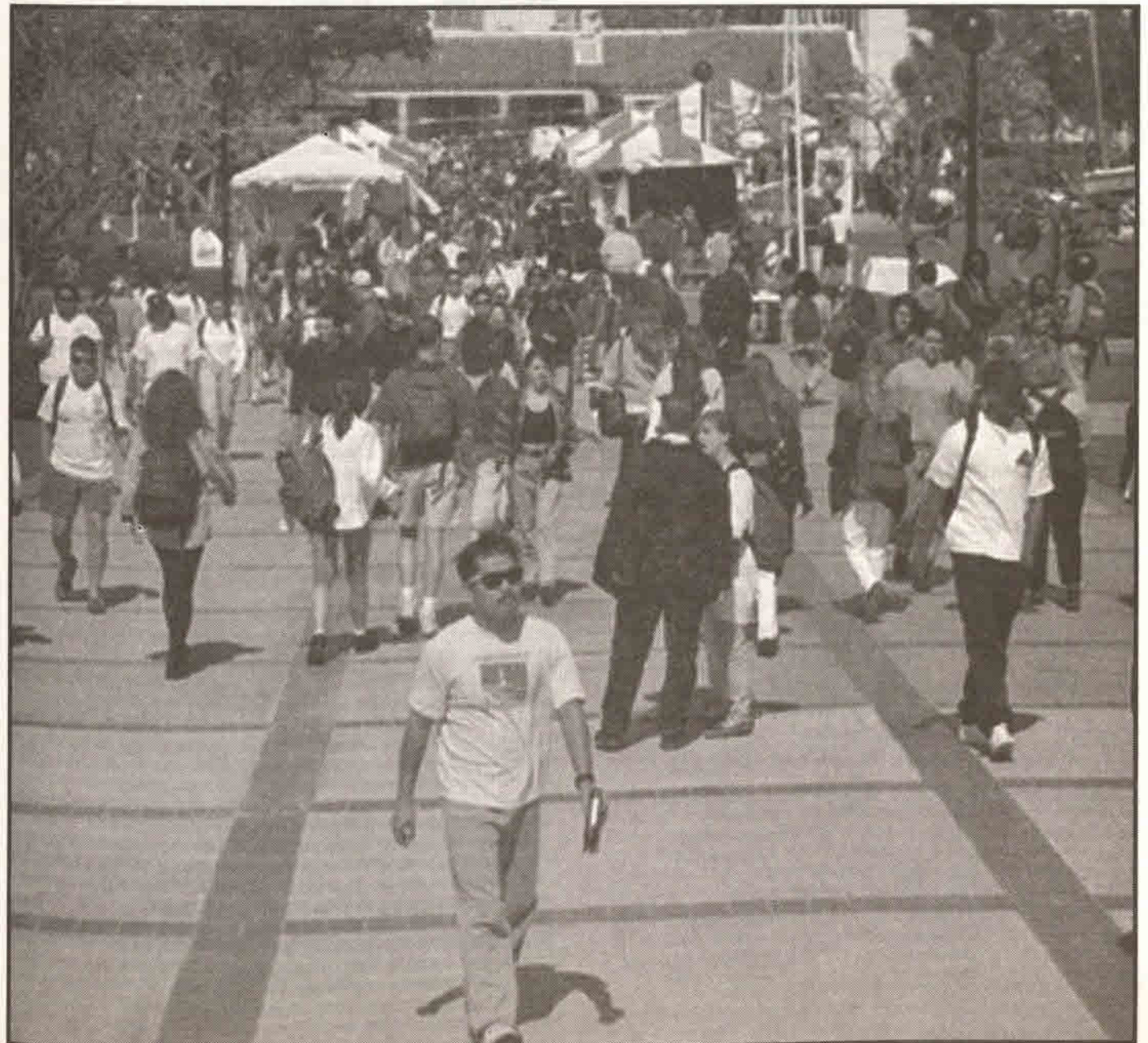
(Subject to be designated by Overseas Resident Director, International Programs) (1-6) I, II

Prerequisite: Open only to students in The California State University International Programs.

Coursework taken by students studying abroad under the auspices of the CSUIP. May be repeated with different content.

Faculty/Student Mentoring Program

The Faculty/Student Mentoring Program (FSMP) provides academic support opportunities and encouragement for students from underrepresented groups to assist them in reaching their goals. This support is offered through student mentors trained by faculty. All Colleges and the Imperial Valley Campus are participants in the program. Students are matched with faculty and students who share similar educational interests and goals. Students may apply by contacting the Faculty Mentor in their respective colleges. Information is available from the Division of Undergraduate Studies (AD-223).



Graduate Division

Organization and Administration

All graduate work leading to advanced degrees is under the jurisdiction of the Graduate Division and Research. Responsibility for all graduate curricula is delegated to the Graduate Council under the chairship of the Graduate Dean, who also serves as the administrative officer of the Graduate Division and Research.

The Graduate Division and Research admits all students to the University and to authorized graduate degree curricula, determines students' eligibility to continue in such curricula and, in the cases of unsatisfactory performance, requires students to withdraw from graduate curricula and the University.

The Graduate Dean is the appropriate University authority for the administration of all matters related to graduate degree curricula, minimum requirements for which are specified in Section 40510 of the *California Code of Regulations*.

Association Membership

San Diego State University is a member of the Western Association of Graduate Schools and the Council of Graduate Schools in the United States.

Degrees Offered

All master's degrees are conferred by the Trustees of The California State University upon recommendation of the faculty of San Diego State University. These degree programs are designed to provide instruction for graduate students in the liberal arts and sciences, in applied fields, and in the professions including the teaching profession.

Doctoral degrees are awarded jointly by the Board of Regents of the University of California and the Board of Trustees of The California State University in the names of San Diego State University and the cooperating campus of the University of California; in Education, jointly by the Board of Trustees of The California State University and the Board of Fellows of the Claremont Graduate School.

Doctor of Philosophy

The Doctor of Philosophy degree is offered in the following fields:

Biology	Engineering Sciences/Applied Mechanics
Chemistry	Geography
Clinical Psychology	Mathematics and Science Education
Ecology	Public Health/Epidemiology
Education	

Master of Arts

The Master of Arts degree is offered in the following fields:

Anthropology	English	Physical Education
Art	French	Physics
Asian Studies	Geography	Political Science
Biology	History	Psychology
Chemistry	Interdisciplinary Studies	Sociology
Communicative Disorders	Latin American Studies	Spanish
Drama	Liberal Arts	Speech Communication
Economics	Linguistics	Telecommunications
Education	Mathematics	Philosophy
English	Music	Women's Studies*

* Subject to systemwide approval.

Master of Science

The Master of Science degree is offered in the following fields:

Accountancy	Computer Science	Nursing
Aerospace Engineering	Counseling	Nutritional Sciences
Applied Mathematics	Electrical Engineering	Physics
Astronomy	Exercise Physiology	Psychology
Biology	Geological Science	Public Health
Business Administration	Interdisciplinary Studies	Radiological Health
Chemistry	Mass Communication	Physics
Child Development	Mechanical Engineering	Rehabilitation Counseling
Civil Engineering	Microbiology	Statistics

Master of Business Administration

Master of City Planning

Master of Fine Arts in Art

Master of Fine Arts in Creative Writing

Master of Fine Arts in Drama

Master of Music

Master of Public Administration

Master of Public Health

Master of Social Work

Admission to Graduate Study

Admission to San Diego State University for graduate study is open to those applicants judged by the University to be fully qualified to benefit from graduate study. The requirements listed below are the minimum required for admission to the University. For many programs, the departments have established additional requirements. Potential applicants should refer to the *Graduate Bulletin* under the departmental listings. Students in their final baccalaureate year are also advised to contact the departmental offices as soon as graduate work is contemplated for advice as to how to proceed. Some departments stop reviewing applications earlier than others because of the limited space available.

Application Procedures

All applicants for graduate and postbaccalaureate study (e.g., advanced degree applicants, those seeking credentials or certificates, and those interested in taking courses for personal or professional reasons, etc.) must file a complete application within the appropriate filing period. **Second baccalaureate degree candidates should apply as undergraduate degree applicants.** A complete application for graduate study includes the graduate and postbaccalaureate admission application plus supplementary materials determined by individual departments. Postbaccalaureate applicants, including those who completed undergraduate degree requirements and were graduated from this University, are also required to complete and submit an application and the \$55.00 nonrefundable application fee. Since applicants for graduate programs may be limited to the choice of a single campus on each application, approvals for redirection to alternative campuses or later changes of campus choice will be minimal. In the event that a graduate applicant wishes to be assured of initial consideration by more than one campus, it will be necessary to submit separate applications (including fees) to each. Applications may be obtained from the Admissions and Records Office or the Graduate Division of any California State University campus.

General Admission Requirements

All applicants for any type of graduate study at San Diego State University must: (a) hold an acceptable baccalaureate degree from an institution accredited by a regional accrediting association or have completed equivalent academic preparation as determined by the Graduate Dean; (b) have attained a grade point average of at least 2.5 (when A equals 4) in the last 60 semester (90 quarter) units attempted (this calculation may not include lower division courses taken after award of a baccalaureate degree); and (c) have been in good standing at the last institution attended. Applicants who do not qualify for admission under provisions (a) and (b) may be admitted by special action if the Graduate Dean determines that there is other academic or professional evidence sufficient to merit such action. **Each department or school offering an advanced degree program reserves the right of determining the admissibility of any student to that program even though the student may meet the general requirements for admission to graduate study.**

Members of the faculty of San Diego State University holding appointments at or above the rank of instructor or lecturer may not be candidates for degrees at this University. Faculty may register for courses as postbaccalaureate unclassified students.

Admission Categories

All applicants seeking admission to graduate study at San Diego State University must apply and be accepted in one of the following categories:

NOTE: Nearly all students who seek admission to graduate school as a postbaccalaureate (unclassified) student will be subject to Duplicate Degree Tuition. In addition, students seeking second masters degrees may also be subject to these fees. Contact the Graduate Division for additional information.

Postbaccalaureate Standing (Unclassified)

A student wishing to enroll in courses at the University for personal or professional reasons, but not necessarily with an objective of an advanced degree, credential, or graduate certificate may be considered for admission with postbaccalaureate standing (unclassified) when the student meets the criteria specified under General Admission Requirements. Admission with postbaccalaureate standing (unclassified) does not constitute admission to, or assurance of consideration for admission to, advanced degree curricula. Students admitted in this category may not enroll in 600-, 700-, and 800-numbered courses without special permission from the Graduate Division.

A student who is enrolled in the University with postbaccalaureate standing may request acceptance into an advanced degree curriculum with graduate standing (classified or conditionally classified). Applications for such continuing students are available from the Graduate Division and Research. Reports of the GRE General test scores must be on file at the University before continuing students may apply for graduate standing (classified).

Postbaccalaureate Standing (Classified)

A student wishing to be admitted to a program leading to a credential **only** or to an advanced certificate **only** (not an advanced degree) must meet the criteria specified under General Admission Requirements. Additionally, all students in advanced certificate programs must achieve a satisfactory score on the GRE General test. (Students holding an advanced degree from an institution that is a member of the Council of Graduate Schools are exempted from this requirement.) A student must also meet the professional, personal, scholastic and other standards prescribed by the appropriate department. The applicant should contact the department involved for information concerning specific admission requirements and should submit a departmental application during the appropriate filing period. Admission with postbaccalaureate standing (classified) does not constitute admission to, or assurance of consideration for admission to, advanced degree curricula.

Graduate Standing (Classified)

A student wishing to be admitted to a program of study leading to an advanced degree must meet the criteria specified under General Admission Requirements, and, in addition, must:

- Achieve a satisfactory score on the GRE General test. (Students holding an advanced degree from an institution which is a member of the Council of Graduate Schools are exempted from this requirement; students applying to the College of Business Administration will take the Graduate Management Admission Test.)
- Have completed an undergraduate major appropriate to the field in which the prospective student desires to earn an advanced degree.
- Satisfy the special departmental or college requirements as stated in Part Three of the *Graduate Bulletin* under "Fields of Study and Courses of Instruction."
- Meet the professional, personal, and scholastic standards for graduate study established by the department and the Graduate Council.

Students admitted with graduate standing (classified) are admitted to authorized advanced degree curricula and may enroll in 600- and 700-numbered courses. Such admission does not imply that a student will be advanced to candidacy for an advanced degree.

Conditional Graduate Standing (Classified)

A student wishing to be admitted to a program of study leading to an advanced degree who meets the criteria specified under General Admission Requirements but who has deficiencies in the criteria for graduate standing (classified) may be granted conditional graduate standing (classified), if the deficiencies can be met by specific additional preparation, including qualifying examinations. Not more than 15 semester units may be assigned to satisfy undergraduate deficiencies in the major and all course conditions must be met within five semesters from the time of initial enrollment. Students admitted with conditional graduate standing (classified) are admitted to authorized advanced degree curricula and may enroll in 600- and 700-numbered courses. Once the conditions established by the department, school, or college have been met, the student will be accorded full graduate standing (classified).

Albert W. Johnson University Research Lecture

A project sponsored by the University Research Council and the Graduate Division and Research, the Albert W. Johnson University Research Lectureship is awarded to an SDSU faculty member for outstanding achievement in research and scholarship. The purpose of the University Research Lectureship is to recognize such achievement, to foster its continuance, and to enable a distinguished resident faculty scholar to share knowledge more broadly with the academic community and the community-at-large.

One SDSU faculty member may be designated annually as the Albert W. Johnson University Research Lecturer for the academic year. Each of the lectures in the Series will be published to assure its increased availability to the students and faculty of the University and to the community at large.

Past lectures have included Dr. Maurice Friedman, Professor of Religious Studies; Dr. Helen Wallace, Professor of Public Health; Dr. David Ward-Steinman, Professor of Music; Dr. Robert Kaplan, Professor of Psychology; Dr. Alvin Coox, Professor of History; Drs. James Flood and Diane Lapp, Professors of Education; Dr. Catherine Yi-yu Cho Woo, Professor of Chinese; Dr. E. Percil Stanford, Professor of Social Work; and Dr. Joseph Ball, Professor of Anthropology.

Graduate Bulletin

Complete details on the operation and administration of these requirements, together with other information on graduate study, will be found in the *Graduate Bulletin*, which is available at the Bookstore.

Nondegree Curricula

Preprofessional Programs

Entrance into professional schools is becoming increasingly competitive; therefore, it is imperative that students begin planning their curriculum at the earliest possible time in conjunction with the appropriate academic adviser.

Preprofessional Health Advising Office

The preprofessional health advising office is responsible for advising premedical, pre dental and preveterinary students in their preparation and application to the professional schools of their choice. This office works in conjunction with the candidate's major department to establish a degree program coordinated with the preprofessional requirements of the professional schools. It is the communication link between the student and the profession, keeping the student apprised of changes in the requirements and procedures for acceptance. The advising office is located in Life Sciences, Room 204, (619) 594-6638; Cynthia Lewis, adviser.

Pre dental Curriculum

The pre dental program is pursued in conjunction with a degree program. Students ordinarily elect to concentrate in biology, chemistry, or microbiology, with a major in one area and selected coursework in the others. Other departmental majors are permissible, however. **Pre dental students should confer with the pre dental adviser prior to initial registration and at least once each semester regarding their progress, and to obtain approval for their program for the coming semester. Minority pre dental students should apply for the Health Careers Opportunity Program (HCOP) in Life Sciences, Room 204.**

Science requirements. Regardless of the major, pre dental students should include the following courses in their program: Biology 201, 202, 215, 352, 356, 577, 590; Chemistry 200, 201, 231, 431; Mathematics 121 and 122, or 150; Physics 180A-182A and 180B-182B, or 195, 195L, 196, 196L, 197, 197L; Psychology 101 plus one upper division course in psychology. Each student should consult the major for level of course required when there are alternatives. **Biology 250B, Topics in Dentistry, is offered each spring semester and Biology 340A and 340B, Preventive Dentistry, is offered every semester.**

Recommended electives. In addition to the courses listed, students should fulfill all requirements for their major and, if possible, take at least one advanced course recommended by their department such as Chemistry 361A, 361B; Biology 350. The students are also expected to obtain information from the preprofessional health advising office regarding the entrance requirements of specific dental schools.

College preparation. High school students planning to enter dentistry should include in their high school program the following subjects: elementary algebra, plane geometry, intermediate algebra, chemistry, physics, two or three years of French, German or Spanish, and four years of English.

Admission. Pre dental students must realize that the pool of dental applicants has recently increased and the competition for admission to schools of dentistry, particularly at University of California, Los Angeles and University of California, San Francisco is great. The average overall GPA of the entering class of 1992 to UCLA was 3.3.

Aptitude tests given by the American Dental Association should be taken not later than fall term one year before admission. Application to take this test must be made well in advance of the scheduled test date. A pamphlet describing the test, giving dates and places where it will be given, and providing application information is available in the preprofessional health advising office.

The Committee Letter is preferred by most schools of dentistry. It is San Diego State University's formal endorsement of your candidacy. Most schools also require three letters of evaluation, two of which should be from science professors from whom you have taken courses. Evaluation forms are available in the preprofessional health advising office.

The preprofessional health adviser will be available to high school or transfer students by appointment in June and during the August registration period. **All pre dental students should establish a personal file in Life Sciences, Room 204; 594-6638.**

Pre legal Curriculum

The pre legal program is pursued in conjunction with a degree program. There is no specific pre law program leading to a bachelor's degree. Students interested in the legal profession should consult with the University pre law adviser regarding the entrance requirements of the specific law school they hope to attend.

The following curriculum is designed to meet the requirements of standard American schools of law for a broad and liberal education, while at the same time providing desirable flexibility in the individual programs. There are two patterns of concentration which will usually be indicated for the pre legal student, either of which may be selected, in consultation with the adviser, to fit best the interests of the student. These are the major-minor pattern and the liberal studies major pattern. Subject to individual variation, the fields of economics, history, and political science should receive first consideration when choosing the pattern of concentration as being the most effective background for later professional study in law.

The following courses of study are recommended. Lower division: Accountancy 201 and 202, Economics 101 and 102, Political Science 101 and 102, and a year course in history. Upper division: In the junior and senior years students will plan their course with the counsel of their adviser in terms of the field of law in which they plan to work, but keeping in mind the entrance requirements and examinations for admission to schools of law. The following list should receive prime consideration by all pre legal students in the selection of courses, though it is to be thought of as flexible in accordance with student needs. Finance 340; Economics 338, 370; History 545A-545B; Political Science 301A-301B, 346, 347A-347B. Additional: Economics 380, History 536 and 547A-547B, Political Science 345 and 348.

In addition to the courses taken in the fields of concentration, upper division electives in English, philosophy, psychology, sociology, and speech communication are recommended. A mastery of English is essential.

Students interested in pursuing a legal career are counseled by the University pre law adviser. Through this office, pre legal students receive information and advice concerning law school application and admission procedures. Guidance in undergraduate preparation for law study is also available. The University pre law adviser can be contacted through the Department of Political Science.

Premedical Curriculum

The premedical program is pursued in conjunction with a degree program. Students ordinarily elect to concentrate in biology, chemistry, or microbiology, with a major in one area and selected coursework in the others. Other departmental majors are permissible, however. **Premedical students should confer with the premedical adviser prior to initial registration and at least once each semester regarding their progress, and to obtain approval for their program for the coming semester. Minority premedical students should apply for the Health Careers Opportunity Program (HCOP) in Life Sciences, Room 204.**

Science requirements. Regardless of the major, premedical students should include the following courses in their program: Biology 201, 202, 215, 352, 356, 577 and 590; Chemistry 200, 201, 231, 361A, 361B, 431; Mathematics 121 and 122, or 150; Physics 180A-182A and 180B-182B, or 195, 195L, 196, 196L, 197, 197L. Each student should consult the major for level of course required when there are alternatives. **Biology 250A, Topics in Medicine, is offered each fall semester.**

Recommended electives. In addition to the courses listed, students must fulfill all requirements for their major and, if possible, take at least one advanced course recommended by their department such as: Biology 350; Psychology 101. Students are also expected to obtain information from the preprofessional health advising office regarding the entrance requirements of specific medical schools.

College preparation. High school students planning to enter medicine should include in their high school program the following subjects: elementary algebra, plane geometry, intermediate algebra, chemistry, physics, two or three years of French, German or Spanish, and four years of English.

Admission. Most medical schools give preference to students with baccalaureate degrees in academic subjects; **premedicine is not an academic major.** Any major is acceptable to medical schools, and recent research has demonstrated that there is no bias against the nonscience major in the selection process. Nor is there any significant difference between the science and the nonscience major in medical school performance or in eventual selection of residency. The specific requirements for various majors are found in this catalog under department and program headings.

Competition for admission to California medical schools has increased markedly in the past few years. Selection for admission is based on many factors beyond the satisfactory completion of minimum requirements including undergraduate grade point average, MCAT scores, and letters of evaluation. Courses taken to satisfy the science requirements must be taken on a graded basis. The credit/no credit option should be used sparingly on nonscience courses.

Nearly all medical schools also require applicants to take the MCAT, given early spring and in August each year. Reservations for this examination **must** be made at least one month in advance of the scheduled date; application packets are available in the preprofessional health advising office.

The office also has a manual which describes the test and provides practice questions and suggestions for preparing for the test. Applicants are urged to take the test in the spring of the calendar year preceding the year of admission to medical school and not later than the fall term one year before anticipated admission.

The Committee Letter is preferred by most schools of medicine. It is San Diego State University's formal endorsement of your candidacy. Three to five letters of evaluation are also generally required by medical schools and used in the selection process. At least two letters should be from science faculty. The importance of these letters cannot be overemphasized. It is strongly recommended that premedical students secure letters from instructors immediately upon finishing courses, and that students see their adviser regularly so that the adviser can write knowledgeable recommendations when needed. Evaluation forms are available in the preprofessional health advising office.

The varying admission requirements of medical schools are listed in the publication *Medical School Admission Requirements* (available in the Bookstore). Since most students seek admission to about twenty medical schools, this book should be consulted during the year of application.

Osteopathic medical schools require basically the same minimum undergraduate program. Most schools also request letters of evaluation from practicing osteopaths.

The preprofessional health adviser will be available to high school or transfer students by appointment in June and during the August registration period. **All premedical students should establish a personal file in Life Sciences, Room 204; 594-6638.**

Preveterinary Curriculum

The preveterinary program is pursued in conjunction with a degree program. Students ordinarily elect to major in biology. Other departmental majors are permissible, however. **Preveterinary students should confer with the preveterinary adviser prior to initial registration and at least once each semester regarding their progress, and to obtain approval for their program for the coming semester. Minority preveterinary students should apply for the Health Careers Opportunity Program (HCOP) in Life Sciences, Room 204.**

Science requirements. Regardless of the major, preveterinary students should include the following courses in their program: Biology 201, 202, 215, 352, 577; Chemistry 200, 201, 231, and 431; Mathematics 121 and 122, or 150 (most veterinary schools do not require calculus); Physics 180A-182A or 195, 195L; three semesters of English; three semesters of humanities.

Recommended electives. In addition to the courses listed, students should fulfill all requirements for their major and, if possible, take at least one advanced course recommended by their department such as: Biology 350, 354, 356, 522, 590; Chemistry 361A. **Biology 250C, Topics in Veterinary Medicine, is offered each fall semester.**

College preparation. High school students planning to enter veterinary medicine should include in their high school program the following subjects: elementary algebra, plane geometry, intermediate algebra, chemistry, physics and four years of English.

Admission. Competition for veterinary school admission continues to be great, with a 4 to 1 ratio of applicants to accepted students at University of California, Davis. All preveterinary students should consider applying to one or more out-of-state schools in addition to UC Davis as most now accept nonresidents. The 1991 UC Davis entering class had the following average statistics: cumulative undergraduate GPA, 3.3; required science coursework GPA, 3.3; last two years of undergraduate work GPA, 3.4; Graduate Record Examination general aptitude test scores—verbal 78%, quantitative 74%, analytical 84%; advanced test in biology 72%.

Admission criteria at UC Davis include the following:

1. Academic factors (50%-60%). College undergraduate plus graduate (if applicable) GPA; GPA of required science coursework; GPA of last two years of undergraduate work; Graduate Record Examination.
2. Nonacademic factors (40%-50%).
 - a. Application narration (5%-20%)
 - b. Animal and veterinary science related experience (0%) (See preveterinary adviser.)
 - c. Letters of evaluation (5%-20%)
 - d. Interviews (0%-20%)

The Committee Letter is used by most schools of veterinary medicine. It is San Diego State University's formal endorsement of your candidacy. Two or three additional letters from veterinarians and faculty are also generally required and used in the selection process. The importance of these letters cannot be overemphasized.

A publication, *Veterinary Medical School Admission Requirements in the United States and Canada* is available in the preprofessional health advising office and the Bookstore.

The preprofessional health adviser will be available to high school or transfer students by appointment in June and during the August registration period. **All preveterinary students should establish a personal file in Life Sciences, Room 204; 594-6638.**

Allied Health Professions

The allied health professions include chiropractic medicine, dental hygiene, occupational therapy, optometry, pharmacy, physical therapy, physician assistant, and podiatric medicine. San Diego State University does not offer specific degree programs in these fields. Pre-physical therapy advising is in the Exercise and Nutritional Sciences Department, PE 331; telephone 594-5161 (Dr. Patricia Patterson or Ronald Josephson).

Prechiropractic Medicine, Prepharmacy, Preoptometry, and Prepodiatric Medicine. Students interested in these fields usually major in biology since this curriculum is most appropriate. Other majors, such as chemistry, may be used; however, students must complete the required courses regardless of which major is chosen. In general, all schools require the same courses in biology, chemistry, physics, and mathematics; students should be in contact with the schools of their choice to determine any specific requirements.

Typical Course Requirements for Entrance to a Professional Degree Program in One of the Above Allied Health Professions. Biology 150, 201, 202, 350, 436, 590; Chemistry 200, 201, 231, 431; English 100, 200; Mathematics 121, 122; Physics 180A-180B, 182A-182B; Psychology 101.

Preoccupational Therapy. Students interested in a career in occupational therapy may major in a variety of areas including psychology, art, or biology. There are several schools in California that offer B.S. or M.S. degrees in occupational therapy. Students must complete certain courses required by each school; in general, these include courses in the humanities, natural sciences and mathematics, and social sciences.

Prephysical Therapy. The prephysical therapy curriculum is pursued in conjunction with an academic major. Students ordinarily select a major in Physical Education (specialization in Athletic Training Pre-Physical Therapy) and complete selected coursework in other departments. Another departmental major often selected is biology. Pre-physical therapy students should confer with their departmental adviser prior to initial registration, and at least once each semester regarding their program progress.

Prephysical therapy requirements. Course requirements for entry to physical therapy school vary according to the school. Generally, prephysical therapy students should include the following courses in their program: Biology 150, 201, 202, 210, 336, and 436; Chemistry 200 and 201; Information and Decision Systems 180; Physics 180A-180B, 182A-182B; and Psychology 101, 270, and 350. Information regarding the required courses for specific physical therapy schools is available through the Department of Exercise and Nutritional Sciences. Each student should consult the major adviser for the level of course required when there are alternatives.

Recommended Electives. In addition to the courses listed, students must complete requirements for their major. In order to enhance preparations for physical therapy, professional school students should consider completing one or more of the following courses: Biology 580 and 590; Chemistry 230; Mathematics 121; Physical Education 301, 303, 304, 307; Psychology 260 and 330.

Admission: Most physical therapy schools give preference to students with baccalaureate degrees in academic subjects. The accredited physical therapy programs in California and their entrance requirements are available in a handout from the Department of Exercise and Nutritional Sciences. A list of physical therapy schools in other states can be obtained from the American Physical Therapy Association in Washington, D.C.

Students are reminded that requirements for admission to physical therapy school are varied. Therefore, the student should consult the above sources and the school(s) of choice at least two years prior to expected application. Students should expect to fulfill the following general requirements for admission: (1) specific course requirements as outlined above; (2) volunteer experience in a hospital or clinical physical therapy program; and (3) satisfactory completion of the GRE examination. The athletic training adviser has a list of hospitals and clinics where students can gain volunteer non-professional experience in physical therapy.

Preparation for Other Professions

Full programs of professional study in other fields, such as agriculture, forestry, architecture, and theology, are not available at San Diego State University. However, students who may wish to take some undergraduate work in liberal arts at this university can also begin coursework in preparation for such programs. Students are advised to consult the catalog of the university to which they expect to transfer to determine requirements before arranging the program. Further information may be obtained from the Assistant Dean of Students in the appropriate college at San Diego State University.

Certificate Programs

Basic Certificate

The purpose of the basic certificate program is to provide individuals whose educational objectives do not require a degree program the opportunity to participate in University academic activities designed to meet specific educational needs.

Ordinarily, credit certificate programs are available to matriculated and nonmatriculated students. Students seeking a certificate must apply for admission according to the guidelines set forth by the individual certificate programs.

Coursework for a basic certificate shall not duplicate in content and level the student's prior educational experience. Unless otherwise stated, a student may apply no more than six units of coursework from a basic certificate program toward a major or minor with the approval of the department.

For a complete listing of certificate programs offered by San Diego State University, refer to the Curricula Summary section of this catalog.

Advanced Certificate - Postbaccalaureate

The advanced certificate at the postbaccalaureate entry level provides students a program of coursework leading to a specific applied goal. The general educational background of a bachelor's degree with a major in the appropriate field(s) of study is prerequisite to such a certificate.

For a listing of admission standards and specific certificate requirements, refer to the Graduate Bulletin.

College of Extended Studies

Continuing Education

Functions

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 institution's educational services and are in concert with the institution's 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.

The College of Extended Studies serves as the principal University liaison with the adult community and provides a wide variety of traditional and nontraditional, credit and noncredit, quality educational experiences designed to fit the life style and expectations of mature adults. In addition, it provides a range of academic and special programs for students and groups during the summer months, in the evenings, and between semesters. Under the direction of the Dean of the College, programs are developed and carried out within five divisions—Special Sessions and Extension, Professional Development, American Language Institute, International Training Center, and Administrative Services. The majority of the programs are operated on a self-support basis since state funds are not provided for Continuing Education activities.

Summer Programs

The College of Extended Studies administers a comprehensive summer program for San Diego State University. Approximately 800 courses, workshops, short courses, interdisciplinary and experimental offerings, and special programs are available for matriculated students, students from other institutions and special groups. Credit earned during the summer is applicable to graduation and residence requirements; however, admission to the University is not required for summer attendance. Enrollment in Summer Sessions courses will be considered for students seeking reinstatement to the University; however, successful completion in such residence courses will not guarantee immediate reinstatement.

Several major sessions are scheduled each summer: two 3-week terms, one major 6-week term, and a variety of other terms. The summer program is offered from approximately the first of June through the middle of August each year.

A graduate student may earn credit in residence which may be used to satisfy the requirements for an advanced degree or for credentials. If a student plans to offer work taken in a summer session to satisfy the requirements for an advanced degree, the student must make early application for admission to the University with classified graduate standing at the Office of Admissions and Records.

Students planning to attend the University during the fall semester must be cleared for admission through the Office of Admissions and Records.

The *Summer Sessions Bulletin*, which includes the registration form and all necessary information about the summer sessions, is available in March.

Winter Session

The College of Extended Studies administers a special academic program during the winter recess period titled "The Winter Session."

This special session provides students an opportunity to earn resident academic credit through participation in concentrated coursework. Credit earned during Winter Session is applicable to graduation and residence requirements. Admission to the University is not required for Winter Session attendance. Enrollment in Winter Session courses will be considered for students seeking reinstatement to the University; however, successful completion in such residence courses will not guarantee immediate reinstatement.

American Language Institute (ALI)

The American Language Institute offers noncredit intensive (20-25 hours per week) English programs throughout the year to students and professionals interested in improving their English proficiency. By enrolling in the ALI, students may take advantage of a program called conditional acceptance. Conditional acceptance is available to those students who require admission, or proof of eligibility for admission, to a university in order to obtain a passport, a U.S. Visa, or government sponsorship. It is offered to students who do not have an adequate command of English or the required TOEFL (Test of English as a Foreign Language) score to qualify for admission to the University. After transcripts of their academic work have been evaluated by SDSU staff, students may receive an official letter of conditional admission which states that the student has met all University requirements except English language proficiency and may enter the University after training at the American Language Institute and achieving appropriate TOEFL scores.

Programs offered by ALI are as follows:

English for Academic Purposes

An 11- to 17-week course for students planning to enter San Diego State or other colleges or universities. Classes are offered in reading, writing, grammar, academic listening/notes-taking and academic speaking, as well as in special areas, including TOEFL, GMAT, and GRE test preparation and business topics. In addition, students may choose from over 30 elective course offerings. Students may also specialize in Pre-MBA preparation.

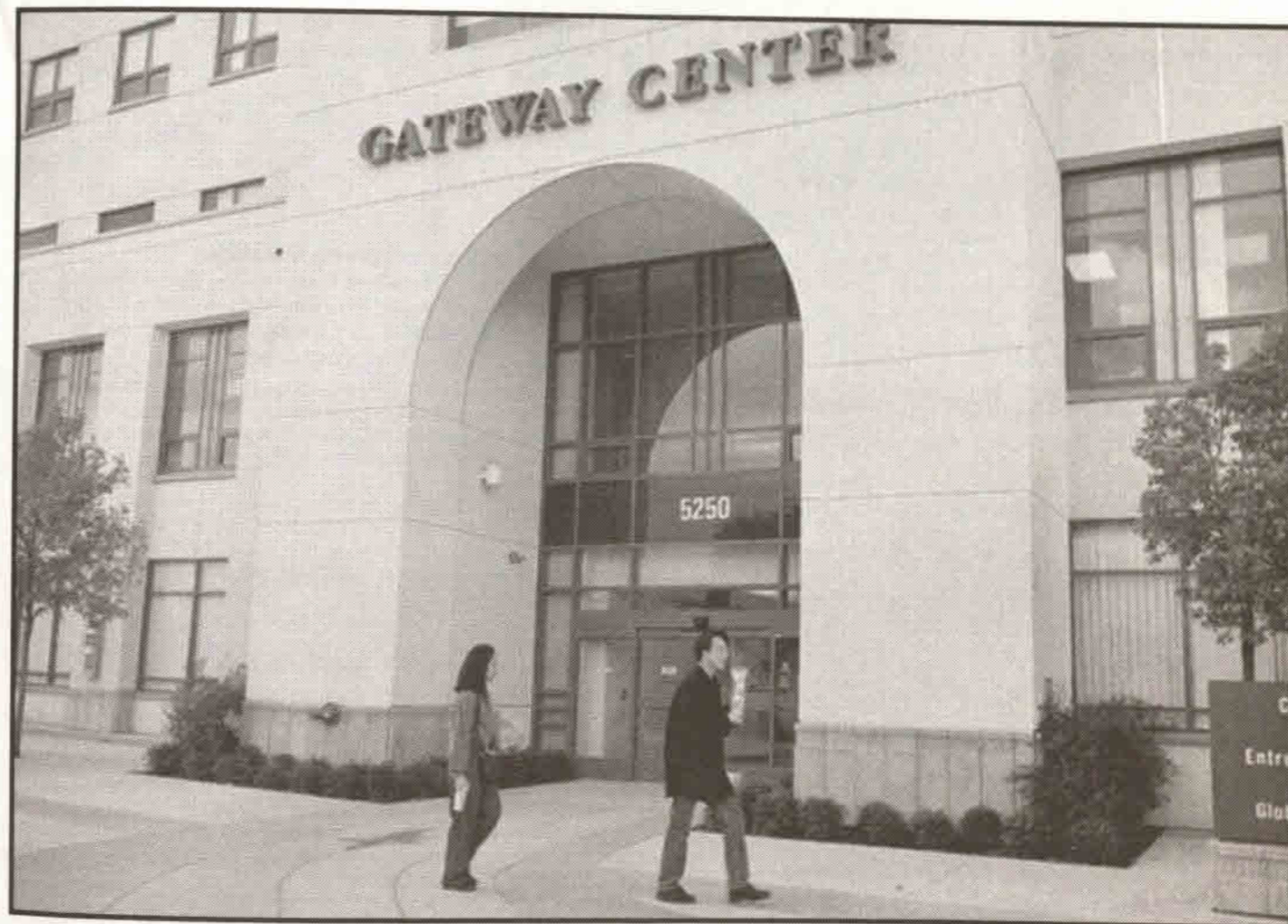
Highly advanced students may register for three to twelve units in the Open University in addition to their English classes.

Intensive English Communications

A 6- to 19-week course emphasizing oral skills and cultural experiences. Classes include eight hours of oral communication in addition to 12 hours of reading, writing, structure, and listening per week. Elective courses are offered and directed activities at SDSU and in the community provide experiences for language use. Professionals in IEC may specialize in Intensive English for Managers. Regular field trips to places of educational and recreational interest are an integral part of the program.

Specific Purposes Programs

Programs for students and professionals with specific needs, including Management and Business English; Business Seminar for International Executives; Seminar for International Teachers of English; Certificate in Business Administration Program; Pre-MBA Preparation; as well as advanced academic skills (statistics review, graduate report writing, research library skills, etc.) are arranged.



Summer Special Programs

A number of special short-term language programs are offered by the ALI each summer (e.g., Management and Business English, Business Seminar for International Executives, Seminar for International Teachers of English). These can be arranged for groups or individuals.

Services

All students at the Institute are offered housing assistance, counseling for university entrance, health services and orientation to university life.

Information about and applications for the ALI can be obtained from the Director, American Language Institute.

Travel Study Programs

The College offers a variety of domestic and foreign travel study programs which are designed to give students and community members an opportunity to travel and earn units of credit. Programs range from two to three weeks in length, with a maximum of four units of credit offered.

For further information contact the Coordinator of Travel Study Programs.

Extension

In order to meet the needs of the adult community, as well as matriculated students, the College provides a variety of extension courses, workshops, and Open University. For the convenience of

adult students most courses are scheduled in the evenings or on weekends, on campus or at convenient learning extension centers throughout the service area.

Extension Courses

Extension courses are offered each semester in a number of areas including education, business administration, public administration, and the arts and sciences. Many courses and programs are developed in cooperation with off-campus organizations and groups who have identified specific needs. Many one-unit weekend workshops are also offered throughout the year. These courses are listed in a special Extended Studies Program Bulletin published four times a year.

There is no limit on the total number of extension units for which a student may enroll; however, the maximum extension credit which may be used toward bachelor's degree requirements at San Diego State University is 24 units. Extension work is considered the same as transfer credit and is therefore not included in the student's San Diego State University scholastic average.

Open University

Most regular, on-campus classes are open to qualified extension students by special permission of the department and the instructor. Students who take advantage of "Open University" are required to pay regular extension fees. They are permitted to enroll only after matriculated students have completed their registration. Consult the College of Extended Studies or the current Class Schedule for complete details on Open University qualifications and registration procedures.

Matriculated students may not enroll in Open University. Credit earned through one semester of Open University enrollment may be considered as residence credit for students who subsequently matriculate at the University in an advanced degree program. A maximum of 24 units from Open University may be applied to the bachelor's degree requirements. The course repeat policy does not apply to courses repeated through Open University.

Open University classes may not be taken by the following:

1. Nonmatriculated foreign students (nonresidents from non-English-speaking countries) with a score of less than 450 on the Test of English as a Foreign Language (TOEFL) or its equivalent.
2. Foreign students with F-20 visas from another university.
3. SDSU matriculated students except those students enrolling in 799B or 899B courses.

Retired Adults Education Program

Programs for retired adults are sponsored by the College of Extended Studies at San Diego State University and operate out of two locations—San Diego (Educational Growth Opportunities—EGO) and Rancho Bernardo (The Continuing Education Center at Rancho Bernardo).

Retired adults, who are interested in continued learning, participate in these programs.

For further information, contact the Director of Retired Adult Education Programs.

Professional Development

The Division of Professional Development provides business, industry, and human service and other organizations with programs that are responsive to the training and development needs of their employees. Through the Division's activities, participants are kept abreast of the latest business, managerial, and technical techniques that ensure they will add to the productivity and profitability of their organizations.

Certificate Programs

Professional certificate programs are coordinated by the Division of Special Sessions and Extension. Educational services are provided for a wide variety of groups and professional organizations. Credit certificate programs are offered in the following areas: Applied Gerontology, Construction Practices, Fire Protection Administration, Government Contract Management, Human Resources Management, Materials Management, and Accounting.

The Division also offers noncredit certificate programs in special interest areas.

Custom On-Site Training

SDSU's Professional Development Division of the College of Extended Studies specializes in developing and implementing on-site training programs and consulting projects which meet specific needs of the San Diego business community.

The programs serve small as well as large businesses, with topics ranging from computer, team building, and communication skills to supervision and management development.

Program leaders and training consultants are drawn from the academic and business worlds and have extensive practical experience.

Programs are cost effective and designed with quality and adaptability.

Seminars and Workshops

The Division coordinates practical two- and three-day seminars and workshops aimed at increasing the skills of the business professional. These seminars are taught by local and national seminar leaders chosen from the business and academic worlds for their expertise and outstanding teaching ability. Topics addressed cover a wide range of business and engineering subjects, such as management, finance, marketing, engineering, construction, manufacturing, purchasing, and computer literacy.

Corporate Partnerships:

Center for Information Technology, Management Development Center, Software Engineering Forum, Institute for Quality and Productivity, Institute for Manufacturing Excellence

The Professional Development Centers and Institutes offer practical, intensive, training opportunities in the fields of information systems, management, manufacturing, quality and software engineering. The Division has established these programs in cooperation with the San Diego corporate community. The purpose of these unique cooperative programs is to provide quality, cost-effective continuing education for business, industry and government personnel in specific fields. The corporate members form a fellowship in which all participate in applying proven solutions to their education and training needs.

International Training Center

The International Training Center (ITC) addresses the new opportunities in professional development, training and technology transfer created by the increasing globalization of our economic, social and business activities. The Center is charged institutionally with a wide range of programs dealing with innovation, professionally relevant education and current issues of interest to the international community. Activities include joint efforts with the various divisions of the College of Extended Studies to expand their services to foreign countries, as well as collaborative projects with SDSU's academic colleges and support units. The Center also advises and provides guidance to SDSU's administration on international agreements and special projects of institutional interest.

The International Training Center brings significant University resources to bear on the challenges of international businesses and responds to the economic global change through the following mechanisms:

- International video conferencing, supporting professional and human resource development through interactive satellite communication. International experts present video-seminars on management, technology transfer, and countless other topics, supporting the training needs of government, industry, and education.
- Professional Certificates offered to foreign executives interested in beginning or expanding their international activities. These certificate programs offer business leaders the opportunity to learn the most current interactive business practices, and to meet suppliers, distributors, and venture partners in new markets.

The International Training Center exists to increase understanding of the new realities of global development, and to serve government and industry through technology training and human resource development.

Regulations

Admission and Registration

General Regulations

Admission and Registration

Admission Procedures and Policies

Requirements for admission to San Diego State University are in accordance with Title 5, Chapter 1, Subchapter 3, of the *California Code of Regulations*. If you are not sure of these requirements, you should 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.

Importance of Filing Complete, Accurate, and Authentic Application Documents

San Diego State University 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 have past universities send authentic and official transcripts of all previous academic work attempted. Official transcripts are defined as transcripts sent directly from previous university admissions and records unit to the SDSU Office of Admissions and Records. Sealed transcripts carried by a student to SDSU are NOT considered official transcripts. Failure to file complete, accurate, and authentic application documents may result in denial of admission, cancellation of academic credit, suspension, or expulsion (Section 41301 of Title 5, *California Code of Regulations*). This requirement is effective from initial contact with the University and throughout the period the academic record is maintained.

Requirement and Use of Social Security Account Number

Applicants are required to include their social security account number in designated places on applications for admission pursuant to the authority contained in Section 41201 of Title 5, *California Code of Regulations*. The social security account number is 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 institution.

Measles and Rubella Immunizations Health Screening Provisions

All new and readmitted students born on or after January 1, 1957 must comply with The California State University 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 at SDSU. San Diego State University students who have not complied with this CSU mandate will receive an "I" hold on their second term registration materials. The "I" hold restricts students from enrolling in classes until the requirement is fulfilled.

Because of recent occurrences of measles epidemics on college campuses nationwide, all students are encouraged to consider **receiving a second immunization for measles prior to enrollment**.

In addition to demonstrating immunity to measles and rubella at Student Health Services, some students may be further required to present documentation to other campus officials. Students subject to

this additional screening 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 fieldwork involving preschool-age children and/or school-age children or taking place in a hospital or health care setting.

Immunization documentation should be mailed or brought to SDSU Student Health Services, Immunization Program, 5500 Campanile Drive, San Diego, CA 92182-4701. For those students unable to obtain acceptable proof of measles and rubella immunizations, Student Health Services will provide immunizations at no cost.

Undergraduate Application Procedures

Prospective students applying for part-time or full-time undergraduate programs of study, in day or evening classes, must file a complete undergraduate application as described in the undergraduate 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. An alternate campus and major may be indicated on the application, but **applicants should list as alternate campus only a CSU campus that also offers their major**. Generally, an alternate major will be considered at the first choice campus before an application is redirected to an alternate choice campus.

Limitation of Enrollment

Admission to a state university must be restricted in relation to the number of students for whom an adequate education can be provided by the staff and facilities available. The Trustees have authority on this matter.

Impacted Programs

The CSU designates programs to be impacted when more applications are received in the first month of the filing period than the campus can accommodate. Some programs are impacted at every campus where they are offered; others are impacted only at some campuses. You must meet supplementary admissions criteria if 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 Review*, distributed to high school and college counselors. Information about the supplementary criteria is also sent to program applicants.

You must file your application for admission to an impacted program during the first month of the filing period. Further, if you wish to be considered in impacted programs at two or more campuses, you must file an application to each.

The following majors are impacted at San Diego State University: Business Administration (upper division), Criminal Justice Administration, International Business (upper division), Journalism (upper division), Nursing, and Telecommunications and Film.

Supplementary Admission Criteria

Each department with an impacted major uses supplementary admission criteria in screening applicants. Supplementary criteria may include ranking on the freshman eligibility index, the overall transfer grade point average, completion of general education courses, and a combination of campus or departmentally developed criteria. If you are required to submit scores on either the SAT or the ACT, you should take the test no later than December if applying for fall admission.

The supplementary admissions criteria used to screen applicants appear periodically in the *CSU Review* and are sent 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 alternate major either at the first choice campus or another campus.

Graduate and Postbaccalaureate Application Procedures

All graduate and postbaccalaureate applicants (e.g., master's degree applicants, those seeking credentials, and those interested in taking graduate level courses for personal or professional growth) must file a complete graduate application as described in the graduate and postbaccalaureate admission booklet. Applicants who completed undergraduate degree requirements and graduated the preceding term are also required to complete and submit an application and the \$55 nonrefundable application fee. Since applicants for postbaccalaureate programs may be limited to the choice of a single campus on each application, redirection to alternate campuses or later changes of campus choice will be minimal. To be assured of initial consideration by more than one campus, it will be necessary for any applicant to submit separate applications (including fees) to each. Applications may be obtained from the Graduate Studies Office of any California State University campus.

Application Filing Periods

Terms in 1995-96	Applications First Accepted	Student Notification Begins
Fall Semester 1995	November 1, 1994	February 1995
Spring Semester 1996	August 1, 1995	September 1995

Filing Period Duration

San Diego State University accepts applications until capacities are reached. Impacted programs are open only one month for each semester (November for fall; August for spring). Undergraduate applicants to nonimpacted programs are strongly encouraged to apply during the first month as capacities may be reached after that date. Applicants for graduate programs are also encouraged to apply early, but capacities are usually reached at a later date for these programs.

Application Acknowledgment

You may expect to receive an acknowledgment from your first choice campus within four weeks of filing the application. A notice that space has been reserved for you will also include a request that you submit the records necessary for the campus to evaluate your qualifications. You may be assured of admission if the evaluation of your qualifications indicates that you meet admission requirements. Such a notice is not transferable to another term or to another campus.

Filing of Records

File Official Transcripts. The applicant must file the following official transcripts with the Admissions and Records Office:

1. Transcript from high school of graduation or last in attendance (not required of the graduate student who holds a bachelor's degree from an accredited institution, but is required of the student who holds a bachelor's degree from a nonaccredited institution).
2. Transcripts from EACH college attended (including extension, correspondence, summer session, or evening courses), even if no courses were completed. Graduate students must file transcripts *in duplicate* if they plan to enter a master's degree or credential program.
3. Photostat or true copy of the military separation form DD-214 (or equivalent) if applicant has had active military service. (Not required of graduate students.)

A transcript will be considered official and accepted to meet the regulations governing admission only if forwarded directly to San Diego State University by the institution attended. All records or transcripts received by the university become the property of the university and **will not be released nor will copies be made**.

Note: The sooner all necessary documents are received the sooner your file will be evaluated for admission eligibility. **All needed documents, for international applicants must be on file no later than July 1 for the fall semester or December 1 for the spring semester.**

Undergraduate Admission Requirements

Freshman Requirements

To be eligible for admission to San Diego State University, you

1. must be a high school graduate,
2. have a qualifiable eligibility index (See "Eligibility Index," below), and
3. have completed with grades of C or better each of the courses in the comprehensive pattern of college preparatory subject requirements (See "Subject Requirements," following page). Courses must be completed prior to the first enrollment at San Diego State University.

Eligibility Index

The eligibility index is the combination of your high school grade point average and your score on either the American College Test (ACT) or the Scholastic Aptitude Test (SAT I). Your grade point average is based on grades earned during your final three years of high school (excluding physical education and military science) and bonus points for approved honors courses.

Up to eight semester honors courses taken in the last two years of high school can be accepted. Each unit of A in an honors course will receive a total of 5 points; B, 4 points; and C, 3 points.

You can calculate your eligibility index by multiplying your grade point average by 800 and adding your total score on the SAT I. Or, if you took the ACT, multiply your grade point average by 200 and add ten times the composite score from the ACT. If you are a California high school graduate (or a legal resident of California for tuition purposes), you need a minimum index of 2900 using the SAT I or 694 using the ACT. (See "Eligibility Index Table for California High School Graduates," following page, for combinations of test scores and averages required.) If you neither graduated from a California high school nor are a resident of California for tuition purposes, you need a minimum index of 3502 (SAT I) or 842 (ACT).

Applicants with grade point averages of 3.0 or above (3.61 for non-residents) are exempt from the test requirement. However, you are urged to take the SAT I or ACT since test results are used for advising and placement purposes.

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

You will qualify for regular admission when the University verifies that you have a qualifying eligibility index and will have completed the comprehensive pattern of college preparatory subjects and, if applying to an impacted program, meet supplementary criteria.

Subject Requirements

San Diego State University requires that first-time freshman applicants complete, with grades of C or better, 15 units in a comprehensive pattern of college preparatory courses. A "unit" is one year of study in high school.

English: 4 years.

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

US History or US 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/theatre, or music.

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

San Diego State University will accept completion of the University of California subject requirements in place of the subject requirements listed above. Subject requirements for University of California are: 4 years English, 3 years mathematics, 1 year U.S. history or U.S. history and government, 1 year social science, 2 years laboratory science, 2 years foreign language, and 2 years approved electives.

Subject Requirement Substitution for Students with Disabilities. Applicants with disabilities are encouraged to complete college preparatory course requirements if at all possible. If you are judged unable to fulfill a specific course requirement because of your disability, alternate college preparatory courses may be substituted for specific subject requirements. Substitutions may be authorized on an individual basis after review and recommendation by your academic adviser or guidance counselor in consultation with the director of a CSU disabled student services program. You should be aware that failure to complete courses required for admission may limit your later enrollment in certain majors, particularly those involving mathematics. For further information and substitution forms, please call the director of disabled student services at your nearest CSU campus.

Foreign Language Subject Requirement

The foreign language subject requirement may be satisfied by 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 your school counselor or any CSU campus admissions or relations with schools office for further information.

Eligibility Index Table for California High School Graduates or Residents of California
Reflects recentering of SAT I tests taken in April 1995 and thereafter.

GPA	ACT Score	SAT Score	GPA	ACT Score	SAT Score	GPA	ACT Score	SAT Score
3.00 and above qualifies with any score.			2.66	17	780	2.32	23	1050
2.99	10	510	2.65	17	780	2.31	24	1060
2.98	10	520	2.64	17	790	2.30	24	1060
2.97	10	530	2.63	17	800	2.29	24	1070
2.96	11	540	2.62	17	810	2.28	24	1080
2.95	11	540	2.61	18	820	2.27	24	1090
2.94	11	550	2.60	18	820	2.26	25	1100
2.93	11	560	2.59	18	830	2.25	25	1100
2.92	11	570	2.58	18	840	2.24	25	1110
2.91	12	580	2.57	18	850	2.23	25	1120
2.90	12	580	2.56	19	860	2.22	25	1130
2.89	12	590	2.55	19	860	2.21	26	1140
2.88	12	600	2.54	19	870	2.20	26	1140
2.87	12	610	2.53	19	880	2.19	26	1150
2.86	13	620	2.52	19	890	2.18	26	1160
2.85	13	620	2.51	20	900	2.17	26	1170
2.84	13	630	2.50	20	900	2.16	27	1180
2.83	13	640	2.49	20	910	2.15	27	1180
2.82	13	650	2.48	20	920	2.14	27	1190
2.81	14	660	2.47	20	930	2.13	27	1200
2.80	14	660	2.46	21	940	2.12	27	1210
2.79	14	670	2.45	21	940	2.11	28	1220
2.78	14	680	2.44	21	950	2.10	28	1220
2.77	14	690	2.43	21	960	2.09	28	1230
2.76	15	700	2.42	21	970	2.08	28	1240
2.75	15	700	2.41	22	980	2.07	28	1250
2.74	15	710	2.40	22	980	2.06	29	1260
2.73	15	720	2.39	22	990	2.05	29	1260
2.72	15	730	2.38	22	1000	2.04	29	1270
2.71	16	740	2.37	22	1010	2.03	29	1280
2.70	16	740	2.36	23	1020	2.02	29	1290
2.69	16	750	2.35	23	1020	2.01	30	1300
2.68	16	760	2.34	23	1030	2.00	30	1300
2.67	16	770	2.33	23	1040			

Below 2.00 does not qualify for regular admission.

Provisional Admission

San Diego State University may provisionally admit first-time freshman applicants based on their academic preparation completed through the junior year of high school and that planned for the senior year. San Diego State University 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.

High School Students

Students still enrolled in high school will be considered for enrollment in certain special courses if recommended by the principal and the appropriate campus department chair and if preparation is equivalent to that required of eligible California high school graduates. Such admission is only for a given course and does not constitute the right to continued enrollment.

Transfer Requirements

You will qualify for admission as a transfer student if you 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:

1. meet the freshman admission requirements in effect for the term to which you are applying (See "Freshman Requirements," preceding page).

2. were eligible as a freshman at the time of high school graduation and have been in continuous attendance in a regionally accredited college since high school graduation; or

3. were eligible as a freshman at the time of high school graduation except for the subject requirements, have made up the missing subjects, and have been in continuous attendance in a regionally accredited college since high school graduation.

4. have completed at least 56 transferable (84 quarter) units **and** meet the requirements listed below based on high school graduation date. Nonresidents must have a 2.4 grade point average or better.

Applicants who graduated from high school **1988 or later:**

- have completed all subject requirements in effect when graduating from high school (can use both high school and college coursework, OR
- have completed at least 30 semester units of college coursework with a grade of C or better **in each course** to be selected from courses in English, arts and humanities, social science, science and mathematics at a level as least equivalent to courses that meet general education requirements. The 30 units must include all of the general education requirements in communication in the English language and critical thinking (at least 9 semester units) and the requirements in mathematics/quantitative reasoning (usually 3 semester units), OR
- the Intersegmental General Education Transfer Curriculum (IGETC) requirements in English communication and mathematical concepts and quantitative reasoning.

Applicants who graduated from high school **prior to 1988:**

- have completed 4 years of high school English and 2 years of high school math, with grades of C or better, OR
- have completed baccalaureate courses with grades of C or better that meet the general education requirements in communication in the English language and mathematics/quantitative reasoning, OR
- IGETC requirements in English composition and mathematical concepts and quantitative reasoning. The course meeting either general education math requirement must be above the level of intermediate algebra.

Transferable courses are those designated for baccalaureate credit by the regionally accredited college or university offering the courses.

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

1. Complete appropriate courses with a grade of C or better in adult school or high school summer session.
2. Complete appropriate courses in college with a grade of C or better. One college course of at least three semester or four quarter units will be considered equivalent to one year of high school study.
3. Earn acceptable scores on specified examinations.
4. Applicants with 56 or more semester (84 quarter) units may complete, with a grade of C or better in each course, one of the following alternatives:

- a. **1987 or earlier high school graduates:** complete the CSU general education requirements in communication in the English language (at least 9 semester units) and mathematics (usually 3 semester units) with a C or better in each course;
- b. **1988 or later high school graduates:** complete a minimum of 30 semester (45 quarter) units, with a grade of C or better in each course, chosen from courses in arts and humanities, English, mathematics, science, and social science of a level at least equivalent to courses that meet general education requirements. Each student 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.

Please consult SDSU or any CSU campus admissions office for further information about alternative ways to satisfy the subject requirements.

Test Requirements

Freshman and transfer applicants who have fewer than 56 semester or 84 quarter units of transferable college credit must submit scores from either the Scholastic Aptitude Test of The College Board (SAT I) or the American College Test Program (ACT). If you are applying to an impacted program and are required to submit test scores, you should take the test no later than early December if applying for fall admission. Test scores are used for advising and placement purposes. You may get registration forms and the dates for either test from school or college counselors or from the SDSU Test Office. Or, you may write to or call:

The College Board (SAT I)
Registration Unit, Box 592
Princeton, New Jersey 08541
(609) 771-7588

American College Testing
Program (ACT)
Registration Unit, P.O. Box 168
Iowa City, Iowa 52240
(319) 337-1270

TOEFL Requirement

All undergraduate applicants, regardless of citizenship, who do not have at least three years of full-time study in schools at the secondary level or above where English is the principal language of instruction must present a minimum score of 550 or above on the Test of English as a Foreign Language (TOEFL).

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 all of the following 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. Part-time enrollment is permissible.
3. If there has been any college attendance in the past five years, has earned a grade point average of C or better.
4. Test results verifying completion of current San Diego State University competency requirements in mathematics and writing. Current competency requirements and minimum test scores are published in the University General Catalog and each semester's Class Schedule; the most recent published scores will be required.

Applicants seeking admission as an adult student must submit a statement of no more than two pages describing the alternate preparation which the applicant feels has prepared him or her for successful university work. The statement should also describe the applicant's educational goals and what preparation has been made to pursue these goals. Consideration for admission will be based upon a judgment as to whether the applicant is as likely to succeed as a regularly admitted freshman or transfer student.

Other Applicants

Applicants not admissible under one of the above provisions should enroll in a community college or other appropriate institution. Under unusual circumstances such applicants may be permitted to enroll. Applicants should submit a written statement to the Admissions Office describing their situation and why an exception should be made.

San Diego State University also offers a special program designed to expand educational opportunity for capable persons who, for a variety of reasons, have not previously had the opportunity. For detailed information regarding admission to this program, refer to the section of this catalog on the Educational Opportunity Program.

Systemwide Tests Required of Most New Students

The California State University system requires new students to be tested in English and mathematics after they are admitted. These are not admission tests, but a way to determine eligibility to enroll in specific courses. Students might be exempted from one or both of the tests if they have scored well on other specified tests or completed appropriate transfer courses.

English Placement Test (EPT). The CSU English Placement Test must be completed by all new non-exempt undergraduates* prior to placement in appropriate university English coursework. Exemptions from the test are given only to 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 score on the CSU English Equivalency Examination that qualifies the student "Pass for Credit" or "Exemption."
- A score of 470 or above on the Verbal section of the College Board Scholastic Aptitude Test (SAT) taken prior to March 1994.
- A score of 470 or above on the Verbal section of the College Board SAT I** Reasoning Test taken between March 1994 and March 1995. (If taken after March 1995, see note below.)
- A score of 22 or above on the ACT English Usage Test taken prior to October 1989.
- A score of 25 or above on the ACT English Test taken October 1989 and later.
- A score of 600 or above on The College Board Achievement Test** in English Composition *with essay* taken prior to January 1994.
- A score of 600 or above on the College Board SAT II** Writing Test taken between January 1994 and March 1995. (If taken after March 1995, see note below.)
- A score of 550 or above on the verbal section of the College Board SAT I** Reasoning Test taken on or after April 1, 1995. (See note below.)
- A score of 660 or above on the College Board SAT II** Writing Test taken on or after April 1, 1995. (See note below.)
- For transfer students, completion and transfer to the CSU of a college course that satisfies the General Education Breadth requirement or the Intersegmental General Education Transfer Curriculum requirement in English composition, provided such a course was completed with a grade of C or better.

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

** NOTE: The College Board SAT and Achievement Tests were replaced by SAT I and SAT II, respectively, beginning March 1994. Beginning April 1, 1995, the SAT I and SAT II exams will be scored on a new scale.

Entry-Level Mathematics (ELM) Examination. The ELM examination tests for entry level mathematics skills acquired through three years of rigorous college preparatory mathematics coursework (normally Algebra I, Algebra II, and Geometry). All new undergraduate students must take the test or be exempted from it prior to placement in appropriate university mathematics coursework. Specific policies regarding retesting and placement will be determined by San Diego State University. 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 560 or above on the mathematics section of the College Board SAT taken prior to March 1994.
- A score of 560 or above on the mathematics section of the College Board SAT I** Reasoning test OR on the College Board SAT II** Mathematics Tests Level I, II, or IIC (Calculator) taken on or after March 1, 1994. (See note below.)

- A score of 24 or above on the American College Testing Mathematics Test (Taken prior to October 1989).
- A score of 25 or above on the enhanced ACT Mathematics Test (Taken October 1989 and later).
- A score of 560 or above on the College Board Mathematics Achievement Test**, Level I or Level II taken prior to March 1994.
- For transfer students, completion and transfer to San Diego State University of a college course that satisfies the General Education — Breadth requirement or the Intersegmental General Education Transfer Curriculum requirement in Quantitative Reasoning provided the course was completed with a grade of C or better.

Failure to satisfy either of these tests, as required, before the end of the first semester of enrollment 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.

San Diego State University students with an exemption from the EPT or ELM based on a transfer course will be required to take the SDSU Writing Competency Test or the Mathematics Placement Examination.

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

** NOTE: The College Board SAT and Achievement Tests were replaced by SAT I and SAT II, respectively, beginning March 1994. Beginning April 1, 1995, the SAT I and SAT II exams will be scored on a new scale; however, the SAT scores qualifying for exemption from the ELM remain the same.

Acceptance of Transfer Courses

Courses taken at a regionally accredited college or university and designated as appropriate for baccalaureate credit by that institution will be accepted by San Diego State University for credit toward the baccalaureate degree. San Diego State University reserves the right to determine the extent to which such credit satisfies the specific and elective requirements of degree programs.

Courses completed at regionally accredited institutions not offering the baccalaureate and at special-purpose baccalaureate-granting institutions are acceptable if specifically certified by the institution or by San Diego State University as similar in level and rigor to SDSU courses.

Courses completed at institutions without regional accreditation or taken at a regionally accredited institution as part of a professional program, i.e., medical, dental, legal, veterinary, optical, etc. are not normally accepted by San Diego State University. Such courses may be accepted on an individual basis if a review by the appropriate department determines comparability to a course in the San Diego State University curriculum.

Graduate and Postbaccalaureate Admission Requirements

Admission Requirements

Graduate and postbaccalaureate applicants may apply for a degree objective, a credential or certificate objective, or may have no program objective. Depending on the objective, San Diego State University will consider an application for admission as follows:

General Requirements

The minimum requirements for admission to graduate and postbaccalaureate studies at a California State University campus are in accordance with university regulations as well as Title 5, chapter 1, subchapter 3, of the *California Code of Regulations*. Specifically, a student shall: (1) have completed a four-year college course of study and hold an acceptable baccalaureate degree from an institution

accredited by a regional accrediting association, or shall have completed equivalent academic preparation as determined by appropriate campus authorities; (2) be in good academic standing at the last college or university attended; (3) have attained a grade point average of at least 2.5 (A = 4.0) in the last 60 semester (90 quarter) units attempted (this calculation may not include lower division courses taken after award of a baccalaureate degree); and (4) satisfactorily meet the professional, personal, scholastic, and other standards for graduate study, including qualifying examinations, as appropriate campus authorities may prescribe. In unusual circumstances, a campus may make exceptions to these criteria.

All applicants seeking admission to postbaccalaureate study at San Diego State University must apply and meet the minimum requirements to be accepted in one of the following categories (consult the *Graduate Bulletin* for detailed information):

- Postbaccalaureate Unclassified.** To enroll in courses for professional or personal growth, you must be admitted as a postbaccalaureate unclassified student. By meeting the minimum requirements, you are eligible for admission as a postbaccalaureate unclassified student. Some departments may restrict enrollment of unclassified students due to heavy enrollment pressure. Admission in this status does not constitute admission to, or assurance of consideration for admission to, any graduate degree or credential program; or
- Postbaccalaureate Classified.** If you wish to enroll in a credential or certificate program, you will be required to satisfy additional professional, personal, scholastic, and other standards, including qualifying examinations, prescribed by the campus; or
- Graduate Conditionally Classified.** You may be admitted to a graduate degree program in this category if, in the opinion of appropriate campus authority, you can remedy deficiencies by additional preparation; or
- Graduate Classified.** To pursue a graduate degree, you will be required to fulfill all of the professional, personal, scholastic, and other standards, including qualifying examinations, prescribed by the campus.

TOEFL 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 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). Individual degree programs may prescribe a higher minimum score. Applicants must also submit a score for the Test of Written English (TWE). Individual degree programs may use the score on the TWE as an admission criterion or as an advising tool to identify students who may need further training in English.

Second Bachelor's Degree

Second bachelor's degrees are awarded by most departments. Currently, Business Administration, Liberal Studies—Emphasis in Three Departments, Mexican American Studies, and Telecommunications and Film do not participate in the second bachelor's degree program. A student wishing to earn a second bachelor's degree must apply for admission to San Diego State University during the filing period for undergraduate applicants, unless already enrolled at the University as a postbaccalaureate student. In addition, applicants to the impacted majors (criminal justice administration, international business (upper division), journalism (upper division), nursing, and telecommunications and film) must apply during the first month of the undergraduate application filing period. Upon receipt of the admission application, students will be sent a separate application for a second bachelor's degree.

Admission to a second bachelor's degree program is based on a review of the second bachelor's degree application and the applicant's academic record. Applicants must be eligible for admission as

a postbaccalaureate student, meet all undergraduate admission subject requirements, show strong promise of success in the new field, and have a clearly indicated change in educational objective.

Recent legislation requires that duplicate degree tuition will be charged if a student has a second bachelor's degree objective that is equal to, or lesser than their first master's degree. The tuition is \$150 per unit. Refer to Schedule of Fees section for additional information on duplicate degree tuition.

Classified graduate students are not eligible to apply for a second bachelor's degree. Credit earned while a second bachelor's candidate may not be applied toward an advanced degree at a later date. Candidates for a second bachelor's degree are ineligible to enroll in 600-, 700-, 800-, and 900-numbered courses.

To receive a second bachelor's degree, the student must complete a minimum of 30 postbaccalaureate units in residence with a minimum grade point average of 2.0; at least 15 units must be upper division in the new major. Up to six upper division units from the previous major may be used in the new major, provided the student completed the same number of units above minimum requirements for the bachelor's degree, including but not limited to General Education, major, upper division writing, and foreign language if required by the major. Students are subject to undergraduate policies and procedures, including rules governing deadlines, course forgiveness, and academic probation and disqualification.

The second bachelor's degree is not granted automatically. When eligible for graduation, students must submit an application for graduation with the Office of Admissions and Records. The Class Schedule each semester specifies the exact dates for filing. (Refer to the section on Application for Graduation in this catalog for additional information and regulations.)

For additional information and second bachelor's degree applications, contact the Office of Admissions and Records.

Second Major for SDSU Graduates

The second major is available to San Diego State University graduates in some departments and programs. Currently, Business Administration, International Business, Liberal Studies—Emphasis in Three Departments, Mexican American Studies, and Telecommunications and Film do not participate. Students not currently enrolled must apply for readmission to the University during the published filing period for undergraduate applicants to the intended second major.

Upon receipt of the admission application, students will be sent a separate application for a second major. Admission to the second major program is based on the following criteria: a 2.50 grade point average in the last 60 semester units of upper division courses attempted, prior to completion of at least nine units in the second major with an overall major GPA of 2.50 or better, and approval of the second major department.

A second major is an undergraduate objective. Second major students are subject to all undergraduate policies and procedures, including rules governing deadlines, course forgiveness, and academic probation and disqualification. No course numbered 600 or 700 may be used to fulfill a second major requirement, and no credit earned toward a second major may be applied toward an advanced degree. Students may pursue a second major and a teaching credential simultaneously.

To receive a second major, students must meet with the major adviser and develop a major outline detailing requirements for the second major. These include a minimum of 12 upper division units in the new major after approval in the program, a minimum grade point average of 2.0 in the major, and satisfaction of all current catalog requirements associated with the major including foreign language and upper division writing requirements where appropriate. Acceptance of second major courses completed during the first degree is subject to department review and approval. If taken some time ago, students may be required to take more than the minimum number of units needed in the discipline.

Awarding of the second major is not automatic. When students have completed all requirements on the major outline, the major

adviser must review all records and notify the Office of Admissions and Records to add the new major. Notation of the second major is made to the postbaccalaureate record. Second major students are not eligible for honors for second major work or a new diploma.

For additional information and second major applications, contact the Office of Admissions and Records.

International (Foreign) Student Admission Requirements

San Diego State University must assess the academic preparation of foreign students. For this purpose, "foreign students" include those who hold US visas as students, exchange visitors, or in other non-immigrant classifications. SDSU uses separate requirements and application filing dates in the admission of foreign students.

Applicants for admission as either graduates or undergraduates whose education has been in a foreign country must file an application for admission, official certificates, and detailed transcripts of record from each secondary school and collegiate institution attended. All needed documents, transcripts, and test scores must be received by the Office of Admissions and Records no later than July 1 for the fall semester or December 1 for the spring semester. 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 San Diego State University.

All applicants whose major education has been in a language other than English must score 550 or more on the Test of English as a Foreign Language (TOEFL). This test is administered in most foreign countries. The University must receive official test scores before admission can be granted. Information as to the time and place at which this test is given may be obtained by writing to the Educational Testing Service (TOEFL), Princeton, New Jersey, 08540, USA.

Upon arrival at San Diego State University, further tests of English may be given for the purpose of placing students in an English language program commensurate with their linguistic ability in English and to assist student advisers in planning an appropriate course of study. Depending upon their performance on the placement test and their academic background, students may be required to enroll in one or more English language courses during their first year at San Diego State University. Foreign students admitted to the University will be subject to the same competency and placement examinations and standards as govern the rest of the student population.

Insurance Requirement: Effective August 1, 1995, as a condition of receiving an I-20 or IAP-66 form, all F-1 and J-1 visa applicants must agree to obtain and maintain health insurance as a condition of registration and continued enrollment in the California State University. Such insurance must be in amounts as specified by the United States Information Agency (USIA) and NAFSA: Association of International Educators. The campus President or designee shall determine which insurance policies meet these criteria. Further information may be obtained from the Office of International Student Services.

American Language Institute: Prior to admission to San Diego State University, if English instruction is needed, students may enroll in the American Language Institute. The American Language Institute (ALI) offers preparation in the English language reading, writing, and listening skills necessary for university success. For those students who are enrolling in the American Language Institute, a program called conditional admission is available. It is for those students who require acceptance to a university in order to obtain a passport, a U.S. Visa, or government sponsorship. The program is offered to students who do not have an adequate command of English or the required TOEFL (Test of English as a Foreign Language) score to qualify for admission to the University. After transcripts of their academic work have been evaluated by SDSU staff, students may receive an official letter of conditional admission which states that the student has met all University requirements *except* English language proficiency and may enter the University after appropriate TOEFL scores and training at the American Language Institute.

Arrangements for housing should be completed well in advance of the student's arrival on the campus. Detailed information regarding housing may be obtained from the Housing and Residential Life Office, San Diego State University. Scholarship aid for entering students is limited; no scholarships are specifically reserved for students from another country. Further information regarding scholarships will be found in the second of this catalog on Financial Aid and Scholarships.

Upon arrival at San Diego State University the students should contact the Office of International Student Services.

Admission of Visiting Students Intrasystem Visitor Enrollment

Currently enrolled students at San Diego State University have the opportunity to register at other universities in The California State University system for one term. Students choosing to visit another campus will be on a leave of absence from San Diego State for the one term.

Eligibility Requirements

Undergraduate: You must have completed at least one term at San Diego State University as a matriculated student and earned at least twelve units. You must have a grade point average of 2.0 or better in all work completed at San Diego State University, be in good standing, and be eligible to register under continuing status at San Diego State University.

Enrollment Conditions

Approval will be for one term only and is subject to space availability and enrollment priority policies of the host campus. To remain beyond the term in which you are a visitor, a regular admission application must be filed. Visitor status will not be approved if the terms overlap on home and host campuses. Concurrent enrollment at another CSU campus is not possible while in visitor status. Financial aid is available to visitors only through the home campus and students eligible for veterans, rehabilitation, social security and other federal, state or county benefits must secure eligibility certification through the home campus. A record of credit earned at the host campus will automatically be sent to San Diego State University. Evidence of completion of course prerequisites may be required at time of enrollment (i.e., personal transcript copy or grade reports).

Procedures

You must complete an application and submit it to the Office of Admissions and Records at San Diego State University. San Diego State University completes Part II and forwards to host campus if approved, or returns to student if disapproved. Host campus provides registration instructions if application is accepted, or returns application with explanation if it cannot be accepted.

Registration

San Diego State University students register by the touch tone telephone registration system (RegLine). On-campus registration is not be conducted. The Class Schedule and Student Information Handbook, issued each semester and obtainable at the Campus Store before the registration period, contains specific information on registration, the courses offered for the term, and a listing of the fees required for enrollment. Students will not be permitted to access RegLine until fees are paid. Payment of fees by itself does not constitute registration. **A student is considered registered when: 1) fees have been paid, and 2) at least one course has been added prior to the first day of classes.**

Late registration is allowed during the first two weeks of the semester. Students wishing to late register must pay registration fees plus a \$20.00 late fee before the end of the second week of the semester. After receiving an add code from the instructor of the course the student wants to add, the student calls RegLine to officially register.

Students who have not added at least one class by the beginning of the fourth week of classes are not registered, and may not add courses later in the semester.

Improper Registration in Graduate Courses. The unauthorized registration of undergraduate students in all courses numbered in the 600 and 700 series, and the registration of graduate students who have not met the stated prerequisites for Course 799A, Thesis, at the time of registration, may be canceled.

Determination of Residence for Nonresident Tuition Purposes

The Office of Admissions and Records determines the residence status of all new, returning, and continuing students for nonresident tuition purposes. Responses on the Application for Admission and, if necessary, other documentation 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 *California Education Code* Sections 68000-68090, 68121, 68123, 68124, and 89705-89707.5, 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 and Records 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 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, an 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 an unmarried minor who has a parent living cannot be changed by the minor's own act, by the appointment of a legal guardian or by the relinquishment of a parent's right of control.

A married person may establish his or her residence independent of 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.

The residence determination dates are September 20 for fall and January 25 for spring.

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 been under the continuous direct care and control of an adult or adults, 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, if the student is continuously enrolled.

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. Effective January 1, 1994, this exception continues until the military personnel has resided in the state the minimum time necessary to become a resident.

6. Dependent children of a parent 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 attendance 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 one 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, California 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 Admissions and Records 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 change 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 determination date.

Academic Advising

Academic advising is organized according to major. All students must comply with advising requirements established for their major(s) and described with other major requirements in the Courses and Curricula section of this catalog. For additional help, students with a declared major or interest in a particular major should consult with the advising center or assistant dean for student affairs in the college of that major. Students who are undecided about their majors should consult with the University Advising Center. Besides the advising centers listed below, each department and academic program maintains advisers who may be consulted on specific questions related to their programs. These departmental and program advisers may be reached through any of the college advising centers listed below or through the University Advising Center. Most advising centers are open Monday through Friday between 9:00 a.m. and 4:00 p.m. Services are available either by appointment or on a drop-in basis.

College of Arts and Letters Advising Center (Nasatir Hall, Room 235)

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Africa and Middle East Studies	Japanese
Africana Studies	Judaic Studies
American Indian Studies	Latin American Studies
American Studies	Linguistics and Oriental Languages
Anthropology	Mexican American Studies
Asian Studies	Philosophy
Classics and Humanities	Political Science
Comparative Literature	Religious Studies
Economics	Russian and East European Studies
English	Social Science
European Studies	Sociology
French and Italian	Spanish and Portuguese
Geography	Urban Studies
German and Russian	Women's Studies
History	
International Business	
International Security and Conflict Resolution	

College of Business Administration Business Advising Center (Business Administration, Room 448)

Accounting	Management
Finance	Marketing
Financial Services	Operations Management
Information Systems	Real Estate

College of Education/Center for Careers in Education (Education, Room 100)

Bilingual Education	Ph.D. in Education
Counseling	Reading
Educational Administration	Rehabilitation Counseling
Educational Technology	School Counseling
Elementary Teaching	School Psychology
Marriage, Family, and Child Counseling	Secondary Teaching
Multicultural Education	Special Education

College of Engineering Advising Center (College of Engineering, Room 426B)

Aerospace Engineering	Electrical Engineering
Civil Engineering	Mechanical Engineering

College of Health and Human Services Advising Center (Hepner Hall, Room 124)

Communicative Disorders	Nursing
Community Health Education	Public Health
Gerontology	Social Work

College of Professional Studies and Fine Arts (Professional Studies and Fine Arts, Room 212)

Aerospace Studies	Nutrition
Art	Physical Education
Child and Family Development	Public Administration and Urban Studies
Dance	Recreation, Parks and Tourism
Drama	Speech Communication
Journalism	Telecommunications and Film
Military Science	Urban Studies
Music	
Naval Science	

College of Sciences Advising Center (Life Sciences, Room 105)

Astronomy	Geological Sciences	Physical Science
Biology	Mathematical Sciences	Physics
Chemistry	Microbiology	Psychology
Computer Science		

For preprofessional programs see next page.

University Advising Center Student Services Building, Room 1641

The University Advising Center (a) assists currently enrolled and prospective students with problems and planning about degree requirements, academic policies, and academic procedures; (b) counsels students with undeclared majors seeking an educational direction compatible with their interests, goals, and individual circumstances; (c) acquaints students with other campus services appropriate to their individual needs; and (d) provides advising for the Liberal Studies—Emphasis in Education major. The Center's hours are 9:00 a.m. to 6:00 p.m., Monday through Thursday, and 10:00 a.m. to 4:00 p.m. on Friday.

Imperial Valley Campus Advising

It is recommended that Imperial Valley Campus students see an adviser prior to registration each semester.

The following advisers correspond to the various majors and programs:

Chavella Aguilar (357-5506)	Liberal Studies Majors
Cynthia Flores (357-5503)	Criminal Justice, Psychology and Public Administration Majors
José Romo (357-5523)	Social Science Majors
Kathy Russum (357-5517)	English, International Business and Spanish Majors; and Information regarding the California Teaching Credential Program

Advising for Graduate Programs, Teaching Credential Programs, and Preprofessional Programs

General requirements for the master's and doctoral degrees.

Advisement concerning general requirements (except for the major) is available from the Graduate Division in room 220 of the Administration Building. Office hours are from 10:00 a.m. to 4:30 p.m. on Monday through Friday. A departmental graduate adviser is available in all programs offering graduate degrees.

Teaching credential requirements. Advising for the Multiple Subject (elementary) and the Single Subject (secondary) teaching credential programs is available through the Center for Careers in Education, ED-100, 594-5964. Group advising sessions are regularly scheduled for students interested in either program. Students who are interested in the Spanish bilingual emphasis programs for the Multiple Subject or Single Subject teaching credentials can secure information from the Department of Policy Studies in Language and Cross-Cultural Education, ED-152, 594-5155. Students seeking the single Subject credential with or without the bilingual emphasis should consult also with the credential adviser in their academic major department for specific course requirements in the subject area.

Preprofessional Advising

Advisement for students planning to attend professional schools is available for the following programs:

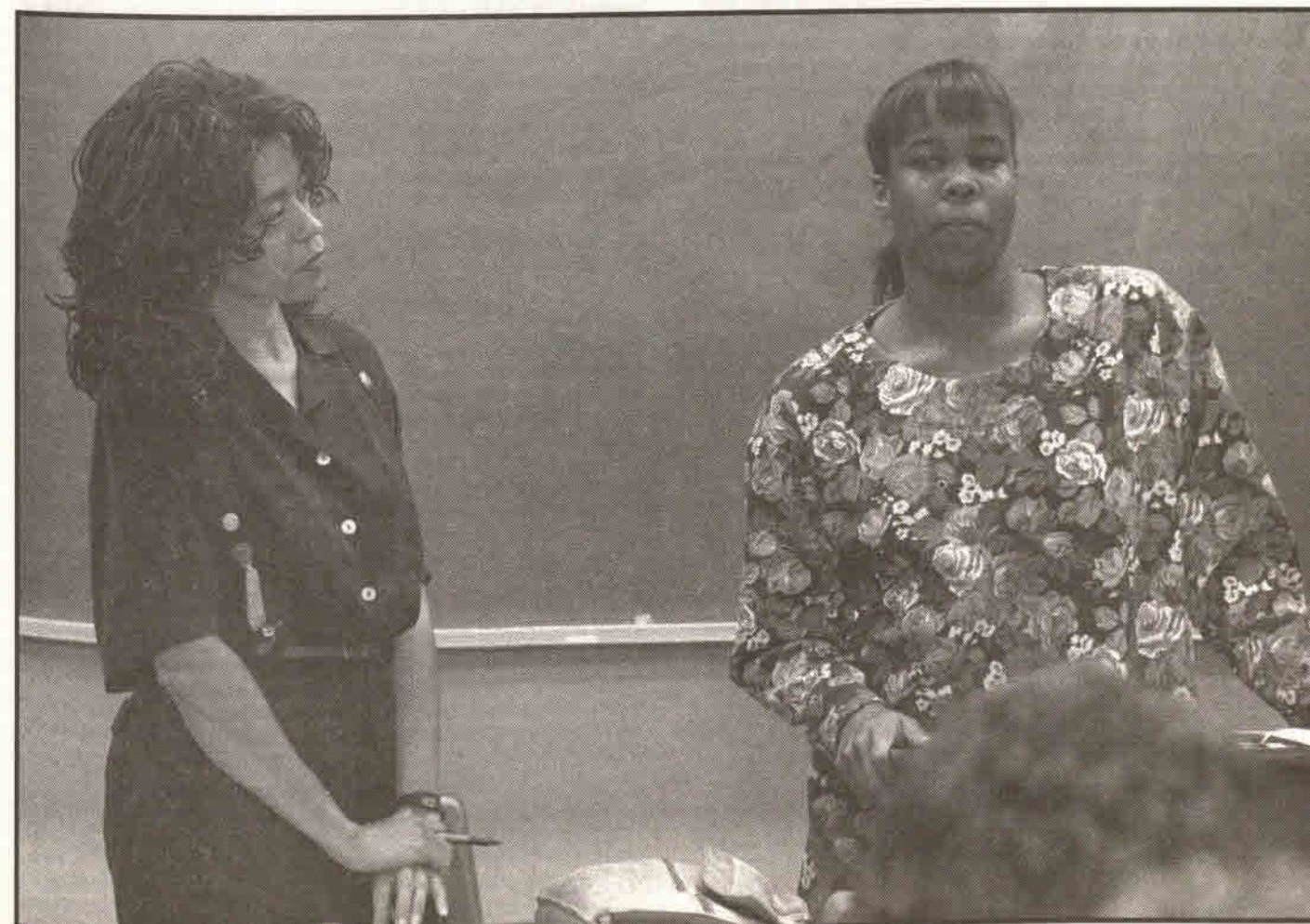
Pre dentistry	Life Sciences, Room 204
Pre education	University Advising Center,
	Student Services Building, Room 1641
Prelaw*	Nasatir Hall, Room 131
Pre medicine	Life Sciences, Room 204
Pre physical therapy	Physical Education, Room 331
Pre veterinary medicine	Life Sciences, Room 204

* Advisers in prelaw are not available during the summer months.

Additional Advisory Services Provided Through the Following Programs

New student orientation. As a new semester approaches, all incoming students are advised to attend a one-day orientation program called Academic Information Day. Academic advising is an important part of each program, including General Education and graduation requirements, group meetings with the assistant deans from the various colleges, and completion of the course registration packet. Questions concerning orientation can be directed to the Student Resource Center; telephone 594-5933 or 594-5221.

EOP students are required to attend the EOP orientation program known as EOP-START. Attendance at an Academic Information Day or CONTACT program is strongly encouraged even though it does *not* meet the EOP orientation requirement. Call EOP at 594-6298 for additional information.



General Regulations

Student Responsibility for Catalog Information

Students are held individually responsible for the information contained in this catalog. The requirements listed in the "Graduation Requirements" section of the catalog are those requirements which the University will make every effort to preserve for students subject to this catalog. All other parts of the catalog, including this "General Regulations" section, are subject to change from year to year as University rules, policies, and curricula change. Failure to keep informed of such changes will not exempt students from whatever penalties they may incur.

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 San Diego State University. Further, it is not possible in a publication of this size to include all of the rules, policies, and other information that pertain to the student, San Diego State University, and The California State University. More current or complete information may be obtained from the appropriate department, school, or administrative office. Each semester, the Class Schedule and Student Information Handbook outlines changes in academic policy and procedure and current deadlines which are of importance to students.

Nothing in this catalog shall be construed as, operate as, or have the effect of an abridgment 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 San Diego State University. The Trustees, the Chancellor, and the President are authorized by law to adopt, amend, or repeal rules and policies that apply to students. This catalog does not constitute a contract or the terms and conditions of a contract between the student and San Diego State University or The California State University. The relationship of the student to San Diego State University is one governed by statute, rules, and policy adopted by the Legislature, the Trustees, the Chancellor, the President and their duly authorized designees.

Privacy Rights of Students in Education Records

The federal Family Educational 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 student 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 Affairs. 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 receiving information from the record; (4) policies for reviewing and expunging records; (5) the access rights of students; (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" Street, 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, 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 be released. Students are given an opportunity to restrict the release of "directory information" about themselves each semester.

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; to other institutions to which the student is transferring).

Nondiscrimination Policy

The California State University does not discriminate on the basis of race, color, national origin, sex, physical handicap or sexual orientation in the education programs or activities it conducts.

San Diego State University prohibits discrimination and harassment on the basis of race, religion, color, sex, age, handicap, marital status, sexual orientation, and national origin. Students may file a complaint alleging violation of this policy. Detailed procedures for filing a complaint are available in the Office of the Ombudsman.

Disability

The California State University does not discriminate on the basis of disability 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 Americans with Disabilities Act (1990), and the regulations adopted thereunder prohibit such discrimination. The Office of Student Affairs has been designated to coordinate the efforts of San Diego State University to comply with the Acts in their implementing regulations. Inquiries concerning compliance may be addressed to this office at AD-231; telephone 594-5211.

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. Inquiries concerning the application of Title

VI to program activities of San Diego State University may be referred to the Affirmative Action Officer, ED-156, 594-6464.

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 San Diego State University. Such programs and activities include admission of students and employment. Inquiries concerning the application of Title IX to programs and activities of San Diego State University may be referred to the Affirmative Action Officer (594-6464), the campus officer assigned the administrative responsibility of reviewing such matters, or to the Regional Director, Office for Civil Rights, Region 9, 220 Main Street, 10th Floor, San Francisco, California 94105.

The California State University is committed to providing equal opportunities to men and women CSU students in all campus programs, including intercollegiate athletics.

Grades

Definition of Grades for Undergraduate Students

Grades and grade points per unit used in reporting are as follows: Grade of **A** (outstanding achievement; available only for the highest accomplishment), 4 points; **B** (praiseworthy performance; definitely above average), 3 points; **C** (average; awarded for satisfactory performance; the most common undergraduate grade), 2 points; **D** (minimally passing; less than the typical undergraduate achievement), 1 point; **F** (failing), 0 points; **SP** (satisfactory progress), not counted in the grade point average; **W** (withdrawal), not counted in the grade point average; **AU** (audit), no credit earned and not counted in the grade point average; **Cr** (credit), signifying units earned, but not counted in the grade point average; **NC** (no credit), no credit earned and not counted in the grade point average; **I** (authorized incomplete), no credit earned and not counted in the grade point average until one calendar year has expired at which time it will count as an "F" for grade point average computation; **U** (unauthorized incomplete), counted as "F" for grade point average computation.

Definition of Grades for Graduate Students

Grades and grade points per unit used in reporting are as follows: Grade of **A** (outstanding achievement; available for the highest accomplishment), 4 points; **B** (average; awarded for satisfactory performance), 3 points; **C** (minimally passing), 2 points; **D** (unacceptable for graduate credit, course must be repeated), 1 point; **F** (failing), 0 points; **SP** (satisfactory progress), not counted in the grade point average; **W** (withdrawal), not counted in the grade point average; **AU** (audit), no credit earned and not counted in the grade point average; **Cr** (credit), signifying units earned, but not counted in the grade point average; **NC** (no credit), no credit earned and not counted in the grade point average; **I** (authorized incomplete), no credit earned and not counted in the grade point average until one calendar year has expired at which time it will count as an "F" for grade point average computation; **U** (unauthorized incomplete), counted as "F" for grade point average computation.

Plus/Minus Grading

A plus/minus grading system is utilized at San Diego State University. Plus/minus grading is not mandatory but is utilized at the discretion of the individual instructor. The grades of A+, F+ and F- are not issued. The decimal values of plus and/or minus grades are utilized in the calculation of grade point averages as follows:

A = 4.0	C+ = 2.3	D- = 0.7
A- = 3.7	C = 2.0	F = 0
B+ = 3.3	C- = 1.7	U = 0
B = 3.0	D+ = 1.3	I = 0 (when counting as an "F")
B- = 2.7	D = 1.0	

Faculty members use all grades from A through F to distinguish among levels of academic accomplishment. The grade for average undergraduate achievement is C.

Satisfactory Progress Grade—"SP"

The "SP" symbol is used in connection with courses that extend beyond one academic term. It indicates that work is in progress and has been evaluated and found to be satisfactory to date, but that assignment of a precise grade must await completion of additional work. Work is to be completed within a stipulated time period not to exceed one year except for graduate thesis (799A) or dissertation (899). Failure to complete the assigned work within one calendar year except for courses 799A, 899, General Mathematics Studies 90A, 99A, and Rhetoric and Writing 92A, 94, 97A will result in the course being computed into the grade point average as an "F" (or a "NC" if the course was taken for a credit/no credit grade).

Withdrawal Grade—"W"

The symbol "W" indicates that the student was permitted to drop a course after the first four weeks of instruction because of a verified serious and compelling reason and has obtained the signature of the instructor and the approval of the dean or designee of the college in which the class is located. After the fourth week, the grade of "W" will appear on the student's permanent record for courses on which an official drop has been approved.

Dropping a class after the end of the tenth day of instruction and prior to the last three weeks of instruction is permissible only for verified serious and compelling reasons. Permission to drop a class during this period is granted only with the signature of the instructor, who indicates the student's grade status in the class, and the approval of the dean or designee of the college in which the class is located. Students wishing to withdraw from all classes during this period must obtain the signature of each instructor and the approval of the dean or designee of the college of the student's major.

Students are not permitted to drop a class during the final three weeks of instruction, except in cases such as accident or serious illness where the cause of dropping the class is due to circumstances clearly beyond the student's control and the assignment of an incomplete is not practicable. All such requests must be accompanied by appropriate verification. Ordinarily, withdrawals in this category will involve total withdrawal from the University, except that credit, or an incomplete, may be assigned for courses in which sufficient work has been completed to permit an evaluation to be made. Requests to withdraw under such circumstances must be signed by each instructor, who indicates the student's grade status in the class, and approved by the dean or designee of the college of the student's major.

After the last day of the semester, a student who wishes to change assigned grades to "W" grades must request to withdraw from the full semester's work; no requests for individual classes will be accepted. Such requests may be granted only in verified cases such as accident or serious illness where the cause for substandard performance was due to circumstances clearly beyond the student's control. Only those retroactive changes from an assigned grade to a "W" which are approved by the instructor who assigned the original grade will be made, except that (a) the dean or designee of the college of the student's major may authorize the change of "U" to "W," and (b) department chairs shall act on behalf of instructors no longer affiliated with the University.

Auditing—"AU"

Enrollment as an auditor is subject to permission of the instructor, provided that enrollment in a course as an auditor shall be permitted only after students otherwise eligible to enroll on a credit basis have had an opportunity to do so. Auditors are subject to the same fee structure as credit students and regular class attendance is expected. Failure to meet required class attendance may result in an administrative drop of the course. To enroll as an auditor, obtain the **Change to Audit Grade** form from the Office of Admissions and Records. Obtain instructor approval and return the completed form on or before the fifteenth day of instruction to the Office of Admissions and Records. Once enrolled as an auditor, a student may not change to credit status unless such a change is requested prior to the end of the fifteenth day of instruction. A student who is enrolled for credit may not change to audit after the end of the fifteenth day of instruction.

Credit/No Credit (Undergraduate Student Option) – "Cr/NC"

An undergraduate student may elect to be graded credit/no credit in particular courses, subject to the following conditions:

1. Upper division courses graded credit/no credit (Cr/NC), whether taken at this or at another institution, may not be used to satisfy requirements for the student's major or minor except for those courses identified in the course listing as graded "Cr/NC."
2. Courses graded credit/no credit may not be used to satisfy the Communication and Analytical Reasoning section of General Education.
3. No more than 15 units graded credit/no credit may be offered in satisfaction of the total units required in a bachelor's degree program, except that all units accepted as transfer credit from another institution at the time of the student's admission may be used. If 15 or more units graded credit/no credit are transferred, the student may offer no additional courses graded credit/no credit to satisfy total units required for a bachelor's degree. Exceptions to this rule will be made only if a student is required to take an SDSU course on a credit/no credit basis.

4. Units for courses required for graduation which are offered for Cr/NC only will not be counted as part of the 15 elective units of Cr/NC allowed.

5. If for any reason (change of major or minor or transfer from another institution) upper division courses graded credit/no credit are offered to satisfy requirements in the major, the student may be required by the major department to pass competency examinations at an acceptable level or take prescribed alternate courses before being allowed to continue in the major.

6. Change in grading basis may be made by calling RegLine (619-594-7800) on or before the fifteenth day of instruction. No changes in grading basis are permitted after that date.

7. A grade of "Credit" is awarded for work equivalent to all grades which earn 2.0 or more grade points (A through C). "No Credit" is awarded for work equivalent to all grades which earn less than 2.0 grade points (C– through F).

8. The only courses which may be repeated with a credit/no credit option are those in which the student previously received a grade of "No Credit." If a course previously taken for a grade is repeated for a grade of "Credit," the original grade will continue to be used in computation of the grade point average.

NOTE: "NC" is not calculated in the grade point average at San Diego State University. However, some institutions, particularly for graduate admissions, calculate an "NC" as an "F."

Authorized Incomplete Grade – "I"

The symbol "I" (incomplete authorized) indicates 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. The conditions for removal of the Incomplete shall be reduced to writing by the instructor and given to the student with a copy placed on file with the department chair until the Incomplete is removed or the time limit for removal has passed. A final grade is assigned when the work agreed upon has been completed and evaluated. An Incomplete shall not be assigned when the only way the student could make up the work would be to attend a major portion of the class when it is next offered.

Contract forms for Incompletes are available at department offices.

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 within one calendar year will result in an Incomplete being computed into the grade point average as an "F" (or a "NC" if the course has been taken Cr/NC). After one calendar year, the only way a student may eliminate that grade from the grade point calculation is to repeat the course and file

a petition for course "forgiveness" (see "Repeated Courses" below). In any case, because the student record must provide an accurate and complete record of the student's academic history, the notation of "Incomplete" will remain on the record.

Unauthorized Incomplete Grade – "U"

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, the number of completed assignments or course activities or both were insufficient to make normal evaluation of academic performance possible. For purposes of grade point average computation, this symbol is equivalent to an "F."

If a student attends a portion of a course and then, after receiving failing grades, stops attending without officially withdrawing, that student should normally receive a final grade of "F" and not "U."

Computation of Grade Point Average

To compute the grade point average, the total number of grade points earned is divided by the number of units attempted. Units earned with a Cr (Credit) are not included in the computation. A grade of "I" (authorized incomplete) is not counted in the grade point computation until one calendar year has expired, at which time it will count as an "F." The minimum GPA for a bachelor's degree is 2.0 (C); in other words, the student must have earned at least twice as many grade points as units attempted.

Repeated Courses

Course "Forgiveness" and Course Repeat Policy. Undergraduate students are subject to the following conditions and requirements. Students who receive a grade of C- or lower (fewer than 2.0 grade points per unit) may request that the course repeat policy for grade forgiveness be applied to that course. **The course repeat policy can be applied to as many as four repetitions of lower division courses and one upper division course taken at San Diego State University**, except in cases where enrollment is restricted and the student no longer qualifies for admission to a course.

1. In the semester in which students are repeating a course for which they want an earlier grade "forgiven," **they must notify Admissions and Records before the end of the add period (or before noon of the third day of Winter or Summer Session classes)** that they want the "forgiveness" policy applied to that course. While the original grade(s) will remain on students' records, the grade earned in the repeat, whether higher or lower than the original grade, will be used in place of the earlier grade in calculation of grade point averages.

2. A course may be repeated only twice for grade forgiveness. Courses repeated more than once including repeats of those originally taken at another institution all count as part of the five-course maximum. Although the original grade(s) will remain on the transcript, only the latest grade will be used in calculating grade point averages.

3. The course "forgiveness" and course repeat policy applies only to repeats of the **same course** (same number, same title, and, for Experimental Topics courses, same subtitle). Exceptions will be made only in those cases where the course number changes and the change is documented in the General Catalog.

4. In some cases, admission to courses may have become restricted due to impaction, limitation by major code, enforcement of prerequisites, or sequence requirements (e.g., mathematics and foreign language); in those cases, students may be prohibited from repeating those courses.

5. The only courses which may be repeated Credit/No Credit are those in which students previously received No Credit; if a course previously taken for a grade is repeated Credit/No Credit, the original grade will continue to be calculated in grade point averages. Repeating courses in which the original grade was "NC" does not require the filing of the Course Forgiveness Petition, nor does it subtract from the five forgivable repeats permitted, since the No Credit grade does not affect the student's GPA.

6. The course "forgiveness" policy may be extended to courses originally taken elsewhere and repeated at San Diego State University, in which case the original transfer grade will no longer be used in the

calculation of the overall grade point average. However, **the "forgiveness" policy applies only to courses repeated at San Diego State University.**

7. The course "forgiveness" policy applies to courses repeated at San Diego State University in Summer Sessions and Winter Session; it does not apply to courses repeated through Open University during Fall and/or Spring semesters.

8. **If courses with C- or lower grades are repeated without appropriate notification having been filed by the deadline or in excess of course repeat limitations (no more than two repeats per course, no more than five repeats total), course "forgiveness" will not be applied; all grades for those courses will be calculated in grade point averages. Units for a course will be counted only once toward graduation, regardless of number of repeats.**

9. If students repeat a course in which a grade of C or better was received, only the original grade and units earned will be used for calculation of grade point averages and units needed for a degree.

Assignment of Grades and Grade Appeals

1. Faculty have the right and responsibility to provide careful evaluation and timely assignment of appropriate grades.

2. There is a presumption that grades assigned are correct. It is the responsibility of anyone appealing an assigned grade to demonstrate otherwise.

3. Students who believe that an appropriate grade has not been assigned should first seek to resolve the matter informally with the instructor of record. If the matter cannot be resolved informally, the student may present the case to the appropriate campus entity, have it reviewed and, where justified, receive a grade correction.

4. It is the student's responsibility to attempt to resolve grade disputes in a timely manner, typically during the semester following the semester the questioned grade was received. If twelve or more months have elapsed since the grade was issued, or the student has graduated, no grade change will be made.

Courses

Satisfaction of Requirements

Except as permitted in the Graduation Requirements section of the catalog, a course cannot be used to satisfy more than one requirement.

Numbering of Courses

Courses numbered 80 through 99 are nonbaccalaureate level and are not acceptable for a bachelor's degree; those numbered 100 through 299 are in the lower division (freshman and sophomore years); those numbered 300 through 499 are in the upper division (junior and senior years) and intended for undergraduates; those numbered 500 through 599 are in the upper division and are also acceptable for advanced degrees when taken by students admitted to graduate standing; those numbered 600 through 799 are graduate courses; and those numbered 800 through 899 are doctoral courses.

Courses numbered at the 900 level are reserved for graduate courses in certain professional curricula as part of advanced certificate, credential, and licensure programs and are specifically intended for students admitted to the University with post-baccalaureate classified standing. Courses numbered at the 900 level are not applicable to other graduate programs.

Courses numbered X-01 through X-79 and X-397 are professional advancement units offered only through Extension to meet specific academic needs of community groups and are not acceptable toward an undergraduate or graduate degree. Courses X-01 through X-49 are designated as lower division and X-50 through X-79 and X-397 are designated as upper division.

Undergraduate Enrollment in 600-, 700-, and 800-Numbered Courses

1. Student must obtain permission of the instructor.
2. Student must be a senior in good standing and have a B (3.0) GPA average.

3. Undergraduate enrollments may not cause the exclusion of a qualified graduate student in a graduate course.

California Articulation Number (CAN)

The California Articulation Number (CAN) identifies some of the transferable, lower division, introductory (preparatory) courses commonly taught within each academic discipline on California college campuses.

The system assures students that CAN courses on one participating campus will be accepted "in lieu of" the comparable CAN course on another participating campus. For example: CAN ECON 2 on one campus will be accepted for CAN ECON 2 on another participating campus.

Courses at San Diego State University that have qualified for CAN designations are listed parenthetically by the course description in the Courses and Curricula section of this catalog.

Final Examinations

No final examination shall be given to individual students before the regular time. Any student who finds it impossible to take a final examination on the date scheduled must make arrangements with the instructor to have an incomplete grade reported and must take the deferred final examination within the time allowed for making up incomplete grades.

Academic Credit Through Coursework

Credit for Upper Division Courses

Normally, only juniors, seniors and graduate students enroll in upper division courses (numbered 300 and above). However, a freshman or sophomore may enroll in an upper division course for upper division credit if the instructor consents. Article 40405.2 of Title 5, *California Code of Regulations* specifically limits upper division general education credit to students who have achieved upper division status.

Community College Credit

A maximum of 70 semester units earned in a community college may be applied toward the degree, with the following limitations: (a) no upper division credit may be allowed for courses taken in a community college; (b) no credit may be allowed for professional courses in education taken in a community college, other than an introduction to education course.

Concurrent Master's Degree Credit

The bachelor's degree must be completed at the end of the semester or term in which the concurrent credit is earned.

A senior who has met all of the required competencies in writing and mathematics and who is within 12 units of completing requirements for the bachelor's degree and whose grade point average in the last 60 semester units attempted is 3.0 or above may petition the Graduate Council to take for concurrent master's degree credit 500-numbered courses listed in the *Graduate Bulletin* as acceptable for master's degree programs, and certain 600- and 700-numbered courses approved by the department, with the remaining requirements for the bachelor's degree. Petitions may be obtained from the Graduate Division and must be submitted to the Office of Admissions and Records by the end of the third week of classes of the semester or term in which the concurrent credit is earned, and the student must have on file a current graduation application for the bachelor's degree. The maximum number of units which may be earned as concurrent master's degree credit is determined by the difference between the number of units remaining for the bachelor's degree and 15.

Concurrent Postbaccalaureate Credit

Applicable to the "Fifth Year" Credential Requirement Only

Concurrent postbaccalaureate credit may be earned during the final semester or summer session by seniors admitted to the College of Education who meet all of the following qualifications:

1. Have a minimum grade point average of 2.5 on the last 60 units attempted.

2. Complete coursework in excess of graduation requirements during the semester (or summer session) when graduation occurs.

3. Attempt no more than 18 units during the final undergraduate semester (or 15 units during summer session).

4. Request no more than a maximum of 12 units of 300-, 400-, or 500-numbered courses for postbaccalaureate credit.

5. Submit petition before the end of the first week of classes (or the first week of summer Term A) of the final undergraduate semester (or term) when graduation occurs.

6. Petition the Dean of the College of Education.

7. Graduate at the end of the semester (or summer session) the petition is made.

Credit for Extension Courses

The maximum amount of extension and correspondence credit which may be accepted toward the minimum requirements for the bachelor's degree is 24 semester units. Extension and correspondence credit are not counted in satisfaction of the minimum residence requirement. A maximum of nine units in extension courses at San Diego State University may be accepted as part of the requirements for the master's degree, subject to limitations described in the Graduate Bulletin.

Continuing education courses offered by departments are of two kinds. The first includes regular courses listed in the General Catalog which are available for use by students in meeting college and university credit requirements of various kinds, and are usually at the upper division level. A second kind is offered by some departments at the X-01 through X-79 and X-397 level and serves to meet the needs of specific community groups.

Courses numbered 80 through 99 are nonbaccalaureate level and are not acceptable for a bachelor's degree; those numbered 100 through 299 are in the lower division (freshman and sophomore years); those numbered 300 through 499 are in the upper division (junior and senior years) and intended for undergraduates; those numbered 500 through 599 are in the upper division and are also acceptable for advanced degrees when taken by students admitted to graduate standing; those numbered 600 through 799 are graduate courses; and those numbered 800 through 899 are doctoral courses. Courses numbered at the 900 level are reserved for graduate courses in certain professional curricula as part of advanced certificate, credential, and licensure programs and are specifically intended for students admitted to the University with postbaccalaureate classified standing. Courses numbered at the 900 level are not applicable to other graduate programs.

Courses numbered X-01 through X-79 and X-397 are those offered only through Extension to meet specific academic needs of community groups. Courses numbered X-01 through X-79 are applicable as general elective credit toward an undergraduate degree at SDSU. Courses X-01 through X-49 are designated as lower division and X-50 through X-79 and X-397 are designated as upper division. It is the prerogative of the academic department/college to determine if X-01 through X-79 level courses are applicable to a major, a minor, or toward specified electives. The X-01 through X-79 level courses are offered in conjunction with certificate programs only. Courses at the X-01 through X-79 level are not acceptable on advanced degree programs. Courses offered as X-397 are not acceptable toward an undergraduate or graduate degree.

Extended Studies students who eventually plan to pursue an undergraduate degree at SDSU should consult the sponsoring academic department to ascertain the applicability of X-01 through X-79 level

courses offered in any certificate program toward their proposed course of study.

Academic Credit Through Examination

San Diego State University grants credit for passing scores on The College Board Advanced Placement Examinations, on certain tests in the College-Level Examination Program, and on Higher Level subjects in the International Baccalaureate program. It also grants credit for locally administered "credit by examination" tests. A total of 30 units will be allowed for credit earned through examination (excluding Advanced Placement). The details in each case are provided below.

Credit for Advanced Placement Examinations

San Diego State University grants credit toward its undergraduate degrees for successful completion of examinations of the Advanced Placement Program of The College Board. Students who present scores of three or better may be granted college credit.

High school students who intend to participate in this program should make the necessary arrangements with their high schools and should indicate at the time they take the Advanced Placement Examinations that their test scores be sent to San Diego State University. To obtain credit and advanced placement, the student should contact the Office of Admissions and Records.

The Advanced Placement Credit table on the following page indicates the units granted for the score attained and the course equivalents for each of the examinations offered.

Credit for College-Level Examination Program (CLEP)

The University grants credit (*see table below*) on four of the five CLEP General Examinations (Humanities, Mathematics, Natural Sciences, and Social Sciences) and on four of the CLEP Subject Examinations (Calculus with Elementary Functions, College Algebra and Trigonometry, General Chemistry, and Statistics).

Maximum credit of six units may be granted in each of the general examinations in social science, natural science, and humanities. Three units of credit are granted for the general examination in mathematics.

A total of thirty units of credit may be granted for all types of credit by examination. Credit is not allowed if coursework in the subject area has been completed. For further information, contact the Office of Admissions and Records or the University Advising Center.

GENERAL EXAMINATIONS

EXAMINATION	PASSING SCORE	MAXIMUM CREDIT GRANTED	GENERAL EDUCATION CREDIT
Natural Science	500	6 units	3 units in life science 3 units in physical science
Social Science	500	6 units	3 units in social science 3 units in history
Humanities	500	6 units	3 units in literature 3 units in fine arts
Mathematics	500	3 units	None. Satisfies Mathematics Competency requirement only.

SUBJECT EXAMINATIONS

EXAMINATION	PASSING SCORE	MAXIMUM CREDIT GRANTED	SDSU COURSE EQUIVALENT	GENERAL EDUCATION CREDIT GRANTED
College Algebra/Trigonometry	49	3 units	None	Yes
Calculus with Elementary Functions	51	3 units	MATH 121	Yes
General Chemistry	48	3 units	CHEM 200	Yes

Advanced Placement Credit

EXAMINATION	SCORE	Semester units credit allowed toward degree	SDSU course equivalents*	REMARKS
Art History.....	3, 4, 5	6	Art 258 and 259	
Art, Studio:				
General.....	3, 4, 5	6	Art 100 and 101	
Drawing.....	3, 4, 5	6	Art 100 and 101	
General and Drawing.....	3, 4, 5	12	Art 100, 101, 102, 103	
Biology.....	3, 4, 5	4	Biology 100 and 100L	
Chemistry.....	3, 4, 5	6	Chemistry 200, 201	
Classics:				
Latin Literature.....	3, 4	5	Classics 202L	If both examinations are passed with scores of 5, additional 3 units credit for Classics 304L will be provided.
	5	6	Classics 202L and 303L****	
Vergil.....	3, 4	5	Classics 202L	
	5	6	Classics 202L and 303L****	
Computer Science				
A**.....	3	3	Free electives	
	4, 5	3	Computer Science 107	
AB**.....	3	6	Computer Science 107 and free electives	
	4, 5	6	Computer Science 107 and 108	
Economics:				
Macro.....	3, 4, 5	3	Economics 101	
Micro.....	3, 4, 5	3	Economics 102	
English:				
Lang. and Comp.....	3, 4, 5	6	Rhetoric and Writing 100 and 200	Exempts from CSU English Placement Test and satisfies Writing Competency.
Comp. and Lit.....	3, 4, 5	6	English 220 and Rhetoric and Writing 100	
French Language.....	3, 4, 5	6	French 200A and 200D	Satisfies the foreign language requirement.
French Literature.....	3, 4, 5	6	French 305A and 305B	
German Language.....	3	6	German 200 and 201	Satisfies the foreign language requirement.
	4, 5	6	German 200, 201, and 202	
German Literature.....	3, 4, 5	6	German 310 and 499	
History:				
American.....	3, 4, 5	6	History 110A-110B	Satisfies American History/Institutions and Ideals, and U.S. Constitution requirements. Does not satisfy Calif. government requirement.
European.....	3, 4, 5	6	History 105, 106	
Mathematics:				
Calculus AB.....	3, 4, 5	5	Mathematics 150	Exempts from CSU Entry Level Mathematics Test and satisfies Mathematics Competency.
Calculus BC.....	3, 4, 5	6	Mathematics 150 and 151	
Calculus AB and BC.....	3, 4, 5	9	Mathematics 150 and 151	
Music.....	3, 4, 5	4	Music 155A-155B***	
Music Listening and Literature.....	3, 4, 5	6	Music 151 and 345	
Physics:				
B.....	3, 4, 5	6	Physics 180A-180B and 182A-182B	
C (Mechanics).....	3, 4, 5	6	Physics 195, 195L	
C (Electricity and Magnetism).....	3, 4, 5	6	Physics 196, 196L	
Political Science				
Govt./Politics: American.....	3, 4, 5	6	Political Science 101 and 102	Satisfies American History/Institutions and Ideals, and U.S. Constitution requirements. Does not satisfy Calif. government requirement.
Govt./Politics: Comparative.....	3, 4, 5	6	Political Science 101 and 102	
Govt./Politics: American and Comparative.....	3, 4, 5	12	Political Science 101, 102, 103, 296	
Psychology.....	3, 4, 5	3	Psychology 101	
Spanish Language.....	3	6	Spanish 201 and 211	Satisfies the foreign language requirement.
	4, 5	6	Spanish 202 and 212	
Spanish Literature.....	3, 4, 5	6	Spanish 405A-405B	

*Credit may not be earned at SDSU for courses which duplicate credit already allowed for examinations as listed under SDSU course equivalents

**Maximum combined credit six units allowed for Computer Science A and AB examinations.

***Student must also take Music Placement Examination.

****Satisfies the foreign language requirement.

Credit for International Baccalaureate Certificates or Diplomas

San Diego State University normally grants six units of credit for each International Baccalaureate Higher Level subject examination passed with a score of 4 or better. To receive credit, students must request that their International Baccalaureate transcript of grades be sent to San Diego State University's Office of Admissions and Records.

Credit by Examination

Students may challenge courses by taking examinations developed at San Diego State University. Up to 30 units will be awarded to those who pass the examinations successfully, and the grade(s) earned, including "F," will be used in San Diego State University grade point calculations. At the discretion of the department a grade of Cr/NC may be awarded instead of a letter grade; a maximum of 15 total Cr units may be applied toward an undergraduate degree.

Students interested in applying for credit-by-examination need to check with the appropriate department(s) since each department has the option of excluding any or all of its courses from credit by examination or of setting special conditions on the student requesting this option.

Approval to receive undergraduate credit-by-examination is granted at the discretion of the appropriate college authorities and under the following conditions:

1. The student must be matriculated, in good standing (not on probation), be registered in at least one regular course (not Extension) at the time credit-by-examination is authorized, and pay for additional units if cost exceeds fees already paid.
2. The student must register in the course for which credit by examination is being requested within the time limits for filing a change of program as listed in the Academic Calendar each semester.
3. Approval of the department chair and the dean of the college concerned is required prior to taking the examination. Forms for approval may be obtained from the Office of Admissions and Records.
4. Credit-by-examination is restricted to regular undergraduate courses listed in the General Catalog, does not include 600- and 700-numbered or Extension courses, and does not count toward the 30-unit minimum residency requirement.
5. Credit-by-examination is not treated as part of the student's study load and, therefore, is not considered by the Veterans Administration in the application of their regulations; and is not always accepted as transfer credit between collegiate institutions.
6. Credit-by-examination is restricted to the regular fall or spring semester. It is not allowed during summer or winter sessions.

Credit for Instruction in Noncollegiate Settings

San Diego State University grants undergraduate degree credit for successful completion of noncollegiate instruction, either military or civilian, appropriate to the baccalaureate, that has been recommended by the Commission on Educational Credit and Credentials of the American Council on Education. The number of units allowed are those recommended in the *Guide to the Evaluation of Educational Experience in the Armed Services* and the *National Guide to Educational Credit for Training Programs*.

Credit will be considered to be elective units in most cases. Petitions for acceptance of credits toward specific requirements are available in the Office of Admissions and Records. Applicability to specific degree requirements (General Education, Major, Minor, etc.) is subject to approval of the appropriate campus authority.

Academic Credit for Military Service

The University is guided by the recommendations of the American Council on Education in granting undergraduate credit toward the bachelor's degree for military service. Postgraduate credit is not granted.

To obtain credit for military service, the student must be fully matriculated, be enrolled at the University, and submit Form DD-214 or DD-295.

Student Classification

A matriculated student is one who has complied with all requirements for admission to the university and has received his official Notice of Admission. All students taking courses in any regular semester must be matriculated students. Only in summer sessions, winter sessions, or extension courses may a student who has not matriculated be accepted for enrollment.

Each student who enrolls in one or more summer session classes shall be classified as a summer session student. Each student who enrolls in one or more extension classes shall for his extension class work be classified as an extension class student. Such students need not be matriculated students as a prerequisite for enrollment in classes.

Freshman. A student who has earned a total of fewer than 30 semester units.

Sophomore. A student who has earned a total of 30 to 59 semester units, inclusive.

Junior. A student who has earned a total of 60 to 89 semester units, inclusive.

Senior. A student who has earned a total of 90 semester units or more.

Graduate. A student who has completed a four-year college course with an acceptable baccalaureate degree from an accredited institution and who has been admitted to the University with postbaccalaureate standing. For information on classification of graduate students, see the Graduate Bulletin.

Student Program and Records

Transcripts of Record

A student may obtain an official transcript of his/her record by filing an application at the Cashiers Office. A fee is charged for all transcripts and must be paid in advance. Ten to 15 days should be allowed for the processing and mailing of the transcript. Transcripts from other schools or colleges become the property of this university and will not be released or copied.

Unofficial Transcripts

Students may obtain an unofficial copy of their SDSU transcript by paying the unofficial transcript fee at the Office of Admissions and Records. These transcripts are usually available on an immediate basis. However, during peak periods, Admissions and Records reserves the right to offer a 48-hour turnaround. These records do not bear the seal of the University and are not suitable for transfer purposes. Unofficial copies will be made ONLY of the SDSU transcript.

Full-Time Student Status

Full-time student status at SDSU is 12 units per semester. Graduate units (courses numbered 500 through 999) taken by graduate students are weighted as 1-1/2 units per unit. Thus, full-time enrollment for a graduate student is eight units of coursework numbered 500 through 999. Students can obtain verification of their enrollment from the Office of Admissions and Records by any of the following methods: (1) in person with proper identification in Room 1563 of the Student Services building; (2) by mailing the request with the student's

authorization and signature, and a stamped, self-addressed envelope to Office of Admissions and Records, San Diego State University, San Diego, CA. 92182-7455.

Prerequisites

Prerequisites will be enforced in all sections of courses listed in the Academic Policy pages of the current Class Schedule and Information Handbook. Enrollment will depend on the student's verification of completion of prerequisites.

Change of Program

San Diego State University provides for change of program beginning the first day of classes every term. Change of program includes: dropping a class, adding a class, adding or reducing units of a class for which the student is already registered, changing a section of the same class, or changing grading options. Change of program is done on RegLine, the SDSU touchtone registration system, until the deadline for each activity. For example, students drop classes by calling RegLine through the tenth day of instruction.

Students are responsible for every course on their official study list. If a student does not attend the first class meeting of the semester and is not present at the start of the second meeting, the professor may give that student's place to another student; however, if this occurs, the student must still take the necessary formal drop action personally. Changes of program cannot be effected by nonattendance in class; nonattendance without consequent formal drop action will result in a failing grade.

Dropping a class after the end of the tenth day of instruction and prior to the last three weeks of instruction is permissible only for serious and compelling reasons. Permission to drop a class during this period is granted only with the signature of the instructor, who indicates the student's grade status in the class, and the approval of the dean or designee of the college in which the class is located, and approvals are made in writing on prescribed forms. After the fourth week, the grade of "W" will appear on the student's permanent record for courses on which an official drop has been approved.

Students are not permitted to drop a class during the final three weeks of instruction, except in cases such as accident or serious illness where the cause of dropping the class is due to circumstances clearly beyond the student's control and the assignment of an Incomplete is not practicable. All such requests must be accompanied by appropriate verification. Ordinarily, withdrawals in this category will involve total withdrawal from the campus, except that credit, or an Incomplete, may be assigned for courses in which sufficient work has been completed to permit an evaluation to be made. Requests to withdraw under such circumstances must be approved by the dean (or designee) of the college of the student's major.

Deadlines

1. Students may drop courses, without penalty or restriction, until the end of the tenth day of classes. For the Fall 1995 semester, the drop deadline is September 11, 1995. For the Spring 1996 semester, the drop deadline is February 9, 1996.
2. Students may add courses until the end of the fifteenth day of classes. For the Fall 1995 semester, the add deadline is September 18, 1995. For the Spring 1996 semester, the add deadline is February 16, 1996.
3. Students may completely withdraw from SDSU, without penalty or restriction, until the fifteenth day of classes. For the Fall 1995 semester, the withdrawal deadline is September 18, 1995. For the Spring 1996 semester, the withdrawal deadline is February 16, 1996.
4. Students may elect to change the grading option of courses until the fifteenth day of classes. No changes will be made after this deadline. For the Fall 1995 semester, the change in grading option deadline is September 18, 1995. For the Spring 1996 semester, the change in grading option deadline is February 16, 1996.

Change of Major or Curriculum

At the time of admission to the university, each undergraduate student is assigned to a major field or curriculum, or is designated as an undeclared major. After registration, all students wishing to change their major or curriculum should check with the department of their intended major for requirements and filing periods. Change of major forms are available at the Office of Admissions and Records.

Veterans using veteran benefits must obtain appropriate approval from the Veterans Administration for necessary changes in letters of eligibility.

Upon change or declaration of major, students must adopt the requirements of the major and any minors in effect at that time.

Academic Renewal

Under certain circumstances the campus may disregard up to two semesters or three quarters of previous undergraduate coursework taken at any college from all considerations associated with requirements for the baccalaureate degree. These circumstances are:

1. The student is a candidate for the baccalaureate degree at San Diego State University.
2. The student has requested the action formally and has presented evidence that work completed in the term(s) under consideration is substandard and not representative of present scholastic ability and level of performance; and
3. The level of performance represented by the term(s) under consideration was due to extenuating circumstances; and
4. There is every evidence that the student would find it necessary to complete additional units and enroll for one or more additional terms in order to qualify for the baccalaureate degree if the request were not approved.

Final determination that one or more terms shall be disregarded in determination of eligibility for graduation shall be based upon a careful review of evidence by a committee appointed by the President which shall include the Vice President for Academic Affairs and consist of at least three members. Such final determination shall be made only when:

1. Five years have elapsed since the most recent work to be disregarded was completed; and
2. The student has completed at SDSU, since the most recent work to be disregarded was completed, 15 semester units with at least a 3.0 GPA, 30 semester units with at least a 2.5 GPA, or 45 semester units with at least a 2.0 GPA. Work completed at another institution cannot be used to satisfy this requirement.

When such action is taken, the student's permanent academic record shall be annotated so that it is readily evident to all users of the record that **no** work taken during the disregarded term(s), even if satisfactory, may apply toward baccalaureate requirements. However, all work must remain legible on the record ensuring a true and complete academic history.

The procedure for filing Petition for Academic Renewal is as follows:

1. Obtain the petition from the Division of Undergraduate Studies, AD-223.
2. Fill in the form carefully and completely.
3. Attach statements and documentary evidence from doctors, lawyers, employers, parents, professors, or other appropriate persons to substantiate your claim that the request is justified.
4. Obtain all necessary clearances and signatures.
5. Return all materials to the Division of Undergraduate Studies, AD-223.

Withdrawal, Leaves of Absence, Readmission, and Evaluation

Withdrawal

Students who wish to withdraw from the University must initiate action formally through the Office of Admissions and Records. Failure to withdraw will result in a failing grade in all courses. A student who is not enrolled in at least one class (other than for audit) at the end of the fourth week of instruction (census date) is no longer considered a continuing student and may be required to apply for readmission. Refunds are obtainable only for the first 14 days after the semester begins. In order to receive a refund, you must file an official withdrawal form and refund request at the Office of Admissions and Records within the first 14 days of the term.

A course will not appear on the permanent record if withdrawal occurs before the end of the fourth week of classes. After the fourth week, a grade of "W" will appear for courses on which an official drop has been approved. During the final three weeks of instruction, withdrawals are not permitted except in cases where the cause of withdrawal is due to circumstances clearly beyond the student's control. Credit or an incomplete may be assigned for courses in which sufficient work has been completed to permit an evaluation to be made. Refer to the Class Schedule for appropriate dates for the deadlines indicated above.

After the last day of the semester, a student who wishes to change assigned grades to "W" grades must request to withdraw from the full semester's work; no requests for individual classes will be accepted. Such requests may be granted only in verified cases such as accident or serious illness where the cause for substandard performance was due to circumstances clearly beyond the student's control.

Unofficial Withdrawal

Students withdrawing unofficially from class or from the University will receive failing grades in all courses that they stop attending. An unofficial withdrawal is one in which a student stops attending classes without filing official withdrawal forms within the established deadlines.

Veterans unofficially withdrawing will have veteran's allowances immediately suspended and will be subject to full repayment of allowances received after date of unofficial withdrawal.

Leaves of Absence

One-Semester Stop Out. With certain exceptions, matriculated undergraduate and graduate students may stop out of San Diego State University one semester in a calendar year and maintain their continuing student status. Continuing status includes the maintenance of catalog requirements for graduation. Disqualified students, students absent for more than one semester without an approved leave of absence, and those who attend another institution for more than one semester must apply for readmission should they wish to return to San Diego State University. Students who are disqualified or are subject to disqualification are not eligible for a one-semester stop out.

Educational Leave of Absence. Students are permitted to take up to four consecutive semesters of approved leave of absence. An educational leave of absence is appropriate in those cases where students will be engaged for the majority of the leave time in an activity, other than attending an accredited college or university, that is directly related to their formal academic careers or otherwise contributes to specific academic goals. Students must apply for the particular semester they wish to be absent from school. If they wish to extend a leave for additional semesters, a separate request must be filed previous to the deadline for submitting leaves as outlined in the Academic Calendar.

Students who leave San Diego State University in order to attend up to four consecutive semesters at another accredited college or university need not apply for a leave of absence in order to maintain catalog requirements; however, such students absent from San Diego State University more than one semester must apply for readmission in order to return to the University.

A student requests a leave from the Office of Admissions and Records by calling (619) 594-7800. Students wishing to cancel a leave must do so prior to the first day of classes by calling (619) 594-7800. The Class Schedule and Student Information Handbook contains specific deadlines. For students participating in the CSU visitors' program, units completed at the visitor campus will be considered resident units; they will not, however, be calculated into the San Diego State University grade point average.

Approval for educational leaves of absence will be granted only to undergraduate students who have completed a minimum of one semester at San Diego State University, who are in good academic standing, and who are eligible to register. Leaves will not be granted to students on probation, students who are subject to disqualification or have been disqualified, students who qualify for a change from undergraduate to graduate status, or students who have a registration hold.

Readmission

A student who leaves the University for more than one semester must file an application for readmission with a \$55 application fee. If the student was enrolled at another institution subsequent to the last attendance at San Diego State University, an official transcript showing work completed must be sent by the transfer institution, directly to the Office of Admissions and Records before readmission can be completed.

Readmitted students may retain rights to graduation requirements in effect when leaving San Diego State University if the following conditions are met:

1. Enroll at least one semester (or two quarters) per year at an accredited institution, and
2. Be absent from San Diego State University for no more than two years, and
3. Remain in good standing (not academically disqualified) at all institutions attended.

In order to retain catalog rights for major requirements, a student must maintain the same major at any institution attended during absence from San Diego State University.

Evaluation

An evaluation is a summary of college work completed and of requirements to be completed for a bachelor's degree. To be eligible for an evaluation, a student must be currently enrolled, have completed at least 56 units of acceptable college work, and have a declared major. An evaluation will not be done until official copies of all transfer credit are on file in the Office of Admissions and Records. Only one evaluation will be done for each major.

A student who has earned 56 semester units or more and has not received an evaluation should apply at the Office of Admissions and Records for an official evaluation. The evaluation is made on the regulations in effect at the time the student declares the major, provided continuous enrollment has been maintained, except as otherwise provided in the *California Code of Regulations*, Chapter 5, Section 40401, Election of Regulations. (Further information is given in the section of this catalog on Graduation Requirements.)

Credit and Study List Limits

A unit or credit hour represents 50 minutes of lecture or recitation combined with two hours of preparation per week throughout one semester of 16 weeks. Two hours of activity (as in physical education) or three hours of laboratory (as in the sciences) are considered equivalent to one hour of lecture.

During initial RegLine registration, students will not be permitted to enroll for more than 16 units. After registration, units may be added, if desired, by means of the add-drop process, though if students are employed outside of college they are strongly advised to undertake a modest college program. Normally a student can expect to spend in class and study a total of three hours per week for each unit of college work attempted. A normal 16-unit load, therefore, represents a

48-hour week. Students must keep in mind the fact that some courses require far more than the average amount of time and that the workload in all courses can be expected to vary throughout the semester as examinations and major papers or projects come due.

Graduation With Honors and Distinction

Graduation with honors is granted to those undergraduate students who achieve high grade point averages. Excellence is recognized at three levels: *cum laude* (3.50-3.64), *magna cum laude* (3.65-3.79), and *summa cum laude* (3.80-4.00).

For determination of eligibility, two grade point averages are computed; **Both** must satisfy the minimum grade point average for appropriate honors designation. They are the GPA calculated on all units taken at this institution (a minimum of 24 graded units), and the overall (cumulative) grade point average (including both SDSU and transfer units).

Grades for the final semester's work are included in calculation of eligibility for graduation with honors. Students are tentatively designated as eligible for graduation with honors if the grade point average meets required standards at the beginning of the fall semester for mid-year graduates and at the end of the fall semester for May and summer session graduates. Notation of *cum laude*, *magna cum laude*, or *summa cum laude* on transcripts and diplomas is based on achievement when all courses for graduation are completed.

Upon recommendation of their major department, students doing superior work in their major field may be graduated with distinction in that field. To qualify for Distinction in the Major, a student must have a minimum 3.50 grade point average in the major (upper division courses) by the beginning of the fall semester for midyear graduates and by the end of the fall semester for May and summer session graduates. Departments may set a higher GPA or additional criteria.

To be considered for computation of the major grade point average, grades for removal of Incomplete and all other grade changes must be received in the Office of Admissions and Records no later than the end of the fifth week of the semester in which the student plans to graduate. All changes for summer session graduates must be received by the end of the fifth week of the spring semester prior to graduation.

Dean's List

The Dean's List recognizes academic achievement within a single semester.

Students must place within the top ten percent of the college in which they are majoring and have a grade point average of at least 3.50 based on a minimum of 12 units of credit for courses in which letter grades were assigned. The computation of grade points will be made six weeks after the end of the semester to include students who complete incomplete grades promptly.

Students will be recognized by the dean of their respective college; undeclared and liberal studies majors will be listed by the Dean of Undergraduate Studies.

Academic Probation, Disqualification, and Reinstatement of Undergraduate Students

Academic Probation

The purpose of probation is to warn students that their academic performance is below the state minimum required for graduation and to indicate that improvement is required before a degree can be granted. If students on probation allow their work to deteriorate to the point where it is unlikely that their grade point deficiency can be removed in the time remaining to complete their degree requirements, they will be subject to disqualification.

Undergraduate students will be placed on academic probation if at any time their cumulative grade point average in all college work attempted or their cumulative grade point average at SDSU falls

below 2.0. Summer Session and Winter Session courses are included in the SDSU grade point average; Open University (concurrent enrollment) and Extension courses are calculated only in the overall grade point average.

The grade point average is computed by dividing the number of grade points accumulated by the number of graded units attempted. (See chart under "Plus/Minus Grading" for number of grade points assigned per unit in each grade category.)

Students will be removed from Academic Probation when their cumulative grade point average has been raised to 2.0 or higher in all college work attempted and in all work attempted at this University.

Academic Disqualification

Undergraduate students on academic probation will be subject to disqualification when:

1. As a lower division student (with fewer than 60 semester units of college work completed) they fall 15 or more grade points below a 2.0 (C) average on all units attempted or in all units attempted at this campus.
2. As juniors (with 60-89 semester units of college work completed) they fall nine or more grade points below a 2.0 (C) average on all units attempted or in all units attempted at this campus.
3. As seniors (90 semester units of college work completed) they fall six or more grade points below a 2.0 (C) average on all units attempted or in all units attempted at this campus.

Grade point deficiencies below a 2.0 average are calculated in the following manner:

- +2 points for every unit of A
- +1 point for every unit of B
- 0 points for every unit of C
- 1 point for every unit of D
- 2 points for every unit of F
- 2 points for every unit of U
- 2 points for every unit of INC
- (after one calendar year)

Reinstatement of Academically Disqualified Students

Disqualified students will ordinarily be considered for reinstatement to the University only when conditions causing the poor performance have been alleviated or sufficient academic work at another college or university has been completed at a level indicating that the student is capable of returning to SDSU and successfully satisfying the requirements for a degree.

Students may be considered for reinstatement only after filing an application for reinstatement by the published deadline and furnishing transcripts of all college work taken since disqualification. If not reinstated for the following semester, disqualified students must also submit an application for readmission with a \$55 application fee. Reinstatement is not automatic. Each applicant will be considered on an individual basis. Because criteria for reinstatement vary, disqualified students should immediately contact the Assistant Dean of the college of their major to find out what criteria will be used to determine their eligibility for reinstatement.

Students accepted for reinstatement will reenter on academic probation and those reinstated and readmitted after a break in continuous enrollment will be subject to catalog requirements in effect at the time they resume study at SDSU or a California community college and remain in continuous attendance (see "Election of Regulations for Graduation" under "Graduation Requirements"). They are not guaranteed reentry into their previously declared majors. Consideration for reentrance into the previously declared major is done on an individual basis at the discretion of the major department.

Disqualified students should be aware of the following:

1. Disqualified students are not considered for reinstatement for Spring semester.
2. Grades of less than 2.0 (C) for courses taken at SDSU will not be replaced if the courses are repeated at another college or university. These courses should be repeated ONLY in resident enrollment at SDSU. Special sessions courses taken during Winter and Summer Sessions through the College of Extended Studies are considered resident enrollment. Extension courses and courses taken in Fall and Spring semesters through Open University are NOT considered resident enrollment.
3. Grades earned at other accredited colleges or universities or during Fall and Spring through Open University or Extension do not reduce the SDSU grade point deficiency or change the SDSU grade point average, but are used in the reinstatement process as indicators of the student's future academic success. These grades will be used in calculating the overall GPA. Grades for courses taken during Winter and Summer Sessions through the College of Extended Studies will be used in calculating the student's SDSU GPA.
4. Courses traditionally considered "nonacademic" are inappropriate as indicators of future academic success.
5. Normally, students who have been disqualified twice from this institution will not be considered for reinstatement.

Administrative Academic Probation and Disqualification**Administrative Academic Probation**

An undergraduate or graduate student may be placed on administrative academic probation by action of appropriate campus officials for any of the following reasons:

1. Withdrawal from all or a substantial portion of a program of studies in two successive terms or in any three terms.
2. Repeated failure to progress toward the stated degree or objective or other program objective (when such failure appears to be due to circumstances within the control of the student).
3. Failure to comply, after due notice, with an academic requirement or regulation which is routine for all students or a defined group of students (examples: failure to list all colleges attended on the application for admission, failure to take placement tests, failure to complete a required practicum).

Administrative Academic Disqualification

A student who has been placed on administrative academic probation may be disqualified from further attendance if:

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

Student-Athlete Satisfactory Academic Progress Requirement

In order to remain eligible for intercollegiate competition, a student-athlete must be enrolled in an academic program leading to a recognized degree, must be making satisfactory progress toward that

degree under the rules of the institution and the NCAA, and must achieve at least the minimum cumulative GPA standards found in the WAC Minimum Cumulative Grade Point Average Requirement Table.

Student Discipline and Grievances

Inappropriate conduct by students or by applicants for admission is subject to discipline on the San Diego State University campus. The Office of Judicial Procedures coordinates the discipline process and establishes standards and procedures in accordance with regulations contained 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 nonaccidental 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 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, nonacademic 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, slingshot, 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 student 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 ensure 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 on 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.

Student Grievances

If a student believes that a professor's treatment is grossly unfair or that a professor's behavior is clearly unprofessional, the student may bring the complaint to the proper University authorities and official reviewing bodies by following the *Procedures for Handling Student Grievances Against Members of the Faculty*, adopted by the Faculty Senate. A copy of the procedures may be obtained from the Ombudsman's Office in the Student Services building.

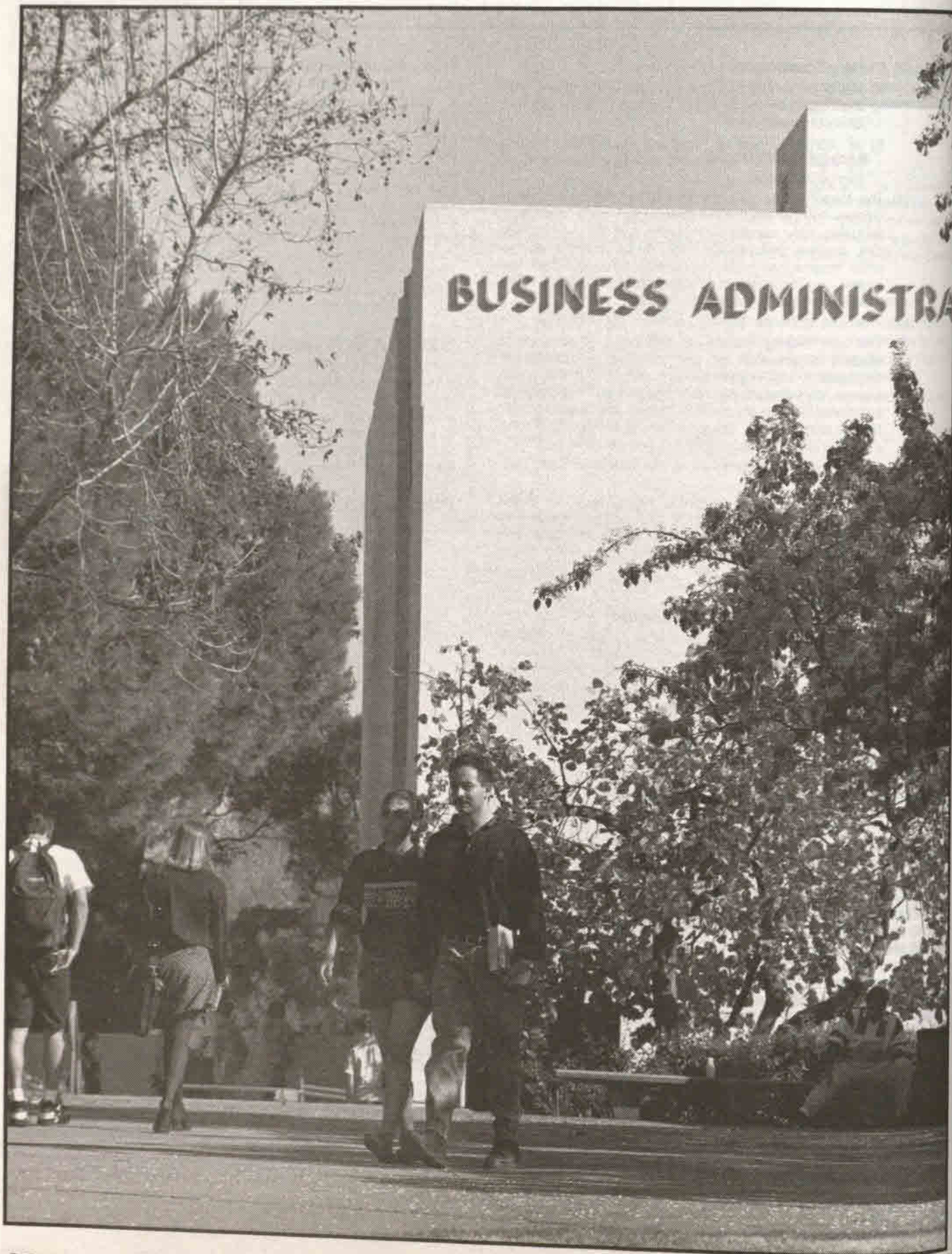
Plagiarism

Plagiarism is formal work publicly misrepresented as original; it is any activity wherein one person knowingly, directly, and for lucre, status, recognition, or any public gain resorts to the published or unpublished work of another in order to represent it as one's own. Work shall be deemed plagiarism: (1) when prior work of another has been demonstrated as the accessible source; (2) when substantial or material parts of the source have been literally or evasively appropriated (substance denoting quantity; matter denoting qualitative format or style); and (3) when the work lacks sufficient or unequivocal citation so as to indicate or imply that the work was neither a copy nor an imitation. This definition comprises oral, written, and crafted pieces. In short, if one purports to present an original piece but copies ideas word for word or by paraphrase, those ideas should be duly noted.

Lindey, Alexander. *Plagiarism and Originality*, 1952.

San Diego State University is a publicly assisted institution legislatively empowered to certify competence and accomplishment in general and discrete categories of knowledge. The President and faculty of this University are therefore obligated not only to society at large but to the citizenry of the State of California to guarantee honest and substantive knowledge in those to whom they assign grades and whom they recommend for degrees. Wittingly or willfully to ignore or to allow students' ascription of others' work to themselves is to condone dishonesty, to deny the purpose of formal education, and to fail the public trust.

The objective of university endeavor is to advance humanity by increasing and refining knowledge and is, therefore, ill served by students who indulge in plagiarism. Accordingly, one who is suspected or accused of disregarding, concealing, aiding, or committing plagiarism must, because of the gravity of the offense, be assured of thorough, impartial, and conclusive investigation of any accusation. Likewise, one must be liable to an appropriate penalty, even severance from the University and in some cases revocation of an advanced degree, should the demonstrated plagiarism clearly call into question one's general competence or accomplishments.



Graduation Requirements

Competency
Upper Division Writing
Major and Minor
American Institutions
Foreign Language
Units
Residence
Grade Point Average
General Education

Graduation Requirements for the Bachelor's Degree

The University will make every effort to preserve the requirements in this "Graduation Requirements" section for students subject to this catalog according to the provisions enumerated below. All other parts of the catalog are subject to change from year to year as University rules, policies, and curricula change. It is your responsibility to keep informed of such changes; failure to do so will not exempt you from whatever penalties you may incur.

The requirements appearing in this catalog are applicable to students under the following circumstances:

1. You may remain with the graduation requirements in effect during the academic year in which you entered SDSU, another campus in the CSU system, or a California community college, so long as you have remained in attendance at least one semester or two quarters within a calendar year in either the CSU or community college system. Absence due to an approved educational leave or for attendance at another regionally accredited institution of higher learning shall not be considered an interruption in attendance if the absence does not exceed two years. If you change or declare your majors in subsequent years, however, you must adopt the major and minor requirements in effect at the time of such change or declaration. You may continue with the earlier catalog only with regard to General Education and other graduation requirements.

If you are disqualified from San Diego State University and not immediately reinstated you may maintain catalog rights for General Education purposes only by enrolling immediately in a California community college, SDSU Open University, or another CSU campus. If you are subsequently reinstated after a break in continuous enrollment, you are subject to the requirements of the *General Catalog* in effect during the semester in which you reenroll in the CSU system, SDSU Open University, or a California community college.

2. You may change to the catalog in effect in the year in which you graduate. Thus, students graduating in December 1995, May 1996, or in the 1996 summer sessions may adopt this catalog by so indicating on their application for graduation.

I. Competency Requirements: Writing and Mathematics

All students, whether freshmen or transfer, are required to demonstrate competency in standard written English and basic mathematics within the first three semesters of attendance at SDSU. Students failing to complete these competency requirements by the middle of their third semester of attendance will lose their registration priority.

Students enrolled at the Imperial Valley Campus of SDSU must satisfy the SDSU Writing Competency requirement and the SDSU Mathematics Competency requirement by the beginning of their second semester at SDSU Imperial Valley Campus. If these requirements are not satisfied, students must then register for and attempt to pass the appropriate Rhetoric and Writing or General Mathematics Studies courses.

Competency requirements are required preparation for a number of specific courses identified in the Class Schedule. Test dates and times are listed in the "Special Tests" section of the current Class Schedule. No student may graduate until all competency requirements are satisfied.

WRITING REQUIREMENTS

Demonstration of writing competency is satisfied in one of the following ways:

1. Passing one of the following national or state tests at the minimum score* or level identified below [clears English Placement Test and Writing Competency]:

- a. EPT score of 7 essay and 150 total (CSU English Placement Test).
- b. SAT or SAT I verbal score of 470 (Scholastic Aptitude Test or Scholastic Assessment Test). Taken before March 1995.
- c. ACT English usage score of 25 (American College Test).
- d. AP score of 3 on language and composition or literature and composition (The College Board Advanced Placement Program).
- e. Score of 600 on the College Board Achievement Test in English Composition with Essay.
- f. Score of 600 on the College Board SAT II Writing Test taken before March 1995.
- g. CSU English Equivalency Examination satisfactory score.

OR

II. Complete BOTH A and B.

- a. Attempting but failing the EPT (CSU English Placement Test) (score below 7 essay and/or 150 total)
- b. Passing the SDSU Writing Competency Test OR earning credit (Cr) in one of the following courses: Rhetoric and Writing 92A, 92B, 94, 95, 97A, 97B [clears Writing Competency].

OR

III. Complete BOTH A and B.

- a. Passing with a C or better a transferable GE English Composition course (3 semester or 4 quarter units) [clears English Placement Test]
- b. Passing the SDSU Writing Competency Test OR earning credit (Cr) in one of the following courses: Rhetoric and Writing 92A, 92B, 94, 95, 97A, 97B [clears Writing Competency].

Credit earned in Rhetoric and Writing 92A, 92B, 94, 95, or 97A, 97B is not applicable to the baccalaureate degree.

MATHEMATICS REQUIREMENTS

Demonstration of mathematics competency is satisfied in one of the following ways:

1. Passing one of the following national or state tests at the minimum score* or level identified below [clears Entry Level Mathematics and Mathematics Competency]:
 - a. ELM score of 550 (CSU Entry Level Mathematics).
 - b. SAT or SAT I mathematics score of 560 (Scholastic Aptitude Test or Scholastic Assessment Test). Taken before March 1995.
 - c. ACT mathematics test score of 25 (American College Test).
 - d. AP score of 3 on mathematics AB or BC examination (The College Board Advanced Placement Program).
 - e. Score of 560 on the College Board Mathematics Achievement Test, Level I or II or IIC taken prior to March 1994.
 - f. Score of 560 on the College Board SAT II Mathematics Test, Level I or II or IIC taken prior to March 1995.

OR

II. Complete BOTH A and B.

- a. Attempting and failing the ELM test (CSU Entry Level Mathematics) (score below 550)
- b. Earning Credit (Cr) in General Mathematics Studies 90A at SDSU [clears Entry Level Mathematics and Mathematics Competency].

* These scores are appropriate only to those students who satisfy the requirement upon matriculation in this catalog year or who take the examinations during this catalog year.

OR

III. Complete BOTH A and B.

- a. Passing with a C or better a transferable mathematics course that satisfies General Education in Quantitative Reasoning [clears Entry Level Mathematics]
- b. Earning a satisfactory score on any section of the SDSU Mathematics Departmental Placement Examination OR Credit (Cr) for General Mathematics Studies 90B, 91, or 99B at SDSU [clears Mathematics Competency].

OR

IV. Complete BOTH A and B.

- a. After an unsuccessful attempt of the ELM, passing with a C or better an intermediate algebra course taken at another college or university [clears Entry Level Mathematics]
- b. Earning a satisfactory score on any section of the SDSU Mathematics Departmental Placement Examination OR Credit (Cr) in General Mathematics Studies 90B, 91, or 99B at SDSU [clears Mathematics Competency].

Credit earned in General Mathematics Studies 90A, 90B, 91, 99A or 99B is not acceptable to the baccalaureate degree.

Mathematics Departmental Placement Examination

In addition to satisfying the CSU ELM and SDSU Mathematics Competency requirements, students wishing to enroll in any mathematics or statistics course must pass the appropriate part of the Mathematics Departmental Placement Examination. These examinations assess mathematical preparation beyond the elementary level. Part IA tests knowledge of intermediate algebra; Part P tests knowledge of college algebra; Part III tests knowledge of trigonometry. Equivalent transfer courses will not grant exemptions from any part of the Placement Examination.

II. Upper Division Writing Requirement

All students must demonstrate competency in writing skills as mandated by the major and included in each major description.

Before attempting to satisfy this requirement, students must:

1. Have completed or be completing 60 units;
2. Have fulfilled the Writing Competency requirement; and
3. Have completed the General Education Communication and Critical Thinking requirement in Composition and Intermediate and Critical Thinking.

Failure to complete these prerequisites precludes satisfying the requirement by any means. Proof of completion of prerequisites is required for enrollment in courses listed below. When offered in a three-week session, students must, on the first day of class, demonstrate in a diagnostic test that their language skills are sufficiently high to give them a reasonable opportunity to pass the course in shortened format.

Students whose majors do not specify any particular course or procedure may select from the following options:

1. Demonstrating the required proficiency by passing the University Upper Division Writing Examination.
2. Passing with a grade of Cr or C (2.0) or better one of the following courses:

Commun Disorders 396W	Linguistics 305W
English 306W	Linguistics 396W
English 508W	Mex Amer Studies 396W
English 581W	Recreation 396W
English 584W	Religious Studies 396W
History 430W	Rhetoric and Writing 305W
Info and Dec Sys 390W	Rhetoric and Writing 500W
Info and Dec Sys 396W	Rhetoric and Writing 503W
Journalism 310W	Sociology 396W

(Note: Several of these courses are limited to majors in the indicated department or have additional prerequisite requirements. Courses required for the major must be taken for a letter grade.)

Students who transfer from another CSU campus having fulfilled the Upper Division Writing requirement will not be required to repeat it. Please note, however, that a course listed above may be required for the major.

III. Major and Minor Requirements

A. Preparation for the Major. Every major requires a set of introductory and/or skills courses designed to prepare the student for upper division study in that field. Courses taken for this purpose may also be used to satisfy General Education requirements if approved for General Education.

B. Major. Completion of a departmental or an interdisciplinary major is required. Students must meet major requirements in effect at time of declaration of major, provided continuous enrollment has been maintained, except as otherwise provided in the *California Code of Regulations*, Chapter 5, Section 40401, Election of Regulations. A major is an area of specialized study which provides the student with extensive knowledge of the subject matter and its organizing concepts. It consists of 24 or more upper division units for the Bachelor of Arts, Bachelor of Music, and Bachelor of Vocational Education degrees; and of 36 or more units for the Bachelor of Science degree. At least half of the units must be completed at SDSU unless specifically waived by the department; however, in no case shall a student be allowed to complete fewer than 12 units in the major at SDSU. Units received through SDSU extension courses, with the exception of courses offered for resident credit during Summer Sessions and Winter Session, are not applicable to the residency requirement. Unless otherwise stated, a student may (with the approval of the department) apply no more than three units of coursework from a basic certificate program toward a major or minor.

A summary list of all majors appears at the close of this chapter; the full statement of requirements for each major can be found through the Index. Courses taken in the major department or in satisfaction of the major cannot be used to meet requirements in a minor or in General Education. A maximum of three upper division units in excess of 24 for the B.A. degree and 36 for the B.S. degree required for the major but taught outside the major department may be used to satisfy requirements both for General Education and the major if such courses have been approved for General Education. Courses graded credit (Cr) may not be used to fulfill upper division requirements in the major except for those courses identified in the course listing as graded Cr/NC.

A student may wish to major in two departments. If so, the requirements for both majors must be satisfied. Units for courses which could satisfy the requirements in both majors can be counted only once. Only one diploma will be granted but the diploma and transcript will note the completion of each major.

A student may earn two majors in one department only where the specific combinations of majors are authorized in the catalog. All requirements for both majors must be satisfied; units for courses which could satisfy requirements in both majors can be counted only once. In most cases, students pursuing two majors in one department will be required to file with the Office of Admissions and Records a master plan approved by the major department.

Time Limit on Completion of Requirements for the Major. As authorized by Title 5, *California Code of Regulations*, Section 40401, departments may require that specific academic requirements be met within seven years of granting an undergraduate degree. Such requirements will consist of advanced courses and examinations in areas of knowledge changing so rapidly that information may be obsolete after seven years. In those cases in which a student is required to repeat a course taken more than seven years previously, only the last grade will be used in computation of grade point averages.

C. Minor. Completion of a minor is necessary if required by the major; the decision otherwise to have, or not to have, a minor is left with the student. Like the major, the minor offers an integrated and

coherent pattern of coursework, combining lower and upper division coursework in proportions appropriate to the various disciplines. The minor shall consist of 15-24 units. Normally, 12 units of coursework in the minor will be upper division units. A minimum of six upper division units must be completed at SDSU. The minimum grade point average for awarding a minor at the time of graduation is 2.0 (C) or better in all units applicable toward a minor, including those accepted by transfer from another institution. Courses graded credit (Cr) may not be used to fulfill upper division requirements in the minor except for those courses identified in the course listing as graded Cr/NC. Courses numbered 296, 496, 596 may be applicable to the minor only with approval of the department chair. A summary list of all minors appears at the close of this chapter; the full statement of requirements for each minor can be found through the Index. Because special prerequisites must be met to qualify for certain minors, checking with the minor department before taking courses is advised. Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and General Education requirements. Declaration of a minor occurs by obtaining and filing a Declaration of Major or Minor form at the Office of Admissions and Records.

IV. American Institutions Requirement

Title 5, *California Code of Regulations*, Article 5, Section 40404 requires that all students demonstrate an understanding of American history, the United States Constitution, and California state and local government.

The American Institutions requirement can be satisfied in any of three ways:

A. San Diego State University Courses: By passing any one of the following pairs of courses:

Africana Studies 170A and 170B	Political Sci 101 and 102
History 110A and 110B	Political Sci 101 and 320
History 110A and 310B	Political Sci 102 and 305
History 115A and 115B	Political Sci 102 and 321
History 310A and 310B	Political Sci 102 and 422
History 310A and 110B	Political Sci 305 and 320
History 410A and 410B	Political Sci 305 and 321
History 547A* and 547B*	Political Sci 305 and 422
Mex Amer Studies 120A and 120B	Political Sci 320 and 321
Mex Amer Studies 141A and 141B	Political Sci 320 and 422
	Women's Studies 341A-341B

*Three of the six units needed for American Institutions can also be applied to General Education, except for History 547A and 547B.

B. Transfer courses from accredited California Colleges and Universities:

1. Full Certification of American Institutions Requirement: Students transferring within California will fulfill the American Institutions requirement by providing certification on a transcript or other official document from a regionally accredited California university, liberal arts college, or community college that the requirement as outlined in Title 5, *California Code of Regulations*, Article 5, Section 40404 has been satisfied.

2. Partial Completion of American Institutions Requirement: Transfer credit may be used toward partial fulfillment of the American Institutions requirement.

3. Certification Based on High School Work: No certification based on high school work can be accepted.

C. Transfer Courses from Outside California or Advanced Placement Credit: Students who have met both the American history and United States Constitution portion of the American Institutions requirement through any of the following:

- Advanced Placement (AP) credit in American history or Government/Politics: American.
- Course(s) in American history which cover a minimum of 100 years of U.S. history, including the establishment of the U.S. Constitution;

- An American history course which covers a minimum of 100 years of history AND a course in American Government; may elect to complete the California state and local government portion of the American Institutions requirement by either:

- Taking the California Government examination available through the SDSU Test Office, OR
- Completing one of the following SDSU courses: Africana Studies 170B; History 110B*, 115B, 310B*, 410B, 541B, 547B; Mexican American Studies 120B, 141B; Political Science 102**, 320**, 321, 422; Women's Studies 341B.

*Credit will not be granted for this course if the student has taken an equivalent post-Civil War American history course or American history AP credit.

**Credit will not be granted for this course if the student has taken an equivalent American government course or Government/Politics: American AP credit.

V. Foreign Language Requirement

Students whose majors lead to the Bachelor of Arts degree in liberal arts and sciences or the Bachelor of Music degree must satisfy a Foreign Language requirement as indicated below. Speech Communication majors (noncredential candidates) must satisfy a foreign language requirement or an additional mathematics requirement. Refer to the Speech Communication section of this catalog for details. Students whose majors lead to other degrees are not subject to this requirement.

Exclusion: Conversation courses may not be used to meet this requirement.

Native speakers from foreign countries where English is not the principal language and who have finished high school or the equivalent in that country will be considered to have satisfied the Foreign Language requirement and will not be given credit for taking lower division courses in their native language except with advance approval from the department.

A. The Bachelor of Arts degree in liberal arts and sciences and the speech communication major (see exceptions above) require competency in one foreign or American Indian language. Such competency can be demonstrated by:

- Successfully completing the third college semester or fifth college quarter in one foreign language;
- Successfully completing the fourth-year level of high school courses in one foreign language;
- Successfully completing a third-semester equivalent proficiency examination in one foreign language;
- Graduating from high school (where English is not the major language of instruction) in a non-English speaking country. Conversation courses may not be used in satisfying this requirement.

Students who are majoring in **art history, European studies, humanities, and linguistics** should also read the section on Foreign Language requirement under their respective majors for special conditions and limits pertaining to those majors.

Courses offered at San Diego State University which satisfy the Foreign Language requirement are:

Chinese 101, 102, and 201
Classics 101G, 202G, and 303G (Greek)
Classics 101L, 202L, and 304L (Latin)
French 100A, 100B, and 200A or 200B
or 200C or 200D or 200E
German 100A, 100B, and 201 or 202
Hebrew 101, 102, and 201
Italian 100A, 100B, and 200A or 200B
Japanese 111, 112, and 211
Portuguese 101, 301, and 401
Russian 100A, 100B, and 200A
Spanish 101, 102, and 201, or 281 or 282

B. The Bachelor of Music degree (except the specialization in Jazz) requires equivalent knowledge demonstrated in a test of reading knowledge administered by the foreign language department concerned in consultation with the Department of Music or by completion of the appropriate language course as follows:

- Vocalists**—one semester each of French, German, and Italian.
- Music history and literature students**—three semesters of one foreign language chosen from French, German, or Italian.
- All others**—two semesters of one foreign language chosen from French, German, or Italian (except that classical guitar students may substitute Spanish).

VI. Unit Requirements

A. Total unit requirement. The total number of units necessary for a bachelor's degree (excluding courses numbered 99 and below; also courses numbered 397) is as follows:

1. Bachelor of Arts degree in Applied Arts and Sciences	124
2. Bachelor of Arts degree in Liberal Arts and Sciences	124
3. Bachelor of Science degree in Applied Arts and Sciences	128
*4. Bachelor of Science degree in Geological Sciences	132
5. Bachelor of Science degree in Engineering	139-140
6. Bachelor of Music degree	132
7. Bachelor of Vocational Education degree	124

The degree which applies to a particular student is determined by the student's choice of major. Each student should therefore consult the statement of his or her major to establish the applicable degree. The full statement of each major can be found by consulting the Index.

* Applies to all options except General Geology and Paleontology which require 128 units.

B. Upper division unit requirement. The total number of upper division units necessary for a bachelor's degree is as follows:

1. Bachelor of Arts degree in Applied Arts and Sciences	40
2. Bachelor of Arts degree in Liberal Arts and Sciences	45
*3. Bachelor of Science degree in Applied Arts and Sciences (except majors in the College of Business Administration)	45
4. Bachelor of Science degree in Applied Arts and Sciences (all majors in the College of Business Administration)	60
5. Bachelor of Music degree	47-51
6. Bachelor of Vocational Education degree	40

Courses offering upper division credit are those numbered 300 through 599. All units from upper division courses (except those numbered 397 in any department) are applicable to the upper division unit requirement, including units from courses in the major and the minor, and from courses used to satisfy the American Institutions and the General Education requirements.

C. Unit limit totals. The maximum number of special units accepted for a bachelor's degree is as follows:

1. From transferable community and junior college courses	70
2. From credit by examination	30
3. From extension, Open University, and correspondence courses	24
*4. From courses graded credit (Cr)	15
5. From topics courses numbered 296, 496, 596	9
6. From General Studies courses numbered 200 and 400	6
7. From courses numbered below 100, and courses numbered 397	0
8. From Rhetoric and Writing 296	3
9. From Aerospace Studies, Military Science, and Naval Science courses	24
10. From courses numbered 499	9
11. From Music 170-189, 370-389, 569-589 (for non-major and music major for B.A. degree with credential)	8
12. From Music 170-189, 370-389, 569-589 (for music major for B.A. degree)	9
13. From Music 170-189, 370-389, 569-589 (for music major for B.M. degree)	12

* Upper division courses in the major and minor must be taken for a letter grade unless they are offered only credit/no credit.

D. Units in one department.

1. **Bachelor of Arts degree in Liberal Arts and Sciences.** The maximum number of units in any one department, lower and upper division combined, which can be applied toward the Bachelor of Arts degree in Liberal Arts and Sciences is 48, except in those majors outlined below:

- For students majoring in Spanish 49
- For students majoring in social work 51
- For students completing the single subject teaching credential program in French or Spanish 52
- For students completing the single subject teaching credential program in Russian 54
- For students majoring in art with an emphasis in studio arts 57
- For students majoring in dance 64
- Students majoring in journalism may not accumulate more than 33 units of credit in journalism courses. A minimum of 90 units of coursework applicable to the bachelor's degree in journalism must be completed outside the areas of journalism, film, broadcasting, television, photography, and mass communication.

2. **Bachelor of Music degree.** The maximum number of units in upper division music courses acceptable toward the Bachelor of Music degree is 70.

3. **Bachelor of Science degree in Business Administration.** The minimum number of units in business administration and economics courses necessary for a Bachelor of Science degree in any of the ten business majors is 52 (40 percent of 128 units). In addition, the minimum number of units from departments outside of business administration and economics is likewise 52 (40 percent of 128 units).

VII. Residence Requirements

To qualify for a bachelor's degree, each of the following unit requirements must be completed at this university:

- A minimum of 30 units total, of which at least 24 units must be in upper division courses (numbered 300-599).
- At least half of the upper division units required for the major, unless waived by the major department; however, in no case shall the unit total be fewer than 12 upper division units.
- If a minor is completed, a minimum of six upper division units in the minor.
- At least nine units in General Education courses.

Note: Courses taken in extension, Open University, and units earned through credit-by-examination may not be applied to these requirements.

VIII. Grade Point Average Requirements

Four averages, each 2.0 or higher, are required for graduation:

- An average based on all courses attempted at SDSU.
- An average based on all courses attempted at SDSU and transferable courses at other universities, liberal arts colleges, and community colleges.
- An average based on all upper division courses attempted in the major department or required for the major.
- An average based on all units applicable to a minor, if a minor is being completed for the degree.

Information on the computation of averages can be found in the chapter General Regulations under these headings: Grade Point Average, Grades, Incomplete Grade, and Repeated Course.

IX. General Education*

As an important part of your undergraduate education, you will spend approximately one-third of your college years studying in the General Education program. Coursework in General Education is intended to give an enriching perspective to your overall academic program, to complement your major, and to equip you for lifelong understanding, integrated physiological, and psychological development. In recognition of the importance of social integration into a

multicultural society, material on racism, sexism, and nondominant groups in American society is incorporated into General Education courses.

The program has four major objectives: (1) to develop your intellectual capabilities necessary to the enterprise of learning; (2) to introduce you to modes of thought characteristic of diverse academic disciplines; (3) to help you understand the conditions and forces that shape you as a human being and influence your life; and (4) to help you apply critical and informed judgments to the achievements of your own and other cultures.

The program consists of 49 units divided into four sections: I, Communication and Critical Thinking; II, Foundations; III, American Institutions; IV, Explorations. The sections should be taken in sequence so that you master skills needed to understand the academic disciplines of the University, and to prepare you for the more specialized or interdisciplinary courses in Section IV (Explorations).

Each section has specific educational objectives and courses designed to meet these objectives. For example, courses in Section I, Communication and Critical Thinking, are designed to develop your skills in the areas of written and oral communication, and in reasoning. Courses in Section II, Foundations, use the skills developed in Section I, and provide an introduction to various areas of study. The knowledge you gain in Foundations will help prepare you to live in our multicultural society. Section III, American Institutions courses provide you with knowledge of American democracy and enable you to contribute as a responsible and constructive citizen. Section IV, Explorations, **courses are upper division and should not be taken before you reach junior standing (passing 60 units)**. Explorations courses build on the knowledge you gained in the first three sections, and provide more specialized or thematic study in the disciplines included in Foundations.

* Engineering, Liberal Studies-Emphasis in Education, and Nursing majors should refer to the description of their major in the Courses and Curricula section of the General Catalog for a listing of General Education requirements.

Requirements and Limitations

You must complete all requirements in Sections I, II, III, and IV for a total of 49 units. Because you must be a junior (60 units) to satisfy the upper division Section IV requirement, you should not register for upper division GE courses until the semester in which you complete 60 units. Only those courses listed in the General Education areas may be used to satisfy General Education requirements.

Within these 49 units, the following limitations apply:

1. No more than 12 units from one department can be used in General Education.
2. No more than 7 units from one department can be used in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).
3. Courses in your major department cannot be used in Section IV (Explorations).
4. A three-unit General Education course required for your major but not in your major department may be used in Section IV, Explorations **only if** your major requires at least three units more than 24 units for the B.A. degree or at least three units more than 36 units for the B.S. degree.
5. Explorations courses may not be taken sooner than the semester in which you pass 60 units.
6. Credit/No Credit grades cannot be used in Section I (Communication and Critical Thinking) or Section II.A.4. Mathematics/Quantitative Reasoning.
7. Courses numbered 296, 299, 496 (Special Topics), 499 (Special Study), and 500 and above cannot be used in General Education.

Transfer Students—Additional Information

If you fall into one of the following four categories, you must complete only Section IV (Explorations) to satisfy your General Education requirements.

1. You transferred from a California community college and have **completed** the Intersegmental General Education Transfer Curriculum (IGETC), or

2. You transferred from a California community college and are certified as having **completed** the 39 lower division CSU General Education pattern (Sections I, II, and III), or
3. You transferred from another California State University campus and have completed all lower division General Education requirements at the CSU campus, or
4. You transferred from a University of California campus and have completed all lower division General Education requirements at the UC campus.

Your previous college must provide SDSU with proof of completion, either a GE certification or a statement of completion from a University of California campus. Remember, you may not take Explorations courses sooner than the semester in which you complete 60 units.

If you fall into one of the following four categories, you must complete only Section IV, Explorations to fully satisfy your General Education requirements.

1. You transferred from a California community college and have **completed** the Intersegmental General Education Transfer Curriculum (IGETC), or
2. You transferred from a California community college and are certified as having **completed** the 39 lower division CSU general education pattern (Sections I, II, and III), or
3. You transferred from another California State University campus and have completed all lower division general education requirements at the CSU campus, or
4. You transferred from a University of California campus and have completed all lower division general education requirements at the UC campus.

Your previous college must provide SDSU with proof of completion, either a GE certification or statement of completion from a University of California campus. Remember, you may not take Explorations courses sooner than the semester in which you complete 60 units.

If you completed one or more areas of CSU general education pattern at a California community college or another CSU campus, some of the SDSU general education area requirements may be met. If you have transfer courses from a California community college, a CSU or UC campus (but have not completed any general education area), these courses may be used in the appropriate area of the SDSU general education pattern. Consult with an adviser at the University Advising Center to determine which requirements you must complete.

If you transferred from a private college in California or from a non-California college, you must meet the requirements listed below. A transfer course will be used when equivalent to the listed SDSU course.

I. COMMUNICATION AND CRITICAL THINKING (9 units)

You may **not** use Credit/No Credit grades in this section. Complete one course from each of the following three sections.

1. **Oral Communication.** Complete one course.
Africana Studies 140. Oral Communication (3)
Mexican American Studies 111A. Oral Communication (3)
Speech Communication 103. Oral Communication (3)
2. **Composition**
Africana Studies 120. Composition (3)
Linguistics 100. English Composition for International Students (3)
Mexican American Studies 111B. Written Communication (3)
Rhetoric and Writing 100. College Composition (3)
3. **Intermediate Composition and Critical Thinking.**
Africana Studies 200. Intermediate Expository Writing and Research Fundamentals (3)
Linguistics 200. Advanced English for International Students (3)
Philosophy 110. Critical Thinking and Composition (3)
Rhetoric and Writing 200. Intermediate Composition (3)

II. FOUNDATIONS (28 units)

No more than seven units total may be taken in any one department in Foundations and Explorations combined.

A. Natural Sciences and Quantitative Reasoning.

Complete one course from each of the following four sections.

1. **Physical Sciences**
Astronomy 101. Principles of Astronomy (3)
Chemistry 100. Introduction to General Chemistry with Laboratory (4)
+ Geography 101. Principles of Physical Geography (3)
+ Geography 103. Principles of Meteorology (3)
Geological Sciences 100. Dynamics of the Earth (3)
Natural Science 100. Physical Science (3)
Physics 103. Conceptual Physics (3)
Physics 107. Introductory Physics with Laboratory (4)
2. **Life Sciences**
+ Anthropology 101. Human Biocultural origins (3)
Biology 100. General Biology (3)
Biology 101. World of Animals (3)
Biology 130. World of Plants (3)
3. **Laboratory**
Astronomy 109. Astronomy Laboratory (1)
Biology 100L. General Biology Laboratory (1)
Biology 101L. World of Animals Laboratory (1)
Biology 130L. World of Plants Laboratory (1)
Chemistry 100. Introduction to General Chemistry with Laboratory (4)
Geography 101L. Physical Geography Laboratory (1)
Geological Sciences 101. Dynamics of the Earth Laboratory (1)
Physics 107. Introductory Physics with Laboratory (4)
4. **Mathematics/Quantitative Reasoning**
You may **not** use Credit/No Credit grades in this section.
Economics 201. Statistical Methods (3)
Mathematics 118 or higher numbered course (3), excluding computer programming courses.
Philosophy 120. Formal Logic (3)
Political Science 201. Elementary Statistics for Political Science (3)
Psychology 270. Statistical Methods in Psychology (3)
Sociology 201. Elementary Social Statistics (3)

Special Provision for Majors in the Sciences and Related Fields

Some majors require or recommend coursework in astronomy, biology, chemistry, geological sciences, or physics in preparation for the major. If you have declared one of these majors you may substitute those courses for courses listed under either Life Sciences or Physical Sciences (as appropriate) in Section II. A above.

B. Social and Behavioral Sciences. Complete two courses taken from different departments (6 units).

- Africana Studies 101A. Introduction to Africana Studies: Social and Behavioral Sciences (3)
Anthropology 102. Introduction to Cultural Anthropology (3)
Economics 100. Contemporary Economic Problems (3)
Economics 101. Principles of Economics (3)
Economics 102. Principles of Economics (3)
Geography 102. Principles of Cultural Geography (3)
Linguistics 101. Introduction to Language (3)
Political Science 103. Introduction to Comparative Government (3)
Psychology 101. Introductory Psychology (3)
Sociology 101. Introductory Sociology: The Study of Society (3)
Women's Studies 201. Women and the Social Sciences (3)

C. Humanities. Complete a course in each of four of the following five areas (12 units).

1. **Literature**
Comparative Literature 270A. World Literature (3)
Comparative Literature 270B. World Literature (3)
English 220. Introduction to Literature (3)
2. **Art, Classics, Dance, Drama, Humanities, and Music**
Africana Studies 101B. Introduction to Africana Studies: Humanities (3)
American Indian Studies 110. American Indian Heritage (3)
Art 157. Introduction to Art (3)
Art 258. Appreciation and History of Art (3)
Art 259. Appreciation and History of Art (3)
Classics 140. Our Classical Heritage (3)
Dance 181. Introduction to Dance (3)
Drama 100. Theatre and Western Civilization (3)
Drama 120. Heritage of Dramatic Literature (3)
Humanities 101. Introduction to Humanities (3)
Humanities 130. The Jewish Heritage I (3)
Humanities 140. Mythology (3)
Mexican American Studies 100. The Mexican American Heritage (3)
Music 151. Introduction to Music (3)
Women's Studies 205. Women in Western Civilization (3)
3. **History**
History 100. World History (3)
History 101. World History (3)
% History 105. Western Civilization (3)
§ History 106. Western Civilization (3)
4. **Philosophy and Religious Studies**
Philosophy 101. Introduction to Philosophy: Values (3)
Philosophy 102. Introduction to Philosophy: Knowledge and Reality (3)
Philosophy 103. Historical Introduction to Philosophy (3)
Religious Studies 101. World Religions (3)
5. **Foreign Language**
Chinese 101. Elementary Chinese I (5)
Chinese 201. Intermediate Chinese I (5)
Chinese 202. Intermediate Chinese II (5)
Classics 101G. Elementary Greek I (5)
Classics 101L. Elementary Latin I (5)
Classics 120. English from Latin and Greek (3)
Classics 202G. Elementary Greek II (5)
Classics 202L. Elementary Latin II (5)
French 100A. Elementary (5)
French 100B. Elementary (5)
French 200B. Reading French (3)
French 200C. Writing French (3)
French 200D. The Grammar of Spoken French (3)
French 200E. Readings in Commercial French (3)
German 100A. First Course in German (5)
German 100B. Second Course in German (5)
German 202. German for Reading Comprehension (3)
Hebrew 101. Elementary Hebrew I (3)
Hebrew 102. Elementary Hebrew II (4)
Italian 100A. Elementary (5)
Italian 100B. Elementary (5)
Italian 200A. Intermediate Grammar and Composition (3)
Italian 200B. Reading and Speaking Italian (3)
Japanese 111. Elementary Japanese I (6)
Japanese 112. Elementary Japanese II (6)
Japanese 211. Intermediate Japanese I (6)
Japanese 212. Intermediate Japanese II (6)
Linguistics 242. Experiences in Foreign Language Study (3)

- + Only one of these three courses may be taken for General Education credit.
% Not open to students with credit in History 305A.
§ Not open to students with credit in History 305B.

Portuguese 101. Elementary/Intensive Portuguese I (5)
 Russian 100A. First Course in Russian (5)
 Russian 100B. Second Course in Russian (5)
 Russian 200A. Third Course in Russian (5)
 Russian 200B. Fourth Course in Russian (5)
 Russian 211. Intermediate Conversation (3)
 Spanish 101. Elementary (4)
 Spanish 202. Intermediate (4)
 Spanish 211. Intermediate Conversation and Writing (3)
 Spanish 212. Intermediate Conversation and Writing (3)
 Spanish 102. Elementary (4)
 Spanish 201. Intermediate (4)
 Spanish 281. Intermediate Spanish for Spanish Speakers (3)
 Spanish 282. Intermediate Spanish for Spanish Speakers (3)

III. AMERICAN INSTITUTIONS (3 units)

Three units of the six units of coursework which meet the American Institutions graduation requirement may be used in General Education, excluding courses numbered 500 and above.

Students who clear American Institutions with a course that does not meet General Education requirements may select an additional three unit course from Social and Behavioral Sciences II.B. or IV. B.

Refer to section of catalog on American Institutions Requirement for approved sequences.

IV. EXPLORATIONS

Courses in this area must not be taken sooner than the semester in which you achieve upper division standing (60 units passed.) Courses in the major may **not** be used to satisfy upper division General Education.

Complete one course each in areas A, B, and C (9 units). One course must be a course in cultural diversity, designated by an *. (Majors in the departments of Astronomy, Biology, Chemistry, Geological Sciences, Mathematical Sciences, Natural Science, and Physics may replace the area A course with an additional course from area B or C.)

A. Natural Sciences. Complete one course.

- * Anthropology 402. Dynamics of Biocultural Diversity (3)
- Astronomy 301. Cosmology and Gravitational Collapse (3)
- Biology 307. Biology of Sex (3)
- Biology 315. Ecology and Human Impacts on the Environment (3)
- Biology 318. The Origins of Life (3)
- Biology 319. Evolution (3)
- Biology 320. Dinosaurs (3)
- Biology 321. Human Heredity (3)
- Biology 324. Life in the Sea (3)
- Biology 325. How Animals Work (3)
- Biology 330. Natural History of Animals and Plants (3)
- Biology 336. Principles of Human Physiology (3)
- Biology 339. Sociobiology (3)
- Biology 341. The Human Body (3)
- Biology 362. Plants, Medicines, and Drugs (3)
- Biology 454. Conservation of Wildlife (3)
- Engineering 320. Control of the Human Environment (3)
- # General Studies 340. Confronting AIDS (3)
- Geological Sciences 301. Geology of National Parks and Monuments (3)
- Geological Sciences 302. Fossils: Life Through Time (3)
- Geological Sciences 303. Natural Disasters (3)
- Geological Sciences 304. Planetary Geology (3)
- Mathematics 303. History of Mathematics (3)
- Natural Science 315. History of Science I (3)
- Natural Science 316. History of Science II (3)
- Natural Science 317. Development of Scientific Thought (3)
- Natural Science 333. Technology and Human Values (3)
- Oceanography 320. The Oceans (3)
- Physics 301. Energy and Conservation (3)
- Physics 305. Quantum Reality—From Quarks to Quasars (3)

B. Social and Behavioral Sciences. Complete one course.

- * Africana Studies 320. Politics and Economics of Black Urban Development (3)
- * Africana Studies 321. Black Political Participation in America (3)
- * Africana Studies 322. African American Political Thought (3)
- * Africana Studies 325. Public Policy and Afro-American Community (3)
- * Africana Studies 341. Cultural Patterns and African American Identity (3)
- * Africana Studies 380. Blacks in the American Justice System (3)
- * Africana Studies 420. Afro-Americans and the Politics of Urban Education (3)
- * Africana Studies 445. Ethnicity and Social Psychology (3)
- * American Indian Studies 320. American Indians in Contemporary Society (3)
- * Anthropology 350. World Ethnography (3)
- * Anthropology 410. Language in Culture (3)
- * Anthropology 430. Anthropology of Law and Dispute Processing (3)
- * Anthropology 432. Principles of Personality in Culture (3)
- * Anthropology 439. Cultural Comparisons Through Film (3)
- * Anthropology 442. Cultures of South America (3)
- * Anthropology 445. Ethnology of North America (3)
- * Anthropology 446. Southwestern Ethnology (3)
- * Anthropology 448. Cultures of Oceania (3)
- * Anthropology 449. Cultures of Sub-Saharan Africa (3)
- * Anthropology 450. Cultures of India (3)
- * Anthropology 452. Japanese Society (3)
- * Anthropology 453. Cultures of Southeast Asia (3)
- # Community Health Education 353. Sexually Transmitted Diseases (3)
- * Community Health Education 362. International Health (3)
- Economics 330. Comparative Economic Systems (3)
- Economics 464. Economic Problems of Latin America (3)
- Economics 465. Economic Problems of South and East Asia (3)
- Economics 489. Economics and Population (3)
- Education 350. Education in American Society (3)
- General Studies 330. Plagues Through the Ages (3)
- General Studies 420. Disability and Society (3)
- * Geography 312. Culture Worlds (3)
- * Geography 321. United States (3)
- * Geography 323. Middle America (3)
- * Geography 324. South America (3)
- * Geography 336. Europe (3)
- * Geography 337. Republics of the Former Soviet Union (3)
- * Geography 354. Geography of Cities (3)
- * Geography 370. Environmental and Natural Resource Conservation (3)
- * International Security and Conflict Resolution 300. Global Systems (3)
- * International Security and Conflict Resolution 301. Conflict and Conflict Resolution (3)
- * International Security and Conflict Resolution 310. Our Global Future: Values for Survival (3)
- * International Security and Conflict Resolution 320. International Security in the Nuclear Age (3)
- * Journalism 408. Mass Communication and Society (3)
- * Linguistics 354. Language and Computers (3)
- * Linguistics 420. Linguistics and English (3)
- * Mexican American Studies 301. Political Economy of the Chicano People (3)
- * Mexican American Studies 303. Mexican American Community Studies (3)
- * Mexican American Studies 320. Mexican American Life Styles (3)

* Cultural diversity course.

Only one of these two courses may be taken for General Education credit.

- * Mexican American Studies 355. The United States-Mexico International Border (3)
- Political Science 301A. History of Western Political Thought (3)
- Political Science 301B. History of Western Political Thought (3)
- Political Science 302. Modern Political Thought (3)
- Political Science 356. Governments of Continental Europe (3)
- * Political Science 361. Governments and Politics of the Developing Areas (3)
- * Political Science 362. Governments and Politics of East Asia (3)
- * Political Science 363. Governments and Politics of the Middle East (3)
- Political Science 370. Political Violence (3)
- Psychology 330. Developmental Psychology (3)
- Psychology 340. Social Psychology (3)
- Psychology 351. Psychology of Personality (3)
- Recreation 304. Challenges of Leisure (3)
- Recreation 305. Wilderness and the Leisure Experience (3)
- * Social Work 350. Cultural Pluralism (3)
- Social Work 360. Perspectives on Human Behavior and the Social Environment (3)
- Sociology 320. Sex/Gender Roles in American Society (3)
- Sociology 335. Mass Communication and Popular Culture (3)
- Sociology 338. Sociology of Religion (3)
- Sociology 350. Population and Contemporary Issues (3)
- Sociology 352. Contemporary Social Problems (3)
- * Sociology 355. Minority Group Relations (3)
- Sociology 410. Social Psychology: Mind, Self, and Society (3)
- Sociology 421. The American Family and Its Alternatives (3)
- Sociology 430. Social Organization (3)
- Sociology 450. Social Change (3)
- * Speech Communication 475. Intercultural Communication (3)
- * Women's Studies 310. Women in Cross-Cultural Perspective (3)
- * Women's Studies 320. Socialization of Women (3)
- * Women's Studies 325. Psychology of Women (3)
- * Women's Studies 370. Women and the Law (3)
- * Women's Studies 375. Sex, Power, and U.S. Politics (3)
- * Women's Studies 485. Women's Work (3)

C. Humanities. Complete one course.

1. Literature

- * Africana Studies 365. African American Literature (3)
- * Africana Studies 460. Black Images in Western Literature (3)
- * Africana Studies 463. Black Literatures of the World (3)
- * Africana Studies 464. Caribbean Literature (3)
- * American Indian Studies 300. American Indian Oral Literature (3)
- * American Indian Studies 430. American Indian Poetry and Fiction (3)
- Classics 303L. Readings in Latin Prose (3)
- Classics 304G. Readings in Greek Poetry (3)
- Classics 320. Classical Literature (3)
- Comparative Literature 405. The Bible as Literature (3) [Same course as English 405.]
- * Comparative Literature 440. African Literature (3)
- * Comparative Literature 445. Modern Latin American Literature (3)
- * Comparative Literature 455. Classical Asian Literature (3)
- * Comparative Literature 460. Modern Asian Literature (3)
- * Comparative Literature 470. Folk Literature (3) (Maximum GE credit 3 units)

- English 301. The Psychological Novel (3)
- @ English 302. Introducing Shakespeare (3)
- English 405. The Bible as Literature (3) [Same course as Comparative Literature 405.]
- English 494. Modern American Fiction (3)
- French 305A. Survey of French Literature (3)
- French 305B. Survey of French Literature (3)
- German 310. Introduction to German Literature (3)
- Italian 305A. Italian Literature (3)
- * Mexican American Studies 335. Mexican American Literature (3)
- * Mexican American Studies 380. US/Mexico Borderlands Folklore (3)
- Russian 305A. Survey of Russian Literature (3)
- Russian 305B. Survey of Russian Literature (3)
- Spanish 405A. Survey Course in Spanish Literature (3)
- Spanish 405B. Survey Course in Spanish Literature (3)
- Spanish 406A. Survey of Spanish American Literature (3)
- Spanish 406B. Survey of Spanish American Literature (3)
- * Women's Studies 352. Women in Literature (3)

2. Art, Classics, Drama, Humanities, Music

- * Africana Studies 385. African American Music (3)
- * Anthropology 422. Music and Culture (3)
- Classics 330. Classical Drama (3)
- Drama 460A. History of the Theatre (3)
- Drama 460B. History of the Theatre (3)
- French 421. French Civilization (3)
- French 422. Contemporary France (3)
- * French 424. French Cinema and Theory (3)
- * French 425. Francophone Africa in Literature and Film (3)
- Humanities 310. French Civilization (3)
- Humanities 320. German Civilization (3)
- Humanities 330. Russian Civilization (3)
- Humanities 340. Italian Civilization (3)
- Humanities 401. The Medieval Heritage (3)
- Humanities 402. The Renaissance (3)
- Humanities 403. The Baroque and the Enlightenment (3)
- Humanities 404. The Modern European Heritage (3)
- * Humanities 450. Arab-Islamic Civilization (3)
- * Humanities 460. African Civilizations (3)
- Italian 421. Italian Civilization (3)
- * Mexican American Studies 310. Mexican and Chicano Music (3)
- * Mexican American Studies 357. US/Mexico Border: Urbanism and Architecture (3)
- * Music 345. World Music in Contemporary Life (3)
- Music 351A. Musical Masterpieces of the Eighteenth and Nineteenth Centuries (3)
- Music 351B. Musical Masterpieces of the Twentieth Century (3)
- Music 351C. Masterpieces of Grand Opera (3)
- Music 351D. Jazz History and Appreciation (3)
- Spanish 340. Spanish Civilization (3)
- Spanish 341. Spanish American Civilization (3)
- Spanish 342. Mexican Civilization (3)
- Telecommunications and Film 363. International Cinema (3) (Maximum GE credit 3 units)

3. History

- * Africana Studies 470. Comparative History: Afro-American and African Heritage (3)
- * Africana Studies 472. Slavery (3)
- * American Indian Studies 440. American Indian History (3)
- * Anthropology 349. Roots of Civilizations (3)

* Cultural diversity course.

@ English 533 may not be used in place of English 302 for General Education credit.

- * Asian Studies 458, Asian Traditions (3)
 - * Asian Studies 459, Contemporary Asian Cultures (3)
 - Classics 340, Classical Civilization (3)
 - % History 305A, Sources of Western Civilization (3)
 - § History 305B, Sources of Western Civilization (3)
 - History 407A, Modern Europe (3)
 - History 407B, Modern Europe (3)
 - * History 415A, Latin America (3)
 - * History 415B, Latin America (3)
 - * History 420, Asia's Dynamic Traditions (3)
 - * History 421, Asia's Emerging Nations (3)
 - * History 422, Southeast Asian and Filipino Experience in America (3)
 - History 440, The Holocaust and Western Civilization (3)
 - History 441, Environmental Problems in Historical Perspective (3)
 - History 442A, People Out of Our Past (3)
 - History 442B, People Out of Our Past (3)
 - * History 473A, Middle Eastern History from the Rise of Islam to the Present (AD 600-AD 1600) (3)
 - * History 473B, Middle Eastern History from the Rise of Islam to the Present (AD 1600-present) (3)
 - * History 475A, Africa (3)
 - * History 475B, Africa (3)
 - History 480, History of Corporations in the Modern World (3)
 - * History 488, Modern Jewish History (3)
 - Linguistics 410, History of English (3)
 - * Mexican American Studies 350A, Chicano History (3)
 - * Mexican American Studies 350B, Chicano History (3)
 - * Mexican American Studies 375, US/Mexico Border History (3)
 - * Mexican American Studies 376, Mexican American Culture and Thought (3)
 - * Women's Studies 340, Women in Modern European History (3)
- 4. Philosophy and Religious Studies**
- * American Indian Studies 470, Roots of Indian Tradition (3)
 - Anthropology 424, Primitive Religion (3)
 - Classics 310, Classical Mythology (3)
 - Philosophy 305, Classics of Western Philosophy (3)
 - Philosophy 310, Philosophy and Human Nature (3)
 - Philosophy 329, Social Ethics (3)
 - Philosophy 330, Medical Ethics (3)
 - Philosophy 332, Environmental Ethics (3)
 - Philosophy 333, Philosophy of Technology (3)
 - Philosophy 334, Philosophy of Literature (3)
 - * Philosophy 351, Chinese Philosophy (3)
 - Religious Studies 301, Hebrew Scriptures (3)
 - Religious Studies 305, The New Testament (3)
 - Religious Studies 320, Judaism (3)
 - Religious Studies 325, Christianity (3)
 - * Religious Studies 340, Islam (3)
 - Religious Studies 350, Dynamics of Religious Experience (3)
 - Religious Studies 353, Religion and Psychology (3) (Maximum GE credit 3 units)
 - Religious Studies 354, Religion and Society (3)
 - Religious Studies 363, Religion and the Sciences (3)
 - * Religious Studies 401, Religions of India (3)
 - * Religious Studies 403, Religions of the Far East (3)

* Cultural diversity course.

% Not open to students with credit in History 105.

§ Not open to students with credit in History 106.

5. Foreign Language

- Classics 303G, Readings in Greek Prose (3)
- Classics 304L, Readings in Latin Poetry (3)
- French 301, Advanced Grammar and Composition (3)
- French 302, Translation and Stylistics (3)
- Italian 301, Advanced Oral and Written Composition (3)
- Japanese 311, Third Year Japanese I (4)
- Japanese 312, Third Year Japanese II (4)
- Portuguese 301, Intermediate Portuguese Grammar and Composition (3)
- Portuguese 401, Advanced Portuguese Grammar and Composition (3)
- Russian 301, Advanced Grammar and Composition (3)

Application for Graduation

Graduation is not automatic upon the completion of requirements. Students who intend to graduate must take the initiative. When they believe they are eligible, they should file an application with the Office of Admissions and Records. Deadlines by which applications must be received in Admissions and Records are published each year in the fall semester Class Schedule. An application fee of \$32.00, which is nonrefundable, is required.

All requirements must be completed by the graduation date. Candidates for graduation are not eligible to register for terms subsequent to the graduation date unless an application for readmission as a postbaccalaureate student has been filed with Admissions and Records.

Students not completing requirements must cancel the current application at the earliest possible date and reapply for graduation during the appropriate filing period. Candidates who wish to change their projected graduation date between May and August may do so by submitting a Graduation Term Transfer Form. Changes between December and May or August graduation dates require a new application. Both term transfer and reapplication require a \$16 graduation evaluation and diploma fee.

Graduation requirements will be determined by the continuous enrollment regulations outlined in this catalog. After the degree is granted no changes can be made to the undergraduate record.

Election of Regulations for Graduation

An undergraduate student remaining in attendance in regular session at any California State University campus, any California community college, or any combination of California community colleges and campuses of The California State University may, for purposes of meeting graduation requirements, elect to meet the requirements in effect at San Diego State University either at the time the student began such attendance or at the time of entrance to the campus or at the time of graduation. Substitutions for discontinued courses may be authorized or required by the proper authorities.

"Attendance" is defined here as attendance in at least one semester or two quarters within a calendar year. Absence due to an approved educational leave or for attendance at another accredited institution of higher learning shall not be considered an interruption in attendance if the absence does not exceed two years. When students change or declare their majors, they must adopt the requirements of the major and any minors in effect at that time.

Commencement

Commencement exercises are held once a year at the end of the spring semester for students who were graduated at mid-year, those graduating at the end of the spring semester, and undergraduate students who expect to complete requirements for graduation in the summer session. The President of the University, by the authority of the Trustees and on recommendation of the faculty, awards the degrees. Brochures giving details regarding the exercises are mailed to prospective participants in early May.

Curricula Summary

Summary of Curricula Offered

Majors	Applied Arts and Sciences		Liberal Arts and Sciences	Graduate Curricula		
	BA	BS	BA	MA, MFA	MS	PhD
Accountancy	-	-	-	-	MS	-
# Accounting	-	BS	-	-	-	-
Aerospace engineering	-	BS	-	-	MS	-
Afro-American studies	-	-	BA	-	-	-
American studies	-	-	BA	-	-	-
Anthropology	-	-	BA	MA	-	-
Applied mathematics	-	-	-	-	MS	-
Art	BA	-	BA	MA, MFA	-	-
Asian studies	-	-	BA	MA	-	-
Astronomy	-	BS	BA	-	MS	-
Biology	-	BS	BA	MA	MS	PhD
Business administration	-	-	-	MBA	MS	-
Business administration/Latin American studies	-	-	-	MBA/MA	-	-
Chemical physics	-	-	-	-	-	-
Chemistry	-	BS	-	-	MS	PhD
Child development	-	BS	BA	MA	MS	-
City planning	-	-	-	-	MCP	-
Civil engineering	-	BS	-	-	MS	-
Classics	-	-	BA	MA	-	-
Communicative disorders	-	-	BA	-	-	-
Comparative literature	-	-	BA	-	-	-
Computer science	-	BS	-	-	MS	-
Counseling	-	-	-	-	MS	-
Creative writing	-	-	-	-	MS	-
Criminal justice administration	-	BS	-	MFA	-	-
Dance	-	-	-	-	-	-
Drama	BA	-	BA	MA, MFA	-	-
Ecology	-	-	-	-	-	-
Economics	-	-	BA	MA	-	PhD
Education	-	-	-	MA	-	-
Electrical engineering	-	BS	-	MA	-	PhD
Engineering	-	-	-	-	MS	-
English	-	-	-	-	-	PhD
Environmental health	-	BS	BA	MA	-	-
European studies	-	-	-	-	-	-
# Finance	-	BS	BA	-	-	-
# Financial services	-	BS	-	-	-	-
Foods and nutrition	-	BS	-	-	-	-
French	-	-	-	-	-	-
Geography	-	-	BA	MA	-	-
Geological sciences	-	BS	BA	MA	-	PhD
German	-	-	-	-	-	-
Gerontology	-	-	BA	-	MS	-
Health science	-	BS	BA	-	-	-
History	-	-	-	-	-	-
Humanities	-	-	BA	MA	-	-
# Information systems	-	BS	BA	-	-	-
International business	-	-	-	-	-	-
International security and conflict resolution	-	-	BA	-	-	-
Japanese	-	-	BA*	-	-	-
Journalism	-	-	BA*	-	-	-
Latin American studies	-	-	BA	-	-	-
Liberal arts	-	-	BA	MA	-	-
Liberal studies	-	-	BA	MA	-	-
Linguistics	-	-	BA	-	-	-
# Management	-	BS	BA	MA	-	-
# Marketing	-	BS	-	-	-	-
Mass communication	-	BS	-	-	-	-
Mathematics	-	BS	-	-	MS	-
Mathematics and science education	-	-	BA	MA	-	-
Mechanical engineering	-	BS	-	-	MS	PhD
Mexican American studies	-	-	-	-	-	-
Microbiology	-	BS	BA	-	-	-
Music	BA	BS	BA	-	MS	-
Nursing	-	BM	-	MA	MM	-
Nutritional sciences	-	BS	-	-	MS	-
# Operations management	-	-	-	-	MS	-
Philosophy	-	BS	-	-	-	-
Physical education	-	-	-	-	-	-
Physical science	-	BS	BA	MA	-	-
Physics	-	BS	-	MA	MS	-
Political science	BA	BS	-	-	-	-
Psychology	-	-	BA	MA	MS	-
Public administration	-	-	BA	MA	-	-
Public health	BA	-	-	-	MS	PhD
Radiological health physics	-	-	-	-	MPA	PhD
# Real estate	-	-	-	-	MPH, MS	-
Recreation administration	-	BS	-	-	MS	-
Rehabilitation counseling	-	BS	-	-	-	-
Religious studies	-	-	-	-	-	-
Russian	-	-	BA	-	MS	-

An emphasis within the B.S. in Business Administration.
* Subject to systemwide approval.

Summary of Curricula Offered – continued

Majors	Applied Arts and Sciences		Liberal Arts and Sciences	Graduate Curricula		
	BA	BS	BA	MA, MFA	MS	PhD
Russian and East European studies	-	-	BA	-	-	-
Social science	-	-	BA	-	-	-
Social work	-	-	BA	-	MSW	-
Social work/Public health	-	-	-	-	MSW/MPH	-
Sociology	-	-	BA	MA	-	-
Spanish	-	-	BA	MA	-	-
Special major	-	-	-	MA	MS	-
Speech communication	BA	-	-	MA	-	-
Statistics	-	BS*	-	-	MS	-
Telecommunications	-	-	BA	MA	-	-
Television-film production	-	BS	-	-	-	-
Urban studies	-	-	BA	-	-	-
Vocational education	-	BVE	-	-	-	-
Women's studies	-	-	BA	MA*	-	-

* Subject to systemwide approval.

Emphases, Options, and Concentrations

An emphasis, option, or concentration is defined as an aggregate of courses within a degree major designed to give a student specialized knowledge, competence, or skill. Completion of an emphasis, option, or concentration is noted on the student's transcript and diploma for undergraduate students.

BACCALAUREATE MAJORS

Art (BA, Liberal Arts and Sciences)

Emphases:
art history
studio arts

Art (BA, Applied Arts and Sciences)

Emphases:
applied design
environmental design
graphic design
interior design
painting, printmaking, and photography
sculpture

Biology (BS, Applied Arts and Sciences)

Emphases:
cellular and molecular biology
ecology
evolution and systematics
marine biology
zoology

Chemistry (BS, Applied Arts and Sciences)

Emphasis:
biochemistry

Classics (BA, Liberal Arts and Sciences)

Emphases:
classical humanities
classical language

Drama (BA, Applied Arts and Sciences)

Emphases:
children's drama
design for drama
design for television and film
performance

Geography (BA, Liberal Arts and Sciences)

Emphases:
methods of geographical analysis

natural resource and environmental
general geography
physical geography
urban and regional analysis

Geological Sciences (BS, Applied Arts and Sciences)

Emphases:
engineering geology
geochemistry
geology
geophysics
hydrogeology
marine geology
paleontology

Health Science (BS, Applied Arts and Sciences)

Emphasis:
community health education

Humanities (BA, Liberal Arts and Sciences)

Emphasis:
European humanities

International Business (BA, Liberal Arts and Sciences)

Emphases:
language
regional/cultural studies

Journalism (BA, Liberal Arts and Sciences)

Emphases:
advertising
news-editorial
public relations
radio-TV news

Liberal Studies (BA, Liberal Arts and Sciences)

Emphases:
three departments
education

Mathematics (BS, Applied Arts and Sciences)

Emphases:
applied mathematics
computer science
statistics

Microbiology (BS, Applied Arts and Sciences)

Emphasis:
medical technology and public health microbiology

Public Administration (BA, Applied Arts and Sciences)

Emphasis:
city planning

Recreation Administration (BS, Applied Arts and Sciences)

Emphases:
outdoor recreation
recreation systems management
recreation therapy

Social Science (BA, Liberal Arts and Sciences)

Emphases:
Africa and the Middle East
environment

GRADUATE MAJORS

Art (MA)

Concentrations:
studio arts
art history

Biology (MA or MS)

Concentrations:
ecology
molecular biology
physiology
plant sciences
systematics evolutionary biology

Business Administration (MS)

Concentrations:
finance
financial and tax planning
human resource management
information systems
international business
management
marketing
production and operations
management
real estate
taxation
total quality management

Communicative Disorders (MA)

Concentrations:
speech-language pathology
audiology
education of the deaf
communicative sciences

Drama (MFA)

Concentrations:
acting
design and technical theatre
musical theatre

Education (MA)

Concentrations:
counseling
educational leadership
educational research
educational technology
elementary curriculum and instruction
policy studies in language and cross-cultural education
reading education
secondary curriculum and instruction
special education

Geography (MA)

Concentrations:
resources and environmental quality
transportation

Nursing (MS)

Concentrations:
community health nursing
critical care nurse specialist
nursing systems administration

Psychology (MS)

Concentrations:
clinical psychology
* industrial and organizational psychology

Public Administration (MPA)

Concentrations:
city planning
criminal justice administration
public telecommunications
administration

Public Health

Concentrations (MPH):
biometry
environmental health
epidemiology
health promotion
health services administration
maternal and child health
occupational health

Concentrations (MS):
environmental health science
industrial hygiene
toxicology

Statistics (MS)

Concentration:
biostatistics

* Application for admission to this concentration has been suspended for the 1995-96 academic year.

Credentials Offered**Teaching Credentials**

- Adapted physical education
- Multiple subject
- Multiple subject cross-cultural; language and academic development (CLAD) emphasis
- Multiple subject bilingual cross-cultural language and academic development (BCLAD) emphasis: Spanish
- Single subject
- Single subject cross-cultural, language, and academic development (CLAD) emphasis
- Single subject bilingual cross-cultural language and academic development (BCLAD) emphasis: Spanish

Specialist Credentials

- Bilingual/cross-cultural
- Reading/language arts
- Resource specialist certificate of competence
- Special education:
 - Communication handicapped
 - Gifted
 - Learning handicapped
 - Physically handicapped
 - Severely handicapped

Service Credentials

- Administrative
- Clinical or rehabilitative
- Health services:
 - school nurse
- Pupil personnel:
 - school counseling
 - school psychology
 - school social work

Minors for the Bachelor's Degree

- Accounting
- Aerospace studies
- African studies
- Afro-American studies
- American Indian studies
- American studies
- Anthropology
- Art
- Art history
- Asian studies
- Astronomy
- Biology
- Chemistry
- Child development
- Chinese
- Classics
- Communicative disorders
- Comparative literature
- Computer science
- Dance
- Drama
- Economics
- Educational technology

- Energy studies
- Engineering
- English
- Environment and society
- European studies
- Finance
- French
- Geography
- Geological sciences
- German
- Gerontology
- Health science
- History
- History of science and technology
- Humanities
- Information systems
- Italian
- Japanese
- Judaic studies
- Journalism
- Latin American studies
- Linguistics
- Management
- Marketing
- Mathematics
- Mexican American studies
- Middle East studies
- Military science
- Music
- Naval science
- Oceanography
- Philosophy
- Physical education
- Physics
- Political science
- Portuguese
- Production and operations management
- Psychology
- Public administration
- Real estate
- Recreation
- Religious studies
- Russian
- Small business management (Imperial Valley Campus only)
- Social work
- Sociology
- Spanish
- Speech communication
- Telecommunications and film
- United States-Mexico border studies
- Women's studies

Special Curricula**Preprofessional Curricula**

- Pre dental
- Pre legal
- Pre medical
- Pre veterinary

Military Curricula

- Aerospace studies (AFROTC)
- Military science (ROTC)
- Naval science (NROTC)

Certificate Programs (nondegree)

- Certificate in accounting
- Certificate in applied linguistics and English as a second language (ESL)
- Certificate in art (Imperial Valley campus only)
- Certificate in bilingual (Spanish) special education
- Certificate in business administration (Imperial Valley campus only)
- Certificado de Español Comercial
- Certificat pratique de français commercial et économique
- Certificate in children's literature
- Certificate in cross-cultural language and academic development (CLAD)
- Certificate in early intervention specialist
- Certificate in exercise leadership
- Certificate in family life education
- Certificate in geographic information systems
- Certificate in human services paraprofessional
- Certificate in instructional software design
- Certificate in instructional technology
- Certificate in introductory mathematics
- Certificate in personal financial planning
- Certificate in preventive medicine residency
- Certificate in professional services bilingual/multicultural
- Certificate in public administration (Imperial Valley campus only)
- Certificate in recombinant DNA technology
- Certificate in rehabilitation administration
- Certificate in single subject mathematics
- Certificate in court interpreting (Imperial Valley campus only)
- Certificate in Spanish translation studies
- Certificate in supported employment and transition specialist
- Certificate in teaching the emotionally disturbed/behaviorally disordered
- Certificate in technical and scientific writing
- Certificate in United States-Mexico border studies
- Certificate in workforce education and lifelong learning

The following programs are available through Extension only.

- Certificate in applied gerontology
- Certificate in construction practices
- Certificate in fire protection administration
- Certificate in government contract management
- Certificate in human resources management
- Certificate in materials management

Major and Credential Codes***MAJOR CODE KEY:**

- U = Undergraduate
- G = Graduate
- + = Emphasis within another bachelor's degree
- ¢ = Concentration within another master's degree

MAJOR

- Accountancy
- + Accounting
- Afro-American Studies
- American Studies
- Anthropology
- Applied Mathematics
- Art
- +¢ Art History
- + Graphic Design
- + Interior Design
- Art - MFA
- Asian Studies
- Astronomy
- Biology
- ¢ Botany
- Business Administration
- Business Administration and Latin American Studies (concurrent program)
- +¢ Chemical Physics
- Chemistry
- + Biochemistry
- Child Development
- City Planning
- Classics
- Clinical Psychology
- Communicative Disorders
- Comparative Literature
- Computer Science
- Counseling
- Creative Writing
- ¢ Criminal Justice Administration
- Precriminal Justice Administration
- Dance
- Drama
- Drama - MFA
- ¢ Ecology
- Economics
- Education
- ¢ Educ. Administration & Supervision
- ¢ Educational Research
- ¢ Educational Technology
- ¢ Elementary Curriculum & Instruction
- ¢ Policy Studies in Language and Cross-Cultural Education
- ¢ Educational Leadership
- ¢ Reading Education
- ¢ Secondary Curriculum & Instruction
- ¢ Special Education
- Engineering
- Aerospace Engineering
- Civil Engineering
- Electrical Engineering
- Mechanical Engineering
- English
- Environmental Health
- European Studies
- +¢ Finance
- +¢ Financial Services
- Foods and Nutrition
- French
- Geography
- Geological Sciences
- German

MAJOR CODE

- 05021 G
- 05021 U
- 22111 U
- 03131 U
- 22021 U & G
- 17031 G
- 10021 U & G
- 10031 U & G
- 10091 U
- 02031 U
- 10022 G
- 03011 U & G
- 19111 U & G
- 04011 U & G
- 04021 G
- 05011 U & G
- 49061 G
- 19081 U
- 19051 U & G
- 19051 U
- 08231 U & G
- 02061 G
- 15041 U
- 20031 G
- 12201 U & G
- 15031 U
- 07011 U & G
- 08261 G
- 15071 G
- 21051 U & G
- 21050 U
- 10081 U
- 10071 U & G
- 10072 G
- 04201 G
- 22041 U & G
- 08011 G
- 08271 G
- 08241 G
- 08992 G
- 08021 G
- 08994 G
- 08061 G
- 08301 G
- 08031 G
- 08081 G
- 09021 U & G
- 09081 U & G
- 09091 U & G
- 09101 U & G
- 15011 U & G
- 12142 U
- 03101 U
- 05041 U & G
- 05043 U & G
- 13061 U
- 11021 U & G
- 22061 U & G
- 19141 U & G
- 11031 U

MAJOR

- Gerontology
- Health Science
- History
- Humanities
- ¢ Human Resource Management
- Industrial Technology
- +¢ Information Systems
- Interdisciplinary Studies
- ¢ International Business
- ¢ Preinternational Business
- Journalism
- Prejournalism
- Latin American Studies
- Liberal Arts
- + Liberal Studies-In Three Departments
- Liberal Studies-Emphasis in Education
- Liberal Studies-Pre-emphasis in Education
- Linguistics
- +¢ Management
- +¢ Marketing
- Mass Communication
- Mathematics-B.A. degree
- Mathematics-B.S. degree
- Mathematics and Science Education
- Mexican American Studies
- Microbiology
- ¢ Molecular Biology
- Music
- Music-Performance
- Music-Liberal Arts
- Nursing
- Prenursing
- Nutritional Sciences
- Philosophy
- Physical Education
- Physical Science
- Exercise Physiology
- Physics
- ¢ Physiology
- Political Science
- +¢ Production Operations Management
- Psychology
- Public Administration
- Prepublic Administration
- Public Health
- Radiological Health Physics
- +¢ Real Estate
- Recreation Administration
- Rehabilitation Counseling
- Religious Studies
- Russian
- Russian and East European Studies
- Social Science
- Social Work
- Presocial Work
- Social Work & Public Health (concurrent prog.)
- Sociology
- Spanish
- Speech Communication
- Statistics
- ¢ Systematics and Evolutionary Biology (Zoology)
- ¢ Taxation
- Telecommunications
- Television-Film Production
- Undeclared
- Urban Studies
- Vocational Education
- Women's Studies

MAJOR CODE

- 21043 U
- 12011 U
- 22051 U & G
- 15991 U
- 05151 U
- 08394 U
- 07021 U & G
- 49993 G
- 05131 U & G
- 80000 U
- 06021 U
- 06020 U
- 03081 U & G
- 49017 G
- 49011 U
- 49015 U
- 49012 U
- 15051 U & G
- 05061 U & G
- 05091 U & G
- 06011 G
- 17011 U & G
- 17031 U
- 08997 G
- 22131 U
- 04111 U & G
- 04161 G
- 10052 U
- 10041 U & G
- 10051 G
- 12031 U & G
- 12030 U
- 13061 G
- 15091 U & G
- 08351 U & G
- 19011 U
- 08355 G
- 19021 U & G
- 04101 G
- 22071 U & G
- 05064 U & G
- 20011 U & G
- 21021 U & G
- 21020 U
- 12141 G
- 12251 G
- 05111 U & G
- 21031 U
- 12221 G
- 15101 U
- 11061 U
- 03071 U
- 22011 U
- 21041 U & G
- 21040 U
- 12991 G
- 22081 U & G
- 11051 U & G
- 15061 U & G
- 17021 U & G
- 04071 G
- 05022 G
- 06031 U & G
- 06031 U
- 00000 U
- 22141 U
- 08395 U
- 49991 U

* See following page for NUMERICAL LISTING OF MAJOR CODES and CREDENTIAL CODES.

NUMERICAL LISTING OF MAJOR CODES

MAJOR CODE	MAJOR
00000 U	Undeclared
02031 U	+ Interior Design
02061 G	City Planning
03011 U & G	Asian Studies
03071 U	Russian and East European Studies
03081 U & G	Latin American Studies
03101 U	European Studies
03131 U	American Studies
04011 U & G	Biology
04021 G	¢ Botany
04071 G	¢ Systematics Evolutionary Biology (Zoology)
04101 G	¢ Physiology
04111 U & G	¢ Microbiology
04161 G	¢ Molecular Biology
04201 G	¢ Ecology
05011 U & G	Business Administration
05021 G	Accountancy
05021 U	+ Accounting
05022 G	¢ Taxation
05041 U & G	+ ¢ Finance
05043 U & G	+ ¢ Financial Services
05061 U & G	+ ¢ Management
05064 U	+ Operations Management
05064 G	¢ Production Operations Management
05091 U & G	+ ¢ Marketing
05111 U & G	+ ¢ Real Estate
05131 U & G	¢ International Business
05151 G	¢ Human Resource Management
05151 G	¢ Personnel & Industrial Relations
06011 G	Mass Communication
06020 U	Prejournalism
06021 U	Journalism
06031 U & G	Telecommunications
06031 U	Television-Film Production
07011 U & G	Computer Science
07021 U & G	+ ¢ Information Systems
08011 G	Education
08021 G	¢ Elementary Curriculum & Instruction
08031 G	¢ Secondary Curriculum & Instruction
08061 G	¢ Educational Leadership
08081 G	¢ Special Education
08231 U & G	Child Development
08241 G	¢ Educational Research
08261 G	Counseling
08271 G	¢ Educ. Administration & Supervision
08301 G	¢ Reading Education
08351 U & G	Physical Education
08355 G	Exercise Physiology
08394 U	Industrial Technology
08395 U	Vocational Education
08992 G	¢ Educational Technology
08994 G	¢ Policy Studies in Language and Cross-Cultural Education
08997 G	Mathematics and Science Education
09021 U & G	Aerospace Engineering
09081 U & G	Civil Engineering
09091 U & G	Electrical Engineering
09101 U & G	Mechanical Engineering
10021 U & G	Art
10022 G	Art - MFA
10031 U & G	+ ¢ Art History
10041 U & G	Music-Performance
10051 G	Music-Liberal Arts
10052 U	Music
10071 U & G	Drama
10072 G	Drama - MFA
10081 U	Dance
10091 U	+ Graphic Design
11021 U & G	French
11031 U	German
11051 U & G	Spanish
11061 U	Russian
12011 U	Health Science
12030 U	Prenursing
12031 U & G	Nursing
12141 G	Public Health
12142 U	Environmental Health

MAJOR CODE

12201 U & G	Communicative Disorders
12221 G	Rehabilitation Counseling
12251 G	Radiological Health Physics
12991 G	Social Work & Public Health (concurrent prog.)
13061 U	Foods and Nutrition
13061 G	Nutritional Sciences
15011 U & G	English
15031 U	Comparative Literature
15041 U	Classics
15051 U & G	Linguistics
15061 U & G	Speech Communication
15071 G	Creative Writing
15091 U & G	Philosophy
15101 U	Religious Studies
15991 U	Humanities
17011 U & G	Mathematics-B.A. degree
17021 U & G	Statistics
17031 G	Applied Mathematics
17031 U	Mathematics-B.S. degree
19011 U	Physical Science
19021 U & G	Physics
19051 U & G	Chemistry
19051 U	Biochemistry
19081 U	Chemical Physics
19111 U & G	Astronomy
19141 U & G	Geological Sciences
20011 U & G	Psychology
20031 G	Clinical Psychology
21020 U	Prepublic Administration
21021 U & G	Public Administration
21031 U	Recreation Administration
21040 U	Presocial Work
21041 U & G	Social Work
21043 U	Gerontology
21050 U	Precriminal Justice Administration
21051 U & G	¢ Criminal Justice Administration
22011 U	Social Science
22021 U & G	Anthropology
22041 U & G	Economics
22051 U & G	History
22061 U & G	Geography
22071 U & G	Political Science
22081 U & G	Sociology
22111 U	Afro-American Studies
22131 U	Mexican American Studies
22141 U	Urban Studies
49011 U	+ Liberal Studies-In Three Departments
49012 U	Liberal Studies-Pre-emphasis in Education
49015 U	Liberal Studies-Emphasis in Education
49017 G	Liberal Arts
49061 G	Business Administration and Latin American Studies (concurrent program)
49991 U	Women's Studies
49993 G	Interdisciplinary Studies
80000 U	¢ Preinternational Business

CODES FOR CREDENTIALS

CREDENTIAL	CREDENTIAL CODE
Single Subject Instruction	00100
Multiple Subject Instruction	00200
Reading Specialist	00410
Bilingual/Cross-cultural Specialist	00440
Special Education: Communication Handicapped	00461
Special Education: Physically Handicapped	00462
Special Education: Learning Handicapped	00463
Special Education: Severely Handicapped	00464
Special Education: Gifted	00465
Administrative Services	00500
Health Services	00600
Counseling (Pupil Personnel Services)	00800
School Counseling	00900
School Psychology	00950
Social Work (Pupil Personnel Services)	00980
Clinical or Rehabilitative Services	
School Psychology	
Adapted Physical Education Emphasis	

Courses
and
Curricula

Courses and Curricula

Numbering of Courses

Courses numbered 80 through 99 are nonbaccalaureate level and are not acceptable for a bachelor's degree; those numbered 100 through 299 are in the lower division (freshman and sophomore years); those numbered 300 through 499 are in the upper division (junior and senior years) and intended for undergraduates; those numbered 500 through 599 are in the upper division and are also acceptable for advanced degrees when taken by students admitted to graduate standing; those numbered 600 through 799 are graduate courses; and those numbered 800 through 899 are doctoral courses. Courses numbered at the 900 level are reserved for graduate courses in certain professional curricula as part of advanced certificate, credential, and licensure programs and are specifically intended for students admitted to the University with post-baccalaureate classified standing. Courses numbered at the 900 level are not applicable to other graduate programs.

Courses numbered X-01 through X-79 and X-397 are professional advancement units offered only through Extension to meet specific academic needs of community groups and are not acceptable toward an undergraduate or graduate degree. Courses X-01 through X-49 are designated as lower division and X-50 through X-79 and X-397 are designated as upper division.

Undergraduate Enrollment in 600-, 700-, and 800-Numbered Courses

1. Student must obtain permission of the instructor.
2. Student must be a senior in good standing and have a B (3.0) GPA average.
3. Undergraduate enrollments may not cause the exclusion of a qualified student in a graduate course.

The Unit or Credit Hour

In the listing of courses that follow, figures in parentheses indicate the unit value of the course. One unit or credit hour represents 50 minutes of recitation or lecture, together with the required preparation, or three hours of laboratory work or two hours of activities, each week for a semester.

Prerequisites for Undergraduate Courses

Students must complete a course prerequisite (or its equivalent) prior to registering for the course to which it is prerequisite. Students who have not completed the stated prerequisite must notify the instructor by the end of the second week of class in order for the instructor to determine if the student has completed the equivalent of the prerequisite.

Prerequisites will be enforced in all sections of courses listed in the Prerequisite Enforcement and Provisional Enrollment section of the current Class Schedule and Information Handbook. Enrollment will depend on the student's verification of completion of prerequisites.

Semester in Which Courses Are Offered

In the listing of courses that follows, Roman numeral I indicates a course offered in the fall semester. Roman numeral II indicates a course offered in the spring semester. An "S" indicates a course offered in the summer.

Following the course title are designations of credit and the semester in which the course is offered.

Examples:

- (3) I Three units. Offered in fall semester.
(3) II Three units. Offered in spring semester.
(3-3) Three units each semester. Year course normally beginning in fall semester.
(3-3) I, II Three units each semester. Year course beginning either semester.

Although the University fully expects to carry out the arrangements planned in the list of courses, it reserves the right to make changes. Classes in which the enrollment does not come up to the minimum number set by the Trustees of The California State University may not be offered or may be postponed.

Common Courses

Experimental or Selected Studies or Topics or Workshop Courses (96, 296, 496, 596)

Courses offered by departments under the numbers 296, 496, 596 are subject to the following conditions: no more than nine units of such courses shall be applicable toward a bachelor's degree; such courses may be applicable toward the minor or toward preparation for the major only with the approval of the department chair.

Topics courses may be offered by the departments under the number 96. These courses are nonbaccalaureate level and are not acceptable for a bachelor's degree or General Education.

Special Study (299, 499, 599)

These courses provide opportunity for individual study of a subject not offered in the regular curriculum. The student does this outside of the classroom and must secure the consent of an instructor to supervise the study *before* registering for the course. The student should discuss the topic with the instructor and come to an understanding on the amount of time to be devoted to the topic, the credit to be earned, and the mode of investigation and report to be used. As with regular courses, the expectation is that the student will devote three hours per week to the subject for each unit of credit. A maximum combined credit of nine units of 299, 499, and 599 is applicable to a bachelor's degree. Maximum credit of six units of 499 in one department applicable to a bachelor's degree.

A 499 or 599 number cannot be used to offer lower division coursework. Also, 299, 499, and 599 cannot be used to extend internships, to award academic credit in place of pay, for work experience, or for class-sized groups.

Credit/No Credit Courses

Courses which are offered for credit/no credit are indicated by the symbols Cr/NC in the course title.

Academic Skills

Refer to "General Mathematics Studies" or "Rhetoric and Writing" in this section of the catalog.

OFFICE: Student Services 2411

TELEPHONE: (619) 594-5310

A Member of the American Assembly of Collegiate Schools of Business.

Faculty

Emeritus: Brodshatzer, Dodds, Ferrel, Harned, Meier, Snudden
Director: Whittington

The Vern E. Odmark Chair in Accountancy: Chow

The KPMG Peat Marwick/Charles W. Lamden Professor of Taxation: Whittenburg

The Price Waterhouse Alumni Professor of Accountancy: Capettini

Professors: Bailey (Dean), Barnett, Butler, Grudnitski, Lightner, K., Meigs, Oestreich, Samuelson, Toole, Whittington, Williamson, Wong-Boren

Associate Professors: Houston, Joh, Lightner, S., Pfeiffer, Venable
Lecturer: Snyder

Offered by the Department

Master of Business Administration.

Master of Science degree in accountancy.

Major in accounting with the B.S. degree in business administration.

Teaching major in business for the single subject teaching credential.

Minor in accounting.

Certificate in accounting.

The Vern E. Odmark Chair in Accountancy

Established in recognition of Dr. Vern Odmark for his 25 years of teaching at SDSU, basic support is provided by contributions from friends, alumni, and corporations, including many major national accounting firms. The chair acknowledges the University's objective of continuing the high standards of teaching excellence and professionalism that characterized Odmark's career.

Dr. Chee W. Chow has held the position since its creation in 1984. He is widely recognized throughout the country for the breadth of his research and his technical thoroughness.

The KPMG Peat Marwick/Charles W. Lamden Professor of Taxation

Established to help SDSU, the College of Business Administration, and the School of Accountancy achieve a new level of excellence and offer benefits to the accounting community, this professorship was the first in the School of Accountancy funded by a national CPA firm. The professorship has enhanced the School of Accountancy's ability to produce the highest caliber of tax graduates who are knowledgeable in contemporary issues in taxation.

Dr. Gerald Whittenburg has held the position since its inception in 1988. Since his tenure at SDSU, Whittenburg has been honored for his teaching and is the acknowledged entrepreneurial force behind the nationally recognized Masters of Tax program.

The Price Waterhouse Alumni Professor of Accountancy

The Price Waterhouse Alumni Professor was established in 1993 to recognize innovative excellence in the teaching of accounting. The professorship is designed to enhance the School of Accountancy's ability to attract and retain top-quality accounting educators and scholars.

Accountancy

In the College of Business Administration

The professorship is funded by a combination of contributions from the Price Waterhouse Foundation, the local San Diego office, and SDSU alumni and friends of the school on staff with Price Waterhouse both locally and nationwide.

Dr. Robert Capettini holds the position. He was heavily involved in creating the new, broad-based, integrated accounting curriculum which was introduced in the fall of 1993.

Admission to the Major

The undergraduate business administration program at San Diego State University is structured such that students desiring a business administration major are first admitted to the prebusiness administration major for their first two years of university work. During these first two years students should complete general education courses and a common core of nine lower division preparation for the business major courses—Accountancy 201, Financial Accounting Fundamentals; 202, Managerial Accounting Fundamentals; Finance 140, Legal Environment of Business; Economics 101, Principles of Economics (Macro); Economics 102, Principles of Economics (Micro); Information and Decision Systems 180, Principles of Information Systems; Information and Decision Systems 290, Business Communication (not required for accounting majors); Mathematics 119, Elementary Statistics for Business; and Mathematics 120, Calculus for Business Analysis. These prerequisite courses may not be taken Cr/NC; the minimum grade in each class is C. All students must achieve a passing score on a quantitative competency examination. Students must have completed 56 college units.

Supplemental admissions criteria must be met before students may declare an upper division major and be eligible for upper division courses. For current information concerning admissions criteria and procedures, contact the Undergraduate Business Advising Office in the College of Business Administration.

Also, before enrolling in upper division courses offered by the College of Business Administration, students must be competent in the operation of personal computers, including word processing and spreadsheets. These skills are required in upper division business courses.

Business administration majors may not complete a minor in the College of Business Administration.

Retention Policy

The College of Business Administration is concerned that each individual upper division student makes reasonable academic progress toward earning a degree. To this end, the College will counsel students who have earned less than a "C" (2.0) average each semester. Further, such students will be warned that continued poor performance may result in their removal from any business major.

Transfer Credit

Lower Division: Courses clearly equivalent in scope and content to San Diego State University courses required for minors or as preparation for all business majors will be accepted from regionally accredited United States institutions and from foreign institutions recognized by San Diego State University and the College of Business Administration.

Upper Division: It is the policy of the San Diego State University College of Business Administration to accept *upper division transfer credits* where (a) the course content, requirements, and level are equivalent to San Diego State University courses and (b) where the course was taught in an American Assembly of Collegiate Schools of Business accredited program. Exceptions require thorough documentation evidencing the above standards.

The Major

The major in accountancy provides basic concepts of accounting and business knowledge to students seeking professional careers in the field and the opportunity to gain the knowledge necessary to pass professional examinations in accounting.

There are three kinds of accountants: public, management, and government. Public accountants work for themselves, in partnerships, or with public accounting firms. Management accountants, also known as industrial or private accountants, work on salary for a single company or corporation. Government accountants are employed by federal, state and local governments to supply accounting services, or serve as investigators, bank examiners, and auditors.

The curriculum has been designed to offer courses in these three areas of specialization, as well as provide students with the essential principles of accounting.

The Certificate in Accounting program provides professional certification and training necessary for candidates preparing for the C.P.A. examination. Thirty units of coursework are required. Matriculated SDSU students may not enroll in this program. Enrollment is through the College of Extended Studies.

Growing with the increased complexity of the business world, accounting continues to offer a wide choice of careers and opportunities. Some of the more common specialties for accounting majors include auditors, cost accountants, controllers, systems and procedures accountants, and tax accountants.

Accounting Major

With the B.S. Degree in Business Administration
(Major Code: 05021)

Preparation for the Major. Accountancy 201 and 202; Economics 101 and 102; Economics 201 or Mathematics 119; Mathematics 120; Finance 140; Information and Decision Systems 180. (24 units)

These prerequisite courses may not be taken Cr/NC; the minimum grade in each class is C. **Additional progress requirements must be met before a student is admitted to an upper division major.**

Upper Division Writing Requirement. Information and Decision Systems 390W with a grade of C (2.0) or better.

Major. Forty-two upper division units consisting of Accountancy 321, 322 and 421; Finance 323; Information and Decision Systems 301, 302, and 390W; Management 350; Management 405 or Information and Decision Systems 404; Marketing 370; Economics 320 or 321 or Finance 321. A minimum of 64 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration and economics. A maximum of six lower division units of accountancy courses may be used to satisfy degree requirements. No more than 22 units of the student's degree requirements may be in upper division accountancy courses. Of the 128 units required for the degree, at least 60 units must be at the upper division level. A "C" (2.0) average is required in the courses stipulated here for the major.

Business Major

For the Single Subject Teaching Credential
With the B.S. Degree in Business Administration

All candidates for the single subject teaching credential in business must complete all requirements for the applicable specialization as outlined in this section of the catalog under Policy Studies or Teacher Education. Students must complete the requirements for a

major in one of the five departments within the College of Business Administration. In consultation with the single subject credential adviser in the College of Business Administration, undergraduate students must develop programs which fulfill the State credential requirements. All undergraduate majors must demonstrate office skills proficiency. Finance 589, Personal Financial Planning, is required of all teaching credential majors. Of the 128 units required for the degree, at least 60 units must be at the upper division level.

Student program must be approved in advance by the College of Business Administration single subject credential adviser.

Accounting Minor

The minor in accounting consists of a minimum of 24 units to include Accountancy 201, 202, 321, 322, Information and Decision Systems 301, and Mathematics 120.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University. Students with a major in the College of Business Administration may not complete a minor in the College of Business Administration. Additional requirements must be met before the student may obtain permission to declare a business minor. See an adviser in the Business Advising Center for more information.

Accounting Certificate

The purpose of the Accounting Certificate is to provide professional and postbaccalaureate certification to accounting and nonaccounting professionals in San Diego.

Students must apply and be admitted to the program before the completion of 18 certificate units. The certificate requires 30 units to include Accountancy 201, 202, 321*, 322*, and 421 (24 units) and approved electives to make a total of 30 units. Accountancy 201 and 202 must be completed with a minimum grade of C (2.0) and the certificate coursework must be completed with a minimum grade point average of C (2.0).

Courses with relevant content may be substituted for the courses listed above with the approval of the certificate adviser. Courses in the certificate may not be counted toward the major or minor.

- * IDS 180 prerequisite waived for students in this program.
- + IDS 301 prerequisite waived for students in this program.

Courses

LOWER DIVISION COURSES

A maximum of six lower division units of accountancy courses may be applied to bachelor's degree requirements for all majors in the College of Business Administration.

201. Financial Accounting Fundamentals (3) I, II, S

Theory and practice of accounting applicable to recording, summarizing, and reporting of business transactions for external reporting and other external uses. Asset valuation; revenue and expense recognition; various asset, liability, and capital accounts. Not open to students with credit in Accountancy 210A, 210B. Preparation requirement for business majors.

202. Managerial Accounting Fundamentals (3) I, II, S

Prerequisite: Minimum grade of C in Accountancy 201. **Proof of completion of prerequisite required:** Copy of transcript.

Selection and analysis of accounting information for internal use by managers. Using financial information for planning and control purposes.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

309. The Accounting Profession (1) Cr/NC

Prerequisite: Approved upper division business major, business minor, or other approved major.

Analysis and evaluation of professional opportunities that utilize the accounting and reporting functions.

321. Integrative Accounting Topics I (6)

Prerequisites: Information and Decision Systems 180; minimum grade of C in both Accountancy 201 and 202. Completion of General Education requirement in Written Communication and Oral Communication. Not open to students with credit in both Accountancy 325 and 326. **Proof of completion of prerequisites required:** Copy of transcript.

Information and accounting systems to satisfy the decision making requirements of managers and external users. Includes material typically contained in Intermediate Accounting I, Managerial Cost Accounting Systems, and Federal Income Tax I courses. Not open to students with credit in Accountancy 300 and 302.

322. Integrative Accounting Topics II (6)

Prerequisites: Minimum grade of C in Accountancy 321. Not open to students with credit in both Accountancy 406 and 506. Credit or concurrent registration in Information and Decision Systems 390W.

Proof of completion of prerequisites required: Copy of transcript.

Preparation and use of financial statement information. Design and audit of the accounting system which produces this information. Includes material typically contained in accounting information systems, and auditing courses.

325. Intermediate Managerial and Tax Accounting (3)

Prerequisites: Accountancy 202. Approved upper division business major or minor or other approved major. Not open to accounting majors.

Theories, practices, and concepts needed to satisfy decision making requirements of internal users; tax considerations to managerial decision making. May not be taken for credit by accounting majors.

326. Intermediate Financial Accounting (3)

Prerequisite: Accountancy 202. Approved upper division business major or minor or other approved major. Not open to accounting majors.

Theories, practices, and concepts needed to satisfy the decision making requirements of external users; financial reporting for enterprises engaged in international trade of business. May not be taken for credit by accounting majors.

404. Federal Taxation of Individuals (4) I, II, S

Prerequisites: Accountancy 201 and 202. Approved upper division business major, business minor, or other approved major. **Proof of completion of prerequisites required:** Copy of transcript.

Taxation of individuals, including income, deductions, credits, social security taxes, and property transactions.

409. Field Study in Taxation (1) Cr/NC II

Prerequisite: Accountancy 321.
Income tax preparation in the field. Follows procedures of IRS VITA Program. IRS instruction followed by faculty supervised fieldwork. (Student must be available for special IRS tax school.)

421. Integrative Accounting Topics III (6)

Prerequisites: Information and Decision Systems 301, 390W; minimum grade of C in Accountancy 322. **Proof of completion of prerequisites required:** Copy of transcript.

Tax considerations in selecting the form of organization, accounting information for managerial performance evaluation, and system

development and financial reporting issues; financial and tax research methods. Includes material typically contained in Intermediate Accounting II.

496. Selected Topics in Accountancy (1-4) I, II

Prerequisite: Consent of department chair.

Selected areas of concern in accountancy. See Class Schedule for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

498. Investigation and Report (1-3) I, II

Prerequisites: Senior standing and consent of instructor.

A comprehensive and original study of a problem connected with accounting under the direction of one or more members of the accounting staff. May be repeated with new content. Maximum credit six units.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

501. Advanced Accounting Problems (4) I, II

Prerequisites: Minimum grade of C in Accountancy 322; credit or concurrent registration in Accountancy 421. **Proof of completion of prerequisites required:** Copy of transcript.

Problems involved in partnerships, consignments, consolidations, receiverships, foreign exchange, fund accounting, and other specialized areas.

502. Advanced Managerial Accounting (3)

Prerequisite: Minimum grade of C in Accountancy 322; credit or concurrent registration in Accountancy 421. **Proof of completion of prerequisite required:** Copy of transcript.

Use of accounting information systems for managerial decision making. Introduction to decision-making situations which use accounting information for full or partial resolution. Consideration of uncertainty, decision theory and specific decision contexts.

504. Federal Taxation of Business Enterprises (4) I, II, S

Prerequisite: Credit or concurrent registration in Accountancy 421 or credit in Accountancy 404.

Taxation of corporations, partnerships, estates, and trusts. Gift and estate tax.

508. Accounting for Not-For-Profit Organizations (3)

Prerequisite: Minimum grade of C in Accountancy 322. **Proof of completion of prerequisite required:** Copy of transcript.

Principles of fund accounting useful in state and local governmental units, hospitals, colleges, and universities. Comparisons with commercial accounting emphasized. Includes study of budgetary accounting, appropriations, encumbrances, internal checks and auditing procedures.

596. Contemporary Topics in Accounting (1-3)

Prerequisites: Minimum grade of C in Accountancy 322; credit or concurrent registration in Accountancy 421. **Proof of completion of prerequisites required:** Copy of transcript.

Contemporary topics in modern accounting. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES Refer to the Graduate Bulletin.

Administration, Rehabilitation and Postsecondary Education

In the College of Education

OFFICE: North Education 279
TELEPHONE: (619) 594-6115

Accredited by the California Commission on Teacher Credentialing and the Council on Rehabilitation Education.

Faculty

Emeritus: Holt, Lienert, Stevens, Warburton, Wetherill
Chair: McFarlane

Educational Leadership

Professors: Chamley, Frase, Latta, Merino, Piland, Streshly
Associate Professor: Downey

Rehabilitation Counseling

Professors: Atkins, Chamley, Jacobs, Jones, McFarlane

Offered by the Department

Master of Arts degree in education.

Concentration in educational leadership.

Master of Science degree in rehabilitation counseling.

Bachelor of Vocational Education degree.

Administrative services credentials.

Certificate in rehabilitation administration.

Bachelor of Vocational Education Degree

(Major Code: 08395)

Instructors of Occupational Education are encouraged to complete the B.V.E. and to enroll in the program leading to the Master of Arts in Education with a concentration in educational leadership. For further information, students are advised to consult with the Postsecondary Education Coordinator, College of Education.

The Bachelor of Vocational Education degree is designed primarily for instructors who are **teaching in a vocational education program** either in the secondary school or in postsecondary education programs and qualify for an official evaluation (under provisions of the Swan Bill) through the State Board of Vocational Examiners in Sacramento. To qualify for the evaluation, the requirements of the State Education Code, Section 89223, must be met. This regulation stipulates a minimum period of vocational teaching experience amounting to 1,620 clock hours in a full-time position or 1,000 clock hours in an approved trade technical extension class.

The individual desiring to secure the B.V.E. degree should follow the basic pattern set down in the following steps:

1. The individual must have an Associate of Arts degree or 60 units. (This should include, if possible, the 40 lower division units of general education required for the bachelor's degree from SDSU. The additional nine upper division units required for General Education must be completed at SDSU.) 70 units maximum

2. The individual must apply for evaluation of work experience (Swan Bill). Applicants should apply to the Board of Examiners for Vocational Teachers, Bureau of Industrial Education, State Education Bldg., 721 Capitol Avenue, Sacramento, California. These units count toward the major and are classified as upper division units. (See Postsecondary Education Program Coordinator for assistance and application forms.) 40 units maximum
3. The individual must take the following professional occupational teacher education courses:
ARP 380, 381, 382, and 565. 6-13 units maximum
4. The individual must receive credit for the required number of upper division courses to complete the Bachelor of Vocational Education degree graduation requirements. This includes those given in item 2 above. 40 units
5. The individual must satisfy all other graduation requirements, including competencies, upper division writing requirement, grade point average, residency, etc.
6. The individual must see an adviser in the area of the major to arrange a program for completion of coursework. A series of elective courses that will support the professional responsibilities of the candidate will be recommended. Furthermore, 30 units must be in residency at SDSU, of which 24 must be upper division.

Total 124 units

Courses

GENERAL

UPPER DIVISION COURSES (Intended for Undergraduates)

397. **Problems in Education** (Credit to be arranged) I, II
(Offered only in Extension)
Prerequisite: Consent of instructor.
Class study of specially selected problems in education. Does not apply to pattern requirements for credentials. Credit earned in this course not applicable to a bachelor's degree.
496. **Experimental Topics** (1-4)
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. (Formerly numbered Educational Technology and Librarianship 496.)
499. **Special Study** (1-3) I, II
Prerequisite: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

584. **Introduction to Rehabilitation Process** (3)

Two lectures and three hours of laboratory.

Background and legislation related to vocational rehabilitation, client services, role and function of rehabilitation counselor as a professional. Orientation to community rehabilitation agencies. (Formerly numbered Administration, Rehabilitation and Postsecondary Education 684.)

596. **Topics in Administration, Rehabilitation and Postsecondary Education** (1-3)

Selected problems in administration, rehabilitation and postsecondary education. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

Educational Leadership

UPPER DIVISION COURSES (Intended for Undergraduates)

380. **Principles of Adult and Vocational Education** (3) I, II, S

Principles, practices, scope, and functions of adult and vocational education.

381. **Developing Adult and Vocational Education** (3) I, II, S

Needs assessment, task analysis, formulation of objectives, lesson plans, instructional techniques, and evaluation in adult and vocational settings.

382. **Directed Teaching** (2-4) Cr/NC I, II, S

Prerequisite: Administration, Rehabilitation and Postsecondary Education 380, 381, or 565.

Systematic observation, participation, and teaching under supervision in an occupational subject matter area. Application to take this course must be made in preceding semester.

UPPER DIVISION COURSE (Also Acceptable for Advanced Degrees)

565. **Psychological Foundations of Adult and Vocational Education** (3) I, II, S

Prerequisite: Administration, Rehabilitation and Postsecondary Education 380 or 381.

Learning processes of adult and vocational education students in relationship to theories of learning and methods of teaching.

GRADUATE COURSES Refer to the Graduate Bulletin.



Aerospace Engineering and Engineering Mechanics

In the College of Engineering

OFFICE: Engineering 308
TELEPHONE: (619) 594-6074

The undergraduate degree in Aerospace Engineering is accredited by the Accreditation Board for Engineering and Technology, Inc.

Faculty

Emeritus: Faulkner, Shutts
Chair: Plotkin
Professors: Conly, Dharmarajan, Katz, Narang, Nosseir, Pierucci, Plotkin, Wang
Associate Professor: Lyrantzis

Offered by the Department

Doctor of Philosophy degree in applied mechanics.
Master of Science degree in aerospace engineering.
Major in aerospace engineering with the B.S. degree.

Transfer Credit

No credit will be given for upper division engineering coursework taken at an institution having an engineering program which has not been accredited by the Accreditation Board for Engineering and Technology, Inc., unless the student successfully completes the first 12 units of engineering work attempted at this university. At that time, and upon recommendation of the department, credit will be given for the unaccredited work.

General Education

Students will complete a minimum of 50 units in General Education, to include a minimum of nine upper division units taken after attaining junior class standing. At least three of the nine upper division units must be taken from Explorations; the remaining six units may be taken from Explorations or from specifically approved upper division course substitutions for Foundations areas B and C (Social and Behavioral Sciences and Humanities). No more than twelve units may be used for General Education credit from any one department or academic unit.

I. Communication and Critical Thinking: 9 units

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)

II. Foundations: 29 units

A. Natural Sciences and Quantitative Reasoning (17 units):

1. Physical Sciences (11 units)
Engineering students will take Chemistry 200 which includes a laboratory (5 units).
Physics 195 (3 units)
Physics 196 (3 units)
2. Life Sciences (3 units)
3. Laboratory (satisfied under A. 1. above)
4. Mathematics/Quantitative Reasoning
Engineering students will take Mathematics 150 (3 units) applicable to General Education.

B. Social and Behavioral Sciences (3 units)

C. Humanities (9 units)

Complete three courses in three different areas. One of these courses and the one under IV.A. below must be taken in the same department.

III. American Institutions: Three units of the six units of coursework which meet the American Institutions graduation requirement may be used in General Education, excluding courses numbered 500 and above.

IV. Explorations: Total 9 units; must include one course of cultural diversity.

A. Upper division Humanities (3 units)

This course must be taken from the same department as one of the Humanities courses selected in Foundations.

B. Upper division Humanities (3 units from an area in Humanities not selected in Foundations)

C. Upper division Social and Behavioral Sciences (3 units)

The Major

The Department of Aerospace Engineering and Engineering Mechanics offers a rigorous and balanced education which includes the study of aerodynamics, aerospace structures, propulsion, flight mechanics and vehicle design. The goal of this program is to create professional aerospace engineers with an understanding of the physical fundamentals underlying atmospheric and space flight, and with the capability of applying this knowledge for research, analysis, and design purposes. Moreover, the physical background and design synthesis that are characteristic of an aerospace engineering student's education also prepare the student to work productively in other fields such as energy, transportation, and ocean engineering.

The aerospace industry, the second largest industry in our country, is one of the largest employers of engineers. Opportunities for employment in entry level positions in large aircraft companies, general aviation manufacturers, the airlines, or government aerospace-related laboratories are good. Graduates of the program are also qualified to continue their formal education at the graduate level or to accept entry level positions in several nonaerospace fields.

Aerospace Engineering Major

With the B.S. Degree (Major Code: 09021)

Students majoring in Aerospace Engineering must include in their program a sequence of fundamental courses. In addition, the students have the opportunity to satisfy their particular areas of interest by selecting a pattern of study indicated in the sequence below. This pattern includes typical aerospace engineering topics, such as aerospace vehicle design, performance, structural analysis, aerodynamics, and propulsion. The students' choice of elective courses and area of specialization must be made in consultation with their adviser and documented by the filing of an approved master plan during the first semester of their junior year.

Upper Division Writing Requirement. Departmental screening in Aerospace Engineering 303, or passing the University Writing Examination, or completing one of the approved writing courses with a grade of C (2.0) or better.

NOTE: See following page for recommended sequence of courses for the major in aerospace engineering.

FRESHMAN YEAR

Fall Semester	Units	Spring Semester	Units
Chem. 200, General Chemistry	5	Phys. 195, Principles of Physics	3
Math. 150, Single Variable Calculus	5	Math. 151, Calc. and Anal. Geom.	4
General Education	6	ME 190, Engineering Drawing	2
AE 123, The Aerospace Engineer	1	Engr. 120, Engr. Problem Analysis	2
		General Education	6
	17		17

SOPHOMORE YEAR

Fall Semester	Units	Spring Semester	Units
Math. 252, Multivariable Calculus	4	Phys. 197, Principles of Physics	3
EM 200, Statics	3	EE 204, Principles of Elec. Engr.	3
General Education	9	EM 220, Dynamics	3
Phys. 196, Principles of Physics	3	Engr. 280, Methods of Analysis	3
		General Education	3
	19	ME 260, Engineering Materials	3
			18

JUNIOR YEAR

Fall Semester	Units	Spring Semester	Units
ME 352, Thermodynamics and Heat Transfer	3	Engr. 510, Methods of Analysis	3
AE 301, Low Speed Aerodynamics	3	AE 302, High Speed Aerodynamics	3
CE 301, Intro. to Solid Mechanics	3	AE 303, Experimental Aerodynamics	2
CE 302, Solid Mechanics Lab.	1	AE 310, Aerospace Struc. Anal.	3
EM 340, Fluid Mechanics	3	AE 320, Aerospace Flight Mech.	3
EM 341, Fluid Mechanics Lab.	1	General Education	3
General Education	3		17
	17		

SENIOR YEAR

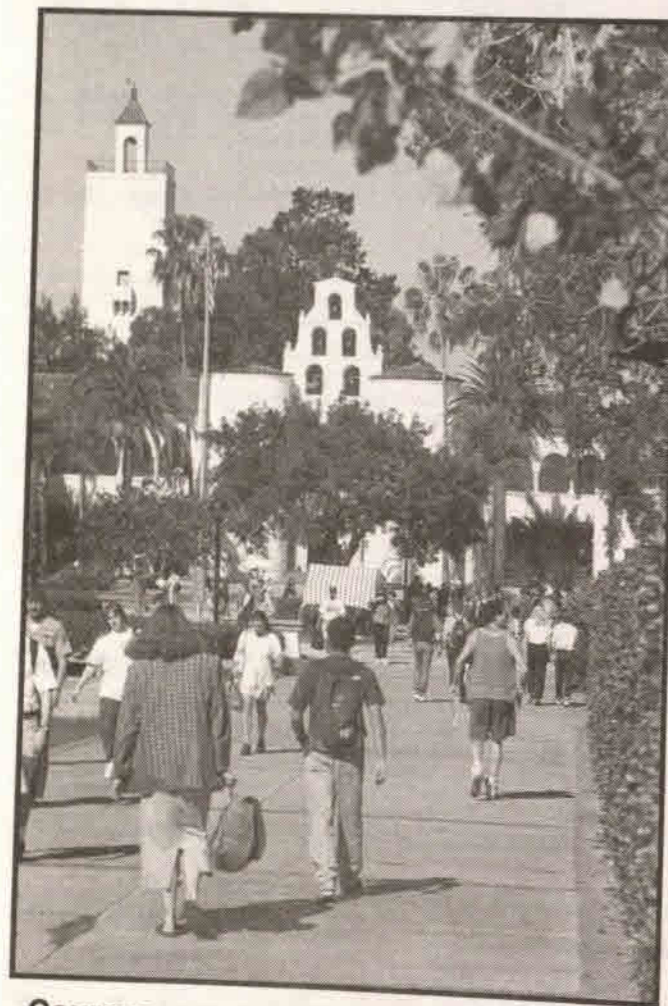
Fall Semester—All Specializations

	Units
AE 403, Aerosp. Engr. Senior Project	3
AE 410, Aerospace Struc. Dynamics	3
AE 430, Aircraft Propulsion Systems	3
AE 440, Aircraft Stab. and Control I	3
AE 460A, Aerosp. Engr. Applications	2
American Institutions	3
	17

Spring Semester—According to Specialization

Aerodynamics	Units	Aerospace Structures	Units	Propulsion & Flight Mechanics	Units
AE 460B, Aerosp. Engr. Applications	3	AE 460B, Aerosp. Engr. Applications	3	AE 460B, Aerosp. Engr. Applications	3
AE 480, Aeroelasticity & Acoustics	2	AE 480, Aeroelasticity & Acoustics	2	AE 480, Aeroelasticity & Acoustics	2
American Institutions	3	American Institutions	3	American Institutions	3
General Education	3	General Education	3	General Education	3
Choose any two courses:		Choose any two courses:		Choose any two courses:	
AE 530, Rocket & Space Propulsion	3	AE 540, Arcrft. Stability & Control II	3	AE 520, Int. Aerospace Flight Mech.	3
AE 550, Viscous Flow	3	EM 510, Fin. Ele. Meth. Aero. Struc.	3	AE 530, Rocket & Space Propulsion	3
EM 510, Fin. Elem. Meth. Aero. Struc.	3	EM 530, Composite Struc. Analysis	3	AE 540, Arcrft. Stability & Cntrl. II	3
	17		17		17

Other electives may be substituted with permission of the adviser and department chair.



Courses

LOWER DIVISION COURSE IN AEROSPACE ENGINEERING

- 123. The Aerospace Engineer (1)**
Introduction to professional aerospace engineering. Emphasis on aeronautics and astronautics.

UPPER DIVISION COURSES IN AEROSPACE ENGINEERING (Intended for Undergraduates)

- 301. Low Speed Aerodynamics (3)**
Prerequisite: Credit or concurrent registration in Engineering Mechanics 340.
Subsonic flow, airfoil and wing theory, experimental characteristics of wing sections, high lift devices.
- 302. High Speed Aerodynamics (3)**
Prerequisites: Aerospace Engineering 301 and Mechanical Engineering 352.
Supersonic flow, two- and three-dimensional compressible flow, wings in compressible flow, two- and three-dimensional method of characteristics, transonic flow.
- 303. Experimental Aerodynamics (2)**
One lecture and three hours of laboratory.
Prerequisites: Engineering Mechanics 341 and credit or concurrent registration in Aerospace Engineering 301. **Proof of completion of prerequisite required for the following:** To be eligible for the departmental upper division writing test in this class, students must

have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. Test scores or verification of exemption; copy of transcript or enrollment confirmation.

Operating characteristics of subsonic and supersonic wind tunnels. Aerodynamic characteristics of wings and bodies. Flow visualization techniques. Force, moment and pressure distribution measurement. Use of hot-wire anemometer and schlieren equipment.

310. Aerospace Structural Analysis (3)

Prerequisite: Civil Engineering 301.
Methods of static structural analysis of problems encountered in flight of aerospace vehicles. (Formerly numbered Aerospace Engineering 310A.)

320. Aerospace Flight Mechanics (3)

Prerequisites: Engineering Mechanics 220 and Engineering 280.
Aerodynamics and dynamics of ballistic missiles; guidance systems; orbits and space trajectories; effects of aerodynamics, mass rotation and shape of the earth on ballistic and space trajectories. Computer programming and problem solutions will be emphasized.

403. Aerospace Engineering Senior Project (3)

One lecture and six hours of laboratory.
Prerequisites: Aerospace Engineering 302, 303, Engineering Mechanics 340.
Design and build an aerospace project, conduct experimental measurements, perform analyses of measured data.

410. Aerospace Structural Dynamics (3)

Prerequisites: Credit or concurrent registration in Aerospace Engineering 310.
Methods of structural dynamic analysis of problems encountered in aerospace vehicles. (Formerly numbered Aerospace Engineering 310B.)

430. Aircraft Propulsion Systems (3)

Prerequisite: Aerospace Engineering 302 or Mechanical Engineering 450.
Theory and performance characteristics of aircraft propulsion systems including reciprocating engines, turbojets, ramjets, etc.

440. Aircraft Stability and Control I (3)

Prerequisite: Aerospace Engineering 303.
Static stability and control, general equations of unsteady motion, stability derivatives, stability of uncontrolled motion, response of aircraft to actuation of controls.

460A. Aerospace Engineering Applications (2) I

Six hours of laboratory.
Prerequisites: Aerospace Engineering 302, 303 and 310.
Student projects in aerospace design.

460B. Aerospace Engineering Applications (3) II

One lecture and five hours of design activity.
Prerequisite: Aerospace Engineering 460A.
Student projects in aerospace design.

480. Aeroelasticity and Acoustics (2)

Prerequisites: Aerospace Engineering 302 and 410.
Theory of fluid-structure interaction. Flutter phenomena. Buffeting. Oscillating airfoils in compressible flow. Theory of acoustics. Acoustic radiation. Effect of fluid motion.

496. Advanced Aerospace Engineering Topics (1-3) I, II

Prerequisite: Consent of instructor.
Modern developments in engineering. See Class Schedule for specific content. Maximum credit six units for any combination of Aerospace Engineering 496 and 499.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units for any combination of Aerospace Engineering 496 and 499.

UPPER DIVISION COURSES IN AEROSPACE ENGINEERING

(Also Acceptable for Advanced Degrees)

520. Intermediate Aerospace Flight Mechanics (3)

Prerequisite: Aerospace Engineering 320.
A continuation of Aerospace Engineering 320 to include orbit determination techniques, general and special perturbations, artificial satellites, rocket dynamics and transfer orbits, earth-moon trajectories, and interplanetary trajectories.

530. Rocket and Space Propulsion (3)

Prerequisite: Aerospace Engineering 430.
Equilibrium combustion thermodynamics. Performance of rocket propelled vehicles. Rocket propulsion fundamentals. Topics in chemical (solid and liquid) and electrical propulsion systems.

540. Aircraft Stability and Control II (3)

Prerequisite: Aerospace Engineering 440.
Dynamic stability and control of rigid aircraft; general equations of unsteady motion, stability derivatives, perturbed state thrust forces and moment, special problems in dynamic stability and response.

550. Viscous Flow (3) I

Prerequisites: Credit or concurrent registration in Engineering Mechanics 340, and Engineering 510.
Kinematics of fluid motion. Conservation of mass, momentum, and energy. Navier-Stokes equations; exact solutions. Boundary layer approximations, turbulent flow.

596. Advanced Aerospace Engineering Topics (3)

Prerequisite: Consent of instructor.
Modern developments in aerospace engineering. See Class Schedule for specific content. Maximum credit of six units for any combination of Aerospace Engineering or Engineering Mechanics 496, 499, and 596 applicable to a bachelor's degree. Maximum combined credit of six units of Aerospace Engineering or Engineering Mechanics 596 and 696 applicable to a 30-unit master's degree.

LOWER DIVISION COURSES IN ENGINEERING MECHANICS

200. Statics (3) I, II

Prerequisites: Physics 195 and credit or concurrent registration in Mathematics 151.
Force systems, equilibrium, structures, distributed forces, friction, virtual work, moments of inertia, vector algebra.

202. Mechanics for Electrical Engineers (3) I, II

Prerequisites: Physics 195 and credit or concurrent registration in Mathematics 151.
Essentials of mechanics of particles and rigid bodies, for engineering applications. Emphasis on particle dynamics. Intended for Electrical Engineering majors. Not open to students with credit in Engineering Mechanics 200 or 220.

220. Dynamics (3) I, II

Prerequisite: Engineering Mechanics 200 with a grade of C or better.
Kinetics of a particle; central force motion; systems of particles; work and energy; impulse and momentum; moments and products of inertia; Euler's equations of motion; vibration and time response; engineering applications.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES IN ENGINEERING MECHANICS (Intended for Undergraduates)

340. Fluid Mechanics (3) I, II

Prerequisites: Engineering Mechanics 220 or 202; and credit or concurrent registration in Engineering 280.
Fluid statics. Laminar and turbulent flow of liquids and gases in pipes, nozzles, and channels. Dimensional analysis and modeling. Drag forces on moving or immersed objects.

341. Fluid Mechanics Laboratory (1) I, II

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Engineering Mechanics 340.
Flow measuring devices. Experimental applications of continuity, Bernoulli and momentum equations. Model studies. Pipe and channel flows. Flow visualization techniques. Operating characteristics of wind tunnel and water table.

496. Advanced Engineering Mechanics Topics (1-3) I, II

Prerequisite: Consent of instructor.
Modern developments in engineering mechanics. See Class Schedule for specific content. Maximum credit six units for any combination of Engineering Mechanics 496, 499, and 596.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units for any combination of Engineering Mechanics 496, 499, and 596.

UPPER DIVISION COURSES IN ENGINEERING MECHANICS (Also Acceptable for Advanced Degrees)

510. Finite Element Methods in Aerospace Structures (3)

Prerequisite: Aerospace Engineering 410.
Static and dynamic analysis of aerospace structures utilizing finite element methods.

530. Composite Structural Analysis (3) I

Prerequisites: Engineering 280 and Civil Engineering 301.
Strength of composite materials; lamination theory; strength analysis of laminates; bending, buckling, and vibration of composite plates.

596. Advanced Engineering Mechanics Topics (1-3)

Prerequisite: Consent of instructor.
Modern developments in engineering mechanics. See Class Schedule for specific content. Maximum credit of six units for any combination of Engineering Mechanics 496, 499, and 596 applicable to a bachelor's degree. Maximum combined credit of six units of Engineering Mechanics 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES IN AEROSPACE ENGINEERING AND ENGINEERING MECHANICS Refer to the Graduate Bulletin.

Aerospace Studies

In the College of Professional Studies and Fine Arts

OFFICE: Physical Education 385
TELEPHONE: (619) 594-5545

Faculty

Chair: Airman
Professor: Airman
Assistant Professors: Adelman, Mora, Whisenant

Offered by the Department

AFROTC curriculum.
Minor in aerospace studies.

AFROTC Curriculum

The department offers a four- or two-year Air Force Reserve Officers Training Corps program designed to develop officers who have broad understanding and high growth potential. For qualified students, two- to four-year scholarships are available in certain areas on a competitive basis. Scholarships pay full tuition at SDSU and various laboratory, textbook, and incidental fees plus a monthly nontaxable \$150 allowance during the school year. Cadets participate in dialogues, problem solving, and other planning activities designed to develop leaders and managers. All coursework is done on campus with the exception of field trips and one Field Training encampment conducted at military bases.

Either a four- or six-week Field Training camp is required for all students during the summer between the sophomore and junior years. The four-week camp is for students who have completed all AFROTC lower division courses with a grade of "C" or better in each course and for those with prior military service. Field training emphasizes military orientation for the junior officer and aircraft and aircrew familiarization. Cadets receive physical training and participate in competitive sports. They observe selected Air Force units perform everyday operations, and they are trained in drill and ceremonies, preparation for inspections, and the use of weapons. Upon completion of the AFROTC program and all requirements for a bachelor's degree, cadets are commissioned second lieutenants in the Air Force and serve a minimum of four years active duty. Graduates go on active duty in a specialty consistent with their academic major, their desires, and existing Air Force needs. Graduates may request a delay from entry on active duty to continue their education or may apply for Air Force sponsored graduate study to begin immediately upon entry on active duty.

Applying for the Program

SDSU students enroll in aerospace classes by signing up for courses in the same manner as other university classes. There is no advance application needed for the freshman or sophomore (AS100/200) classes. However, an orientation program, held just prior to the start of the fall term, is recommended and designed to give new cadets a broad, realistic introduction to Air Force officer training and provide them with helpful, important information on meeting academic requirements. Contact the Aerospace Studies Department as early as possible for additional information and sign-up procedures. The last two years of AFROTC (AS300/400) lead to the commission as a second lieutenant and any student may apply during the sophomore year. The application process involves taking the Air Force Officer Qualification Test (AFOQT), a physical examination, and a personal interview. Students from other institutions in the San Diego area are eligible to take AFROTC and should check with the department to obtain enrollment procedures. Veterans who can be commissioned by age 35 are also eligible for the program.

Aerospace Studies Minor

The minor in aerospace studies consists of a minimum of fifteen units in aerospace studies, nine of which must be upper division.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

91A-91B. Leadership Laboratory (1-1) Cr/NC

One hour and forty-five minutes of activity per unit.

Prerequisites for AFROTC cadets: Concurrent registration in Aerospace Studies 100A for Aerospace Studies 91A; concurrent registration in Aerospace Studies 100B for Aerospace Studies 91B.

Designed to prepare junior cadets for positions as leaders and managers of the cadet corps and a commission in the US Air Force. Application of principles of motivation, time management, organizational behavior, and participative group management in solving problems. Leadership laboratory is open to students who are members of the Reserve Officer Training Corps or who are eligible to pursue a commission as determined by the Professor of Aerospace Studies. Maximum credit two units. Credit earned in this course not applicable to a bachelor's degree.

92A-92B. Leadership Laboratory (1-1) Cr/NC

One hour and forty-five minutes of activity per unit.

Prerequisites for AFROTC cadets: Concurrent registration in Aerospace Studies 200A for Aerospace Studies 92A; concurrent registration in Aerospace Studies 200B for Aerospace Studies 92B.

Designed to prepare junior cadets for positions as leaders and managers of the cadet corps and a commission in the US Air Force. Application of principles of motivation, time management, organizational behavior, and participative group management in solving problems. Leadership laboratory is open to students who are members of the Reserve Officer Training Corps or who are eligible to pursue a commission as determined by the Professor of Aerospace Studies. Maximum credit two units. Credit earned in this course not applicable to a bachelor's degree.

93A-93B. Leadership Laboratory (1-1) Cr/NC

One hour and forty-five minutes of activity per unit.

Prerequisite: Concurrent registration in Aerospace Studies 300A for Aerospace Studies 93A; concurrent registration in Aerospace Studies 300B for Aerospace Studies 93B.

Demonstration laboratory designed to develop leadership and management skills, problem-solving skills, and exercise group planning, organizing and coordinating activities. Leadership laboratory is open to students who are members of the Reserve Officer Training Corps or who are eligible to pursue a commission as determined by the Professor of Aerospace Studies. Credit earned in this course not applicable to a bachelor's degree.

94A-94B. Leadership Laboratory (1-1) Cr/NC

One hour and forty-five minutes of activity per unit.

Prerequisite: Concurrent registration in Aerospace Studies 400A for Aerospace Studies 94A; concurrent registration in Aerospace Studies 400B for Aerospace Studies 94B.

Demonstration laboratory designed to develop leadership and management skills, problem-solving skills, and exercise group

planning, organizing and coordinating activities. Leadership laboratory is open to students who are members of the Reserve Officer Training Corps or who are eligible to pursue a commission as determined by the Professor of Aerospace Studies. Credit earned in this course not applicable to a bachelor's degree.

100A-100B. The Air Force Today (1-1)

Meets one and one-half hours per week.

Prerequisite for AFROTC cadets: Concurrent registration in Aerospace Studies 91A for Aerospace Studies 100A; concurrent registration in Aerospace Studies 91B for Aerospace Studies 100B.

Semester I: Functions of the US Air Force. The total force structure, strategic offensive and defensive forces. Preparation for officer status. Semester II: General purpose and aerospace support forces and preparation for commissioned officer status.

200A-200B. The Development of Air Power (1-1)

Meets one and one-half hours per week.

Prerequisite for AFROTC cadets: Concurrent registration in Aerospace Studies 92A for Aerospace Studies 200A; concurrent registration in Aerospace Studies 92B for Aerospace Studies 200B.

Semester I: Development of air power through the peaceful employment of US air power in relief missions and civic action programs. Preparation for officer status. Semester II: Technological strides, major operations, and preparation for commissioned officer status through leadership studies.

233. Field Training Unit (2-3) Cr/NC I

Required for advanced cadets, military orientation and flight familiarization. Credit granted for six-week field training camp on basis of individual student application with approval of the Aerospace Studies department chair.

UPPER DIVISION COURSES (Intended for successful AFROTC applicants or for those with special permission)

300A-300B. The Professional Officer (3-3)

Semester I: The professional officer theory, total quality management applications, and selected case studies. Semester II: Management principles and functions, problem solving, briefing for commissioned service.

400A-400B. National Security Forces in Contemporary American Society (3-3)

Semester I: Role of professional officer in democratic society, socialization within Armed Services, requisites for adequate national security forces. Semester II: Political, economic, and social constraints on national defense structure and impact of technological and international developments on defense policy making.

499. Special Study (1-3) I, II

Prerequisite: Consent of Aerospace Studies department chair. Individual study. Maximum credit six units.



Africana Studies

In the College of Arts and Letters

Faculty

Chair: Cornwell
Professors: Chambers, Kornweibel
Associate Professors: Cornwell, Weber
Assistant Professor: Toombs

Offered by the Department

Major in Afro-American studies with the B.A. degree in liberal arts and sciences.

Minor in Afro-American studies.

The Major

Africana studies offers a broad, interdisciplinary program. The curriculum is designed to study a variety of subjects pertaining to the Africana experience. It is concerned with strengthening links between the needs of black students and the black community, and developing frameworks for social change and the struggle for black dignity. It seeks, in short, to provide a total educational experience of the Africana culture. The courses offered in Africana studies are available to anyone who is interested.

The major provides excellent preparation for the fields of law, government, foreign service, business administration, research, consulting, librarianship, counseling, program development, program design, program analysis, urbanology, and writing, to name a few, as well as the more traditional Africana studies profession of teaching.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Afro-American Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22111)

All candidates for the degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in Africana studies courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Africana Studies 101A, 101B, 102, 170A; 170B or 250. (15 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

OFFICE: Adams Humanities 3129

TELEPHONE: (619) 594-6531

Major. A minimum of 24 upper division units to include twelve units selected from one of the following areas and six units from each of the two remaining areas: Up to six units, with appropriate content, of 496 and 499 in any combination may be applied to an area of specialization with the approval of the department chair.

Sociology and Psychology: Africana Studies 330, 331, 341, 360*, 445, 448, 451, 452, 453.

Humanities: Africana Studies 350 (3 units applicable to major), 363, 365, 385, 460, 461, 462, 463, 480, 485.

History and Political Science: Africana Studies 320, 321, 322, 325, 380, 420, 470, 471A, 471B, 472.

* Additional prerequisite required.

Afro-American Studies Minor

The minor in Afro-American studies consists of a minimum of 18 units to include six units selected from the courses for preparation for the major, six units selected from one of the three areas of the major, and three units from each of the remaining areas.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

101A. Introduction to Africana Studies: Social and Behavioral Sciences (3)

Interdisciplinary introduction of African American thought and behavior. Subject areas include social systems, economic empowerment, self development, family dynamics, use of power, cognitive styles, interethnic communication and international relations. Review of relevant literature in social and behavioral sciences. Not open to students with credit in Afro-American Studies 101.

101B. Introduction to Africana Studies: Humanities (3)

Interdisciplinary introduction to African American history, literature, other arts and religion. Subject areas include methodology and theoretical perspectives of Africana studies. Not open to students with credit in Afro-American Studies 101.

102. Afro-American Lifestyles (3) I, II

Afro-American lifestyles in the past, present, and future. Examination of contemporary problems, their roots and their effects on twentieth century America.

120. Composition (3) I, II

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements. (See the Graduation Requirements section of catalog.) **Proof of completion of prerequisites required:** Copy of EPT or competency scores or verification of exemption; proof of Cr in Rhetoric and Writing 92A or 92B or 97A or 97B, or notification from the Department of Rhetoric and Writing Studies.

Designed to develop and enhance composition and reading skills. Focus on writing skills that contribute to academic growth and development. Not open to students with credit in English 100 or higher-numbered composition or creative writing course or Linguistics 100 or Mexican American Studies 111B.

140. Oral Communication (3) I, II

Practice in speaking, critical listening, reasoning and organizing. Theory and techniques of communications used to evaluate the effect they have on the lives of Blacks and others. Not open to students with credit in Mexican American Studies 111A or Speech Communication 103.

170A-170B. Afro-American History (3-3) I, II

American history from a Black perspective. These courses satisfy the graduation requirement in American Institutions.

200. Intermediate Expository Writing and Research Fundamentals (3)

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements; and Africana Studies 120 or Linguistics 100 or Mexican American Studies 111B or Rhetoric and Writing 100. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Development of intermediate expository writing skills and application of practical research principles.

250. Psychology of Blackness (3)

Facts, principles, and concepts which are basic to understanding human behavior. An analysis of the psychological motivations and behavioral responses of and toward Afro-Americans.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

320. Politics and Economics of Black Urban Development (3)

Prerequisite: Africana Studies 101A or completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Political economy of urban growth, development, and redevelopment examined in historical and contemporary contexts. Focus on race and class inequality and conflict; effectiveness of public and private sector decisions and programs; evolution of African American urban poor and their communities. (Formerly numbered Afro-American Studies 220.)

321. Black Political Participation in America (3)

Prerequisites: Africana Studies 101A or 102 or 170A or 170B. Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Afro-American political life and development in the United States. Interaction between Afro-Americans and various actors, institution processes, and policies of the American system of politics and governance.

322. African American Political Thought (3)

Prerequisite: Africana Studies 101A or completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Political and social thought underlying principles, goals, strategies developed by African Americans in struggle for social development and human rights. Focus on twentieth century thought. (Formerly numbered Afro-American Studies 221.)

325. Public Policy and Afro-American Community (3) II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Impact of public policy on Afro-American community: theory and practice of policy formulation, implementation, evaluation, and modification for specific problems in Afro-American community; roles of governmental officials; administrative arrangements; organizational processes; and community groups in policy making.

330. Black Child Development (3) II

Attitudes, needs and problems of the Afro-American child with emphasis on new approaches and insights into the development of positive changes for the child's growth and development.

331. The Black Family (3) I

Structure and functions of the Black family in contemporary American society.

332. Black Women: Myth and Reality (3)

Prerequisites: Africana Studies 101A or 101B and 102.

Images of Black women in America and how those images have been distorted.

341. Cultural Patterns and African American Identity (3)

Prerequisites: Africana Studies 101A or completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Impact of social institutions on African American identity and cultural patterns. (Formerly numbered Afro-American Studies 231.)

350. The Black Total Theatrical Experience (3) I, II

Six hours of activity.

A "living performing arts museum" that utilizes folktales, literature, music, Africanisms, folk myths and history to artistically reflect various cultural and historical aspects of Black life. Performances are important aspect of course. Maximum credit six units.

360. Communications and Community Action (3)

Prerequisite: Africana Studies 140 (field assignments are a major part of this course).

Application of the basic theories of communication through field projects. Study of the communication problems that exist between sociopolitical groups and the media.

362. Rhetoric of Black America (3)

Prerequisite: Three units in Afro-American history and communications.

Rhetoric of Black Americans from David Walker to the present, the role rhetoric has played in the history of Black people and an analysis of the Black audience in terms of the Black experience.

363. Sociocultural Analysis of Black Languages (3)

Prerequisite: Three units in Africana Studies.

Social and cultural functions of Black languages, verbal and non-verbal, in Afro-American life, and their profound impact on larger society. Also, a probe into issues concerning validity of Black English.

365. African American Literature (3)

Prerequisite: Africana Studies 101B or completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Early and contemporary writing by African American authors. Issues of literary form, canon formation and sociopolitical impact of the literature upon African American culture. (Formerly numbered Afro-American Studies 260.)

380. Blacks in the American Justice System (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Interpretation and application of constitutional principles and judicial decisions to political and social problems faced by Afro-Americans.

385. African American Music (3)

Prerequisite: Africana Studies 101B or completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

African American music from its African roots to present. Consideration of musical styles, events, significant contributors as well as role of sociocultural values in development of music (Formerly numbered Afro-American Studies 180.)

420. Afro-Americans and the Politics of Urban Education (3)

Prerequisites: Africana Studies 101A or 102. Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Struggle against Afro-American subordination and complexities, contradictions, and dilemmas of formulating and implementing quality education and equal opportunity policies. Interaction between politics and education during eras of machine, reform, and postreform politics.

445. Ethnicity and Social Psychology (3)

Prerequisites: Africana Studies 101A or 250. Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Analysis of major social psychological theories specifically focusing on how these theories relate to minority attitude/value formation and group behavior. Strategies for resolving social issues.

448. Black and Non-Black Interpersonal Relations (3)

Cognitive and experiential examination of contemporary issues around Black and non-Black interpersonal relations. Authenticity in relationships, interracial trust, personal development, conflict resolution, and proactive belief systems. Central aim to assist Blacks and non-Blacks to facilitate communication.

451. Black Consumer Psychology (3)

Prerequisite: Africana Studies 250.

Attitude values and decision making of Black people as consumers. Laws and techniques of manipulating consumers.

452. Race Relations Strategies (3)

Prerequisite: Africana Studies 101A or 102 or 250.

Systematic inquiry into contemporary strategies and systems employed to ease racial tensions. Trends and approaches in military, religious, economic, educational, and other social institutions examined, focusing on those that offer most promise in terms of facilitating racial harmony.

453. Issues in Mental Health: A Multicultural Perspective (3)

Prerequisite: Africana Studies 250.

Examination of multicultural mental health issues. Institutionalization, treatment, social policy funding, prevention, insurance, and community programs will be covered. Relevant research literature will be examined.

460. Black Images in Western Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Study of how the image of the Black has been portrayed in Western (white) literature and the attitudes and images of non-Black writers towards Blacks.

461. Studies in African American Literature (3)

Prerequisite: Africana Studies 101B.

Focused studies in African American literature. Analysis of themes, techniques, etc., in fiction, poetry and/or drama.

462. The Harlem Renaissance (3)

Black literature of the 1920s from literary, historical, sociological and cultural perspectives.

463. Black Literatures of the World (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Afro-American literature in context of world literatures by Blacks. Cross-cultural influences between Africa and the Americas.

464. Caribbean Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Political, religious, and musical paradigms in writing from 1900 to present. Politico-religious movements and related art forms (Rastafarian Reggae, Dub Poetry).

470. Comparative History: Afro-American and African Heritage (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Conceptual framework of African history and a comparative study of Afro-American institutions.

471A. Black History, 1492-1877 (3) I

Afro-Americanization and African survivals in the U.S.; origins and development of slavery; growth of free Black communities; anti-slavery movements and Black nationalism; slavery's end and dawn of freedom.

471B. Twentieth Century Black History (3) II

History of social movements and institutions from 1890 to the present. Focus on both leadership and life of the masses.

472. Slavery (3)

Prerequisites: Africana Studies 101A or 170A or History 100 or 105 or 110A or 115A. Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

History of enslavement of Blacks in the new world; contrasted to patterns of slavery in African societies and in the ancient Mediterranean world. Further contrasts to forms of modern group oppression, such as Nazi concentration camps.

480. History of Afro-American Jazz (3)

Prerequisite: Africana Studies 101B.

Historical development of jazz from its beginnings to the present, based on the ability to identify people, discuss musical styles and events, and to relate these factors to the life of the times.

485. Blacks in the Arts (3)

Prerequisite: Africana Studies 101B or 102.

Academic and artistic perspectives on Black participation in and contributions to the creative and performing arts. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

American Indian Studies

In the College of Arts and Letters

OFFICE: Adams Humanities 3104

TELEPHONE: (619) 594-6991

Faculty

Chair: Parker

Associate Professors: Kilpatrick, Parker

Adjunct: Cooper, Cox, Johnson, Rodriguez, Shipek, Watson, White

Offered by the Department

Minor in American Indian studies.

Courses in American Indian studies.

Major work in American Indian studies is not offered.

The Minor

A minor in American Indian studies provides students with a liberal education which focuses on cultural diversity. Individuals will attain competency in a broad understanding of the human condition which will relate closely to the areas of public relations, cultural pluralism, and race relations. Students pursuing majors in mass media, politics, journalism, and education will find that a minor in American Indian studies opens a new spectrum of human understanding and critical analysis of professional life.

The American Indian studies program focuses on individual elements that comprise the native American cultures. Using literature, art, history and politics as touchstones, students come to understand the individual as well as tribal character of the Indian peoples. The academic area also draws comparisons between American Indian life and the life of other members of American society.

Career opportunities for graduates include jobs in business, education, government, politics, social sciences, and health and human services. Students have also found positions in programs for Indian tribes and reservations. Federal agencies also seek people with knowledge about and experience with American Indian people and their culture. Agencies include the Bureau of Indian Affairs, the Indian Health Services, the Bureau of Land Management, and the U.S. Forestry Services.

American Indian Studies Minor

The minor in American Indian studies consists of a minimum of 15 units to include American Indian Studies 110; nine of the 15 units must be in upper division courses selected from American Indian studies or other appropriate departments (e.g., anthropology or history) in consultation with the departmental adviser.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

110. American Indian Heritage (3) I, II

Major American Indian themes, beliefs, and practices and their impact on Western civilization through institutions, art, literature, philosophy, and religion.

265. American Indian Art (3)

American Indian as a creative person and artistic products from earliest examples to present surveyed through cultural elements affecting symbols, material, and media. Diverse forces generating forms which have become tradition will be central to the study.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES

(Intended for Undergraduates)

300. American Indian Oral Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Pre-twentieth century American Indian oral and symbolic traditions including creation and origin legends, coyote stories, ceremonial songs, oratory, and memoirs. (Formerly numbered American Indian Studies 200.)

303. American Indian Women in American Society (3)

Historical and contemporary analysis of the role of Indian women in both Indian and dominant society.

320. American Indians in Contemporary Society (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Sociological understanding of the American Indian groups in contemporary society with emphasis on the relationship to dominant society and why the focus has been on Indians as social problems.

400. The American Indian Political Experience (3) I

Social and political response to dominant group policies by the American Indian as compared to other minority groups.

420. Indian Peoples of California (3) I

Indian peoples of California. Their histories and cultures from oral traditions to contemporary issues. Focus on selected Indian tribes and communities.

425. Indians of the Plains (3) II

Indian peoples of the Plains. Their histories and cultures from oral traditions to contemporary issues. Focus on selected Indian tribes and communities.

430. American Indian Poetry and Fiction (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Contemporary American Indian poetry and fiction explored in works of Welch, Ortiz, Momaday, Silko, Deloria, Allen, Erdich, and others.

435. Indians Through Film and Television (3) II

Images of Indians in film and television. Impact of movies and television on popular concepts of Indians. Films viewed in class.

440. American Indian History (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Historical analysis of Indian-White contact. Emphasis on the impact of historical events upon the various cultures.

470. Roots of Indian Tradition (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

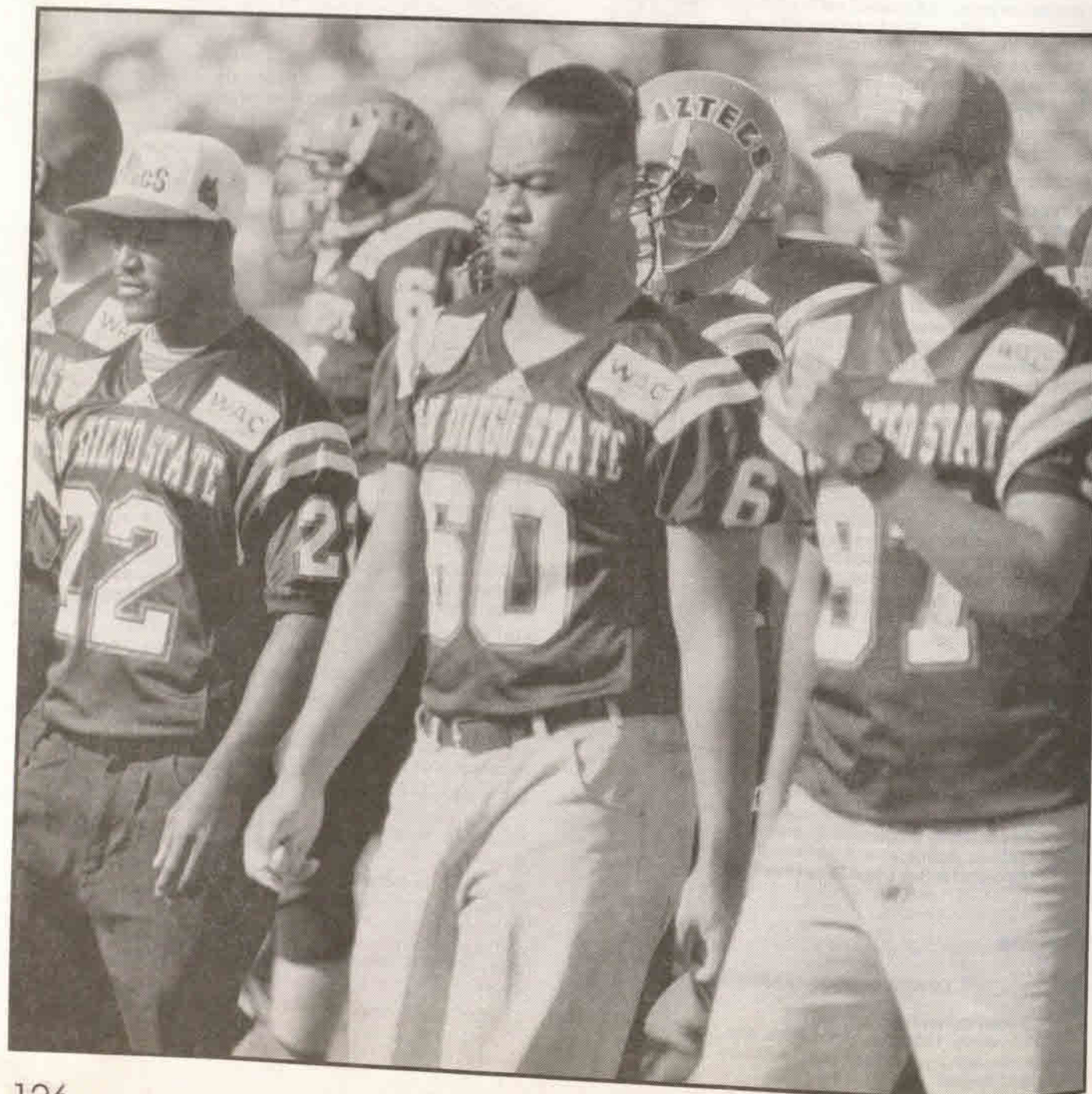
Spirits, prophecies, and renewals of the Indian way compared through symbols and ceremony. Religions will be surveyed as they have been influenced by foreign elements and philosophies. Influences on values and tribalism as reflected through symbols and other measures.

496. Topics in American Indian Studies (1-3)

An undergraduate seminar. See Class Schedule for specific content. Maximum credit six units. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-4)

Prerequisite: Consent of instructor. Individual study. Maximum credit six units.



Faculty

The American studies program is administered through the American Studies Committee. Faculty assigned to teach courses in American studies are drawn from departments in the College of Arts and Letters.

Chair: DuFault (History)

Adviser: Gregory (English)

Committee: Colquitt (English), Deutsch (Child and Family Development), Donahue (Linguistics), DuFault (History), Ford (Geography), Gregory (English), Griswold (English), Huckle (Women's Studies), Koolish (English), Kornfeld (History), Kornweibel (Africana Studies), Kushner (History), Lewin (Political Science), McCaffery (English and Comparative Literature), Meadows (Music), Real (Telecommunications and Film), Samovar (Speech Communication), Strom (Teacher Education), Vartanian (History), Wall (English)

Offered by American Studies

Major in American studies with the B.A. degree in liberal arts and sciences.

Minor in American studies.

The Major

American studies is an interdisciplinary program designed to bridge the division of knowledge into discrete disciplines. Each of the four program clusters combines American studies core courses, which relate materials and methods from various disciplines, with upper division courses from several disciplines. The courses are selected to focus on and bring into interrelation one group of American people, one social or cultural process, one place and one period.

The special integrating work in the student's major program is a series of special studies under the direction of members of the American studies faculty in which the student produces a paper or project interrelating the four focuses of his or her studies. The paper or project must make use of two or more disciplines' analyses of the same material. Because American studies finds its center in the concept of culture, the paper or project must deal at least in part with the cultural connections among the four subjects of focus.

With the approval of the American studies adviser, the student may design a program cluster comparable in format to those listed in this catalog but tailored to his or her individual interests.

The minor in American studies is open to all students and is of special interest to international students. The coursework is intended to provide a broad perspective of the American culture - the heritage, the ideas and dreams, and the failures as well as accomplishments.

The flexibility of this interdisciplinary major allows graduates to enter a broad range of career areas, including journalism, law, law enforcement, environmental planning, teaching, archival work, museum curatorship, international business, librarianship or government service. Competencies gained by the American studies major provide a sound basis for entering graduate study in a variety of areas. Many universities have graduate programs in American studies. Graduate work may be required for entrance into a specific career field.

OFFICE: Adams Humanities 4207

TELEPHONE: (619) 594-5262

American Studies

In the College of Arts and Letters

Business and teaching professions in foreign countries welcome American studies majors who can help them understand the way business and social life is conducted in the United States.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

American Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 03131)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Twelve units selected from Anthropology 102, English 250A-250B (three or six units), History 110A-110B (three or six units). (12 units)

Students should note that a number of the upper division required and recommended courses listed below have lower division prerequisites, but these prerequisites do not constitute requirements per se for the completion of the major.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. History 430W, English 508W, 581W, or Rhetoric and Writing 500W, or Sociology 396W with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include American Studies 499, 501, 580; and nine courses from one of the following clusters **or a specially designed cluster.**

In the selected cluster, the student will normally take three courses in one area and two courses in each of three other areas. However, the student must take at least one course in each area. The student may take no more than three courses in one discipline on the major program. The student must file with the Office of Admissions and Records a master plan approved by the adviser for the American studies curriculum.

American Communication

People: Decision Makers

Economics 370; History 496; Management 356; Political Science 335, 422, 436, 531; Public Administration 520; Sociology 531; Women's Studies 530.

Process: Communications

No more than one course in each discipline.
Africana Studies 360, 362, 461, 480; American Indian Studies 430; Art 558; English 524, 525; Journalism 408, 500, 502, 503; Mexican American Studies 335; Music 351D; Political Science 426; Psychology 340; Sociology 456; Speech Communication 475.

Place: United States

Geography 321; History 534, 535A, 535B, 546A, 546B, 547A, 547B, 548A, 548B.

Period: Nuclear Age

Two of the following:
English 525; History 536; Natural Science 333; Women's Studies 530.

Special Study: American Studies 499.

Cultural Institutions and Artifacts

People: The Family

Africana Studies 331; Family Studies and Consumer Sciences 436; Mexican American Studies 320; Sociology 522.

Process: Material Culture

Anthropology 302; Art 347, 550; English 526 (when offered as American Literature and American Art); Geography 354, 555; Natural Science 333.

Place: The Southwest

No more than one course in each discipline.
History 537B, 538, 541A, 541B; Mexican American Studies 320, 335, 350A, 350B, 376.

Period: Colonial

No more than one course in each discipline.
Anthropology 441, 446; History 530, 531, 548A.

Special Study: American Studies 499.

Cultural Pluralism

People: Ethnic Community

Sociology 355 and one of the following: Africana Studies 471B; American Indian Studies 440; Anthropology 446; Mexican American Studies 320 or 350B.

Process: Development of Identity

Africana Studies 362 or 461; Mexican American Studies 335; Music 351; Political Science 531; Sociology 430 or 457; Women's Studies 352 or 553 (when American in content).

Place: The City

Economics 458; Geography 354 or 555; Mexican American Studies 303; Political Science 422; Public Administration 512; Sociology 557.

Period: 1840 to the Present

No more than one course in each discipline.
English 523, 524, 525, 527, 528 (when appropriate); History 534, 535A, 541B, 548B; Women's Studies 341B or 530.

Special Study: American Studies 499.

Majority American Goals and Values

People: The Middle Class

Art 560; History 548B; Political Science 531; Sociology 531; Women's Studies 530.

Process: Tradition and Change in the Evolution of American Goals and Values

No more than one course in each discipline.
Anthropology 444; Economics 474; English 525; History 435, 545A, 545B, 548A, 548B; Management 356, 456; Political Science 334, 335, 345, 346, 348; Sociology 433, 456, 457, 537.

Place: United States

English 523, 524, 525, 527; Geography 370; History 540, 546B, 547A, 547B; Political Science 305.

Period: Twentieth Century

Economics 338; English 525; History 310B, 535A, 535B, 536; Management 356; Music 351D; Women's Studies 341B.

Special Study: American Studies 499.

American Studies Minor

The minor in American studies consists of a minimum of 18 units to include American Studies 501 (Study of American Culture), and six units selected from History 546A-546B or 547A-547B or 548A-548B; and nine units selected from the courses listed below—six units from one grouping and three from the other, with no more than six units from any one department's or program's offerings:

Humanities: American Studies 580; Art 560; English 522, 523.

Social Sciences: Anthropology 444; Economics 338; Geography 354; Political Science 305; Sociology 433.

With the consent of the American studies adviser, six units in courses not listed here may be included in the student's program. Courses in the minor may not be counted towards the major but may be used to satisfy preparation for the major and general education requirements. A minimum of six upper division units must be completed at San Diego State University. In designing their American studies minor program, students may not include courses drawn from their major department.

Courses

LOWER DIVISION COURSE

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES

(Intended for Undergraduates)

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study in interdisciplinary humanities and social sciences work. Maximum credit six units.

UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)

501. Study of American Culture (3) II

Prerequisite: Major in American studies; open to other students with interdisciplinary interests.

American studies as a discipline, the important methods of the field, and variety of materials for interdisciplinary study.

580. Topics in American Studies (1-3) I, II

Topics dealing with cultural images and myths, social protest, folklore; themes focusing upon fear, alienation and nationalism; problems around racism, minorities and counter-cultures. See Class Schedule for specific content. May be repeated once with new content; and with the approval of the adviser, more than once by American studies majors. Maximum credit six units applicable to a master's degree in American studies.

OFFICE: Storm Hall 143B

TELEPHONE: (619) 594-5527

Faculty

Emeritus: Anderson, Goldkind, Rogers, Rollefson, Watson
Chair: Himes
Professors: Ball, Greenfeld, Henry, Himes, Leach, Lippold, Pendleton, Rohrl, Whitney
Associate Professor: Moore
Assistant Professor: Sonek

Offered by the Department

Master of Arts degree in anthropology.
Major in anthropology with the B.A. degree in liberal arts and sciences.
Minor in anthropology.

The Major

Anthropology is the far-reaching study of human beings as both biological and culturally adaptive organisms. Anthropologists study the physical and mental characteristics, social relationships, institutions, customs, myths, and geographic distribution of human populations.

The anthropology major provides a broad background for the various specialized areas in the field, such as archaeology, the analysis of past cultures; cultural anthropology, the study of cultural similarities and differences in contemporary societies; linguistics, the evaluation of cultural differences in communication; and physical anthropology, the analysis of biological characteristics of past and present populations. Elective courses provide information on the newest developments in the field and give the anthropology graduate an understanding of human nature in the context of past and present environmental influences.

Employment opportunities for anthropology graduates include work in senior citizen and minority agencies, the National Park Service, state archaeological services, marketing, environmental impact projects, urban affairs, state and local governmental agencies, and business.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser during the first semester after declaration or change of major.

Anthropology Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22021)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in anthropology courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Anthropology 101, 102. (6 units)
Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or one of the approved writing courses with a grade of C (2.0) or better.

Anthropology

In the College of Arts and Letters

Major. A minimum of 33 upper division units in Anthropology to include Anthropology 301, 302, 303, 304; and 21 additional units of upper division courses in anthropology. The student will file with the Office of Admissions and Records a master plan approved by the adviser for the anthropology curriculum.

Anthropology Minor

The minor in anthropology consists of a minimum of 15 units in anthropology, 9 to 12 units of which must be in upper division courses. The 15 units must be selected from one of the following areas:

General: Anthropology 101, 102 and nine units selected from 301, 302, 303, 304, 580.

Archaeology: Anthropology 101 and 302 and nine units selected from Anthropology 471, 472, 481, 483, 496 (if appropriate), 499, 561, 580.

Biocultural: Anthropology 101 and 301 and nine units selected from Anthropology 406, 483, 496 (if appropriate), 499, 500, 501, 503, 504, 505, 506, 507, 508, 509, 580.

Linguistics: Anthropology 102, 304 and 410 and six units selected from Anthropology 303, 350, 496 (if appropriate), 499, 580, 582, 583.

Sociocultural: Anthropology 102 and 350 and nine units selected from Anthropology 303, 424, 430, 439, 496 (if appropriate), 520, 529, 580.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

101. Human Biocultural Origins (3) I, II
(CAN ANTH 2)

Human's place in nature; fossil evidence for hominid evolution; evolutionary theory; racial, clinal and genetic variability; relationship of physical and cultural adaptations; the rise of civilization.

102. Introduction to Cultural Anthropology (3) I, II
(CAN ANTH 4)

May be taken before Anthropology 101.
Human's relationship to the environment; types of preliterate society; systems of social organization, politics, economics, religion, and language.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES

(Intended for Undergraduates)

301. Principles of Physical Anthropology (3) I, II

Two lectures and three hours of laboratory.
Prerequisite: Anthropology 101.
Primate comparative anatomy and human paleontology. Physical measurement of the living subject and skeletal specimens. The statistical treatment of data in physical anthropology. Applications of physical anthropology in industry and medicolegal problems.

302. Principles of Archaeology (3) I, II

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 101.

History, method, and theory of archaeological data acquisition and interpretation. Methods of data recovery and analysis suitable to resolution of historical and processual questions. Archaeological examples from a worldwide sample of prehistoric and historic societies.

303. History of Ethnological Theory (3) I, II

Prerequisite: Anthropology 102.

Development of theories which explain nature of culture and cultural variation. Applications of theory of culture to field methods in ethnography and interpretation of ethnographic findings. (Formerly numbered Anthropology 305.)

304. Principles of Anthropological Linguistics (3) I, II

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 102.

The structural nature of language. How languages differ, change and influence each other. The language families of the world. The significance of language for human social life in a variety of cultures.

312. Archaeological Field Techniques (3) I, II, S

Six hours of activity.

Prerequisite: Anthropology 302.

Archaeological excavation of significant sites in San Diego. Techniques of excavation, recording, and surveying.

349. Roots of Civilizations (3)

Prerequisite: Open only to upper division students who have completed the General Education requirement in Foundations II.C., Humanities.

Origins and major attributes common to civilizations. Form and function of fundamental characteristics in different civilizations. Examples taken from Africa, Asia, the Near East and the New World.

350. World Ethnography (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Cultural patterns of representative peoples. Industries, arts, social organization and supernaturalism considered with view to environmental adjustment, historical development and functional interrelation. Ethnological theories reviewed and applied in interpreting illustrative societies.

402. Dynamics of Biocultural Diversity (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Interaction of biology and culture in human populations. Relating genetic and cultural processes to the changes in human populations over time.

406. Nonhuman Primates (3)

Prerequisite: Anthropology 101.

Basic aspects of nonhuman primates, geographical distribution, ecology (habitat, diet), external and internal morphology, locomotion and social behavior, reproduction and development.

410. Language in Culture (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Survey of anthropological interests in the study of language and of linguistic interests in the sociocultural context of language.

422. Music and Culture (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.C., Humanities.

How the forms, functions and meanings of music vary crossculturally. Understanding a society's music historically, holistically and

experientially, with emphasis on non-Western music. Universals of music and music use. Ethnological theories of music and music change.

424. Primitive Religion (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Beliefs and ritual of primitive man. Magic and religion. Forms of animism and polytheism. Primitive mentality and the supernatural.

430. Anthropology of Law and Dispute Processing (3) I, II

Prerequisite: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Law, social control, and dispute processing studied in sociocultural context. Law in Western society compared with "law-ways" in a number of traditional or nonindustrialized cultures. Basic concepts and theories about law examined crossculturally.

432. Principles of Personality in Culture (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Principles related to the determinants of human behavior contained in culture. Studies of behavior crossculturally.

439. Cultural Comparisons Through Film (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Principles of cultural anthropology to include signs and proxemics, cultural prerequisites, kinship and social organization, and law and values. Feature and documentary films.

442. Cultures of South America (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Indian cultures in terms of origins, migration, relation to habitat, cultural variation and relevance to contemporary trends. Development of Inca civilization, the effects of the Spanish conquest and its aftermath.

444. American Culture (3)

An "inside-out" view of America. What culture has to do with feeling like an American. Theory and method in anthropology. Approaches include subcultures, American values, and mass media.

445. Ethnology of North America (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Native cultures and the role of environmental and historical factors in North America.

446. Southwestern Ethnology (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Indian cultures of the American Southwest in historic times; ecological adaptations, responses to white contact, adaptations to modern American life.

448. Cultures of Oceania (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

The aboriginal cultures and peoples of Australia, Melanesia, Micronesia, and Polynesia in prehistoric, historic, and modern times.

449. Cultures of Sub-Saharan Africa (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Indigenous peoples and cultures of Africa south of the Sahara. A comparison of cultural traditions, social organization, and modern trends in newly emergent nations of the area.

450. Cultures of India (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Indigenous peoples and cultures of India and contiguous areas of South Asia. The development of cultural traditions, social organization, and modern trends.

452. Japanese Society (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Culture and social organization of Japanese people. Traditional Japanese economic, social, political and religious institutions. Okinawa and overseas Japanese. Recent industrial and urban changes in modern Japan.

453. Cultures of Southeast Asia (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Anthropology 102.

Cultural anthropological study of cultures and societies of mainland (Myanmar, Thailand, Laos, Cambodia, Vietnam) and insular (Malaysia, Indonesia, Philippines) Southeast Asian nations. Traditional economic, social, political, and religious institutions. Recent changes in modern Southeast Asia.

471. Archaeology of North America (3)

Prerequisite: Anthropology 101 or 102.

Origin of the American Indian and survey of the main prehistoric cultures of the North American continent.

472. Southwestern Prehistory (3)

Prerequisite: Anthropology 101 or 102.

Prehistoric Indian cultures in the American Southwest; ecological adaptations and outside cultural influences.

481. Archaeology of East Asia and Oceania (3)

Prerequisite: Anthropology 101 or 102.

Culture change in the areas of China, Siberia, southeast Asia, Australia, Japan and Oceania beginning with the first evidence of hominid activity through ethnohistorically known societies.

483. Health and Nutrition in Antiquity (3)

Prerequisite: Anthropology 101 or 102.

Health and disease patterns in human populations from the earliest times. Analysis of food resources, their impact on health and nutrition of prehistoric peoples.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)

500. Primate Social Behavior (3)

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 101.

Analysis of modes of primate socialization and development of social behavior with emphases on communication, group structure, aggression, and sex. Various methods of analysis and observation practiced utilizing primate collection at the San Diego Zoo.

501. Paleoanthropology (3)

Prerequisite: Anthropology 101. Recommended: Anthropology 301.

Fossil evidence for human evolution. Comparative and functional anatomy of fossil human and infrahuman primates; geochronology, paleoecology, and cultural associations; taxonomic implications.

503. Human Variation (3)

Prerequisite: Anthropology 101.

Morphological, physiological and genetic aspects of human variability. Significance of this diversity in the biological adaptations of human populations.

504. Primate Anatomy (3)

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 101.

Primate anatomy both regional and systemic, including skeletal, cardiovascular and digestive systems; the integument and otolaryngology of primates.

505. Human Osteology (3)

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 101. Recommended: Anthropology 301 and/or Biology 150.

Identification of individual bones and teeth; sex, age, and racial variation; stature reconstruction; continuous and discontinuous morphological variations; paleopathology. Training in observations, measurements, and analyses.

506. Physical Anthropology of the Living (3)

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 101. Recommended: Anthropology 301.

Theory and practice of techniques in measurement and description of biological variations in modern populations.

507. Genetic Markers and Anthropology (3)

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 101.

Use of genetic markers in the study of human populations. Biology of blood groups, serum proteins, enzymes, etc., and analyses of gene frequencies. Significance of genetic markers in evolutionary studies.

508. Medical Anthropology (3)

Prerequisite: Anthropology 101 or 102.

Evolution and ecology of disease, medical beliefs and practices in non-Western cultures, and complexities of health care delivery in pluralistic societies.

509. Culture and Biological Aging (3)

Prerequisite: Anthropology 101 or 102.

Do different cultures age at different rates? Theories of biological aging, genetics of longevity and cultural influences on biological aging. Process of aging and role of the aged in various cultures.

520. Ethnographic Field Methods (3)

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 102.

The problems and techniques of obtaining data in ethnological and Social anthropological field work; preparation, gaining and maintaining rapport, evaluating data, participant observation. A review of literature followed by work with informants.

529. Urban Anthropology (3)

Prerequisites: Anthropology 102 and six upper division units in anthropology.

Urban adaptations of past and present societies. Descriptive topics and applied concerns regarding urban origins, migrations, kinship, family, ethnicity, stratification, and change. Ethnographic examples drawn from Western and non-Western societies.

560. Advanced Archaeological Field Methods (3)

One lecture and six hours of laboratory.
Prerequisite: Anthropology 312.
Advanced projects in excavation and stabilization of ruins; archaeological surveys, laboratory analysis and preparation of reports.

561. Archaeological Laboratory Methods (3)

Two lectures and three hours of laboratory.
Prerequisite: Anthropology 560.
Application of palynology, paleontology and relevant technologies. Individual laboratory research project required.

580. Anthropological Data Analysis (3)

Two lectures and three hours of laboratory.
Prerequisites: Anthropology 101 or 102 and a statistics course.
Recommended: Psychology 270 or Sociology 201.
Computer oriented data analysis class utilizing anthropological data sets. Special section of the SPSS computer workshop is required.

582. Regional Anthropology (3)

Prerequisite: Anthropology 102.
Study of societies in a major geographical region of the world such as Africa, the Arctic, East Asia, Europe, Latin America, the Middle East, North America, Oceania, or South Asia. See Class Schedule for specific content. May be repeated with new content. Maximum credit six units.

583. Topical Anthropology (3)

Prerequisite: Anthropology 102.
Study of a major subdiscipline such as political anthropology, economic anthropology, social anthropology, psychological anthropology, cultural ecology, applied anthropology, anthropological genetics, or environmental archaeology. See Class Schedule for specific content. May be repeated with new content. Maximum credit six units.

GRADUATE COURSES
Refer to the Graduate Bulletin.



In the College of Professional Studies and Fine Arts

OFFICE: Art 505

TELEPHONE: (619) 594-6511

Accredited by the National Association of Schools of Art and Design and the Foundation for Interior Design Education Research.

For purposes of exhibition and reference, the school reserves the right to retain for a limited period some of each student's work produced in class.

Faculty

Emeritus: Baker, K., Berg, Bigelow, Covington, Dirks, Frick, Higgins, Hodge, Hopkins, Hunter, Perczel, Roth (Longenecker), Sorenson, Tanzer, Wallace
Director: Orth
Professors: Austin, Baker, R., Cotten, Dominguez, Esser, Fisch, Hayakawa, Miller, Orth, Ray, Rigby, Roberts-Fields, Rogers, Shirk
Associate Professors: Burkett, Cooling, Dumlao, Mansfield, Merritt, Nelson, Yapelli
Assistant Professors: Berelowitz, Maruyama, Moaney
Lecturers: Nakamura, Schamu, Siprut

Offered by the School of Art, Design and Art History

Master of Arts degree in art.
Master of Fine Arts degree in art.
Major in art with the B.A. degree in liberal arts and sciences.
Emphasis in art history.
Emphasis in studio arts.
Major in art with the B.A. degree in applied arts and sciences.
Emphasis in applied design.
Emphasis in environmental design.
Emphasis in graphic design.
Emphasis in interior design.
Emphasis in painting, printmaking, and photography.
Emphasis in sculpture.
Teaching major in art for the single subject teaching credential.
Minor in art.
Minor in art history.
Certificate in Art (available at Imperial Valley Campus only).

The Major

A significant concern of the School of Art, Design and Art History is the creative growth of its students. The school focuses on the development of sound undergraduate programs which provide a strong basic foundation in art. A major in art may be planned with an emphasis in applied design, with specialties in ceramics, furniture, metal-smithing, jewelry, and textiles; art history; studio arts; environmental design; graphic design; interior design; painting, printmaking, and photography; and sculpture. A program for those preparing for a single subject teaching credential is also available, as is a broad spectrum of courses for both majors and nonmajors in art history, art appreciation, basic drawing and design.

All emphases except art history require a set of core courses consisting of two courses each in drawing, design, and the survey of art history of the Western world. It is strongly recommended that all students complete the core requirements during their freshman year, or at least prior to taking beginning coursework in a specific program emphasis. It is recommended that students take courses from other emphases in order to enhance their overall art experience. In addition to the undergraduate degree, the school offers a Master of Arts degree (30 units) in all of these emphases and a Master of Fine Arts degree (60 units).

Although a degree in art is often pursued as a means of self-fulfillment and creative growth, graduates of the school are employed in a variety of settings. The programs in environmental design, interior design, and graphic design have a preprofessional orientation supplemented by a strong liberal arts background. Environmental design and interior design can lead to interior, architectural, landscape design or city planning. Graphic design prepares the student for the areas of environmental graphics, art direction, visual design for the contemporary media of advertising, or editorial illustration. The areas of painting, printmaking, photography, and sculpture prepare students for professional attitudes toward the fine arts and the continuance of their educational experience in graduate schools with the goal of teaching at institutions of higher learning. The preprofessional program in art education prepares the student for teaching in either elementary or secondary schools. The applied design program can be developed to specialize in ceramics, furniture design, jewelry, metal-smithing, textile design and weaving.

Art Major

With the B.A. Degree in Liberal Arts and Sciences

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in art courses can apply to the degree for students with an emphasis in Art History. For students majoring in art with an emphasis in studio arts no more than 57 units in art courses can apply to the degree.

This major in art may be planned with an emphasis in studio arts or art history.

A minor is not required with this major.

Emphasis in Art History
(Major Code: 10031)

Preparation for the Major. Art 100, 101, 158, 258, 259, and 263. (18 units)

Foreign Language Requirement. Four semesters of French or German, or successful completion of a proficiency examination in either French or German. The requirement may be met by taking German 100A, 100B, and 202; French 100A, 100B, 200A, and 200B; or by passing the Graduate School Foreign Language Examination in French or German; or by passing the French Foreign Language Graduation Requirement Waiver Examination (contact the School of Art, Design and Art History for permission to take this examination).

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in art history to include Art 593; 24 units selected from Art 371, 557 through 577.

Emphasis in Studio Arts
(Major Code: 10021)

Preparation for the Major. Art 100, 101, 102, 103, 203, 204, 216, 258, 259, and six units of art electives. (33 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units in art to include Art 403, 404, and 500; six units of art history; and nine units of art electives selected in consultation with an adviser.

Art Major

With the B.A. Degree in Applied Arts and Sciences

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Emphasis in Applied Design (Major Code: 10021)

Preparation for the Major. Art 100, 101, 102, 103, 220, 258, 259, and six units of art electives. (27 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in art to include three units from each of the areas listed below, and six units of extended work in one of the areas; three units of art electives; and six units of art history.

Fiber: Art 334, 435, 436, 534, 535, 536

Metal: Art 331, 431, 432, 531, 532, 533

Clay: Art 325, 425, 525, 526

Wood: Art 323, 423, 523

Emphasis in Environmental Design (Major Code: 10021)

Preparation for the Major. Art 100, 101, 102, 103, 148, 247, 248, 249, 250, 251, 258, 259. (36 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in art to include Art 348, 450, 454, 547, 550; six units selected from Art 323, 381, 416, 451, 453, 481, 552, 581, 591; and six units of art history (may include Art 581).

Emphasis in Graphic Design (Major Code: 10091)

Preparation for the Major. Art 100, 101, 102, 103, 241, 243, 258, 259; and six units selected from Art 203, 204, 210, 240. (30 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in art to include Art 341, 441, 541; six units of art history; and twelve units selected from Art 340, 440, 443, 444, 445, 540, 542, 543, 544.

Emphasis in Interior Design (Major Code: 02031)

Art majors wishing to enter one of the Interior Design upper division courses (Art 451, 453, 552, 553) must receive, as a condition of junior level qualification, a passing evaluation of a portfolio of work submitted to the Interior Design Evaluation Committee. Any advance enrollment in the above-listed upper division courses will remain provisional until clearance of the portfolio review. Reviews are held prior to the beginning of the fall and spring semesters. See the School of Art, Design and Art History office for specific information concerning current policies pertaining to the review, content of the portfolio, and the schedule to be observed.

Preparation for the Major. Art 100, 101, 102, 103, 148, 247, 248, 249, 250, 251, 258, 259. (36 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 30 upper division units in art to include Art 352, 451, 452, 453, 552, 553; six units selected from Art 381, 481, 581; three units selected from Art 323, 325, 334, 436, 450, 547, 591; and three additional units of art history.

Emphasis in Painting, Printmaking, and Photography (Major Code: 10021)

Preparation for the Major. Art 100, 101, 102, 103, 203, 258, 259, and six units selected from Art 204, 205, 207, or 210. (27 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units in art to include six units of art history, and 18 units selected in consultation with the adviser from Art 403, 404, 405, 406, 407, 408, 410, 411, 416, 500, 502, 503, 504, 506, 509, 510, 511.

Emphasis in Sculpture (Major Code: 10021)

Preparation for the Major. Art 100, 101, 102, 103, 216, 217, 258, 259; and three units selected from Art 203, 204, 220, 225, 231, 234. (27 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units to include Art 416, 418, 498A, 516 or 518, 517; six units of art history; and six units selected from Art 323, 331, 403, 404, 500, 516, 518, 591.

Art Major

For the Single Subject Teaching Credential With the B.A. Degree in Applied Arts and Sciences (Major Code: 10021)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education.

This major may be used by students in teacher education as an undergraduate major for the B.A. degree in applied arts and sciences.

Preparation for the Major. Art 100, 101, 102, 103, 204, 216, 220, 225, 258, 259, and three units selected from 203, 205, 210, or 241. (33 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Teaching Major. A minimum of 30 upper division units to include Art 325, 331, 404, 405, 435; six units of art history and nine units selected from Art 416, 425, 431, 436, 504, 535, and 536.

Art Minor

The minor in art consists of a minimum of 21 units in art, to include Art 100 and 101 and 12 units of upper division courses in art taken from art history, applied design, environmental design, interior design, painting, printmaking, and sculpture.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.



Art History Minor

The minor in art history includes a minimum of 21 units in art distributed as follows: Six units to include Art 258, 259, and three units selected from Art 158 or 263. Twelve units selected from Art 371, 557, 558, 559, 560, 561, 562, 568, 573A, 573B, 574, 575, 576, 577.

Courses in the minor may not be used toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Certificate in Art (Imperial Valley Campus)*

The Certificate in Art is a response to the needs of the community for a professionally oriented course of art studies. The certificate requirements are designed to satisfy those who want more than an occasional art course and who are not content with anything less than a solid foundation in a given medium. For apprentice artists, practicing artists, art educators, and others interested in developing their creative abilities, the certificate program demands a significant degree of commitment and meets that involvement with a strong basis in studio skills backed up with art history.

The student must complete an approved selection of six courses (18 units) with a minimum grade point average of 2.5 within a period of six consecutive semesters in order to qualify for the certificate. Candidacy will be established by the director of the program. In some cases, specific course prerequisites may be waived for persons able to demonstrate the skills or knowledge in question. In addition to formal course requirements, the student must submit a portfolio of work for review by a committee made up of the director and other instructional staff.

The Certificate in Art requires a minimum of 18 units to include Art 404 or 500, 406, 557 or 558; and nine units selected with the approval of the adviser from Art 325, 340, 341, 387, 403, 407, 425, 435, 496 (Color Photography; Studio Techniques), 502, 557 or 558 (if not taken above).

* Additional prerequisites required for this certificate.

Courses

LOWER DIVISION COURSES

100. Drawing and Composition (3) I, II (CAN ART 8)

Six hours.

The ordering of two-dimensional space through drawing.

101. Two Dimensional Design and Color (3) I, II, S (CAN ART 14)

Six hours.

Fundamentals of space and color design. Basic course used as a prerequisite for advanced work.

102. Drawing and Composition (3) I, II

Six hours.

Prerequisite: Art 100.

Line and value in drawing; emphasis on structure and proportion, sketching, gesture, and contour drawing.

103. Three Dimensional Design (3) I, II (CAN ART 16)

Six hours.

Prerequisite: Art 101.

Introduction and investigation of design and theory, and practice in three dimensions.

- 148. Visual Presentation I (3) I, II**
Six hours.
Prerequisite: Art 100.
Design drawing techniques including interior presentation drawings, interior detailing, architectural drafting, and lettering. Tools and materials used in the design professions.
- 157. Introduction to Art (3) I, II**
An illustrated lecture course dealing with the meaning of art derived from an investigation of the principles of art. Designed to increase the understanding and appreciation of art.
- 158. Arts of Native America, Sub-Saharan Africa, and Oceania (3)**
Arts of diverse societies of Native America, Sub-Saharan Africa, and Oceania in cultural context. Art forms from ancient to contemporary period.
- 203. Life Drawing (3) I, II**
Six hours.
Prerequisite: Art 102.
Drawing from the nude model. Maximum credit six units.
- 204. Painting (3) I, II (CAN ART 10)**
Six hours.
Prerequisites: Art 101 and 102.
Pictorial composition and techniques of painting. Maximum credit six units.
- 205. Waterbase Media (3) I, II**
Six hours.
Prerequisites: Art 101 and 102.
Composition of still-life and landscape in aqueous media. Maximum credit six units.
- 207. Introduction to Fine Art Photography (3) I, I**
Six hours.
Prerequisites: Art 102 and 103.
Black and white fine art photography including lighting techniques, small format cameras, metering, darkroom instruction, and fine art processes. Maximum credit six units.
- 210. Printmaking (3) I, II (CAN ART 20)**
Six hours.
Prerequisites: Art 101, 102 and consent of instructor.
Introduction and exploration of basic printmaking media. Emphasis on aesthetic and technical processes in intaglio, lithography, relief and serigraphy.
- 216. Sculpture (3) I, II (CAN ART 12)**
Six hours.
Prerequisite: Art 103.
Introduction and experimentation of basic sculpture ideas, methods and materials. Maximum credit six units.
- 217. Figurative Sculpture (3) I, II**
Six hours.
Prerequisite: Art 103.
Creative experimentation with sculptural forms from the human figure.
- 220. Design in Crafts (3) I, II**
Six hours.
Prerequisite: Art 103.
Visual and structural form in crafts.
- 225. Beginning Handbuilt Ceramics (3) I, II**
Six hours.
Prerequisite: Art 103.
Design and construction of handbuilt ceramic forms. Introduction of glaze for surface enrichment. Maximum credit six units.
- 231. Beginning Jewelry and Metals (3) I, II**
Six hours.
Prerequisite: Art 220.
Design and construction of jewelry and small objects in non-ferrous metals. Basic fabrication, forming, and surface embellishment techniques for metal.
- 234. Weaving (3) I, II**
Six hours.
Prerequisite: Art 220.
Structure and design of woven fabrics. Maximum credit six units.
- 240. Graphic Imagery (3) I, II**
Six hours.
Prerequisites: Art 100 and 103.
The organization concepts of design applied to experimental photographic and technical reproductive media, and environmental graphics.
- 241. Beginning Graphic Design (3) I, II**
Six hours.
Prerequisites: Art 102 and 103. **Proof of completion of prerequisite required:** Copy of transcript.
Creative projects exploring the interrelation of fundamental art principles and design using phonetic symbols and typography.
- 243. Intermediate Graphic Design (3) I, II**
Six hours.
Prerequisite: Art 241. **Proof of completion of prerequisite required:** Copy of transcript.
Typographic and design concepts applied to layout for contemporary media.
- 247. The House and Its Environment (3) I, II, S**
Architecture, interior design, landscape and city planning for forming the physical and aesthetic environment.
- 248. Visual Presentation II (3) I, II**
Six hours.
Prerequisites: Art 102, 103, 148. **Proof of completion of prerequisite required:** Copy of transcript.
Methods, materials, and tools of the professional environmental designer stressing art principles.
- 249. Visual Presentation III (3) I, II**
Six hours.
Prerequisite: Art 248. **Proof of completion of prerequisite required:** Copy of transcript.
Methods, materials, and tools of the professional environmental designer stressing art principles.
- 250. The Contemporary House (3) I, II**
Six hours.
Prerequisite: Art 248. **Proof of completion of prerequisite required:** Copy of transcript.
Elementary problems in neighborhood planning, house design and landscaping.
- 251. Interior Design I (3) I, II**
Six hours.
Prerequisites: Art 102 and 103. **Proof of completion of prerequisite required:** Copy of transcript.
Elementary functional and aesthetic studies in interior space and form. Relationships of light, color, texture, shape and volume.
- 258. Appreciation and History of Art (3) I, II (CAN ART 2)**
Art development in painting, sculpture, architecture, and handicrafts from the dawn of art to the Renaissance. Illustrated.
- 259. Appreciation and History of Art (3) I, II (CAN ART 4)**
The period from the Renaissance through the modern school treated in the same manner as in Art 258.
- 263. Far Eastern Art (3) II**
Arts of China and Japan from prehistoric times to present.
- 296. Experimental Topics (1-4)**
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

- 323. Furniture Design (3) I, II**
Six hours.
Prerequisites: Art 102 and 220.
Study of the principles of design through the making of furniture.
- 325. Beginning Throwing-Ceramics (3) I, II**
Six hours.
Prerequisite: Art 220. Recommended: Art 225.
Basic methods of forming, decorating, glazing and firing pottery forms with emphasis on the use of the potter's wheel.
- 331. Beginning Jewelry and Metalwork (3) I, II**
Six hours.
Prerequisite: Art 220.
Creative design and construction in metal of jewelry and small objects. Techniques in three-dimensional forming and constructions in nonferrous metals. Not open to students with credit in Art 231.
- 334. Advanced Weaving (3) I, II**
Six hours.
Prerequisite: Art 220.
Total credit in Art 234, 334 and 534 limited to nine units.
Advanced problems in fabric design and weave construction including tapestry and rug weaving techniques. Maximum credit six units.
- 340. Graphic Imagery (3) I, II**
Six hours.
Prerequisites: Art 102 and 103.
Experimental photographic and technical reproductive media. Not open to students with credit in Art 240.
- 341. Graphic Design (3) I, II**
Six hours.
Prerequisite: Art 243. **Proof of completion of prerequisite required:** Copy of transcript.
Investigation of design concepts relating to advertising.
- 347. The House and Its Environment (3) I, II, S**
Architecture, interior design, landscape, and city planning for forming the physical and aesthetic environment, its simplicities and complexities. Not open to students with credit in Art 247.
- 348. Environmental Media (3) II**
Six hours.
Prerequisite: Art 249.
Design communication and documentation techniques using photography, exhibition, portfolio, and publication orientations as they relate to environmental design.
- 352. Methods and Materials of Interior Design (3) I, II**
Prerequisites: Art 250 and 251.
Topics in successful professional practice including codes, legal liabilities, contractual agreements, project management. Lectures in field settings illustrate methods and materials of installation and explore environmental systems.
- 371. Medieval Art (3) II**
Prerequisites: Art 258 and 259.
Development of painting, sculpture and architecture from the time of Constantine through the Gothic period.
- 381. History and Theory of Environmental Design (3) S**
Prerequisites: Art 258 and 259.
Environmental arts. From earliest times to the fifteenth century.
- 387. Design for Teachers (3) I, II, S**
Six hours.
Prerequisite: Art 101.
A design-crafts course that explores in depth materials and processes that could be used with young people.
- 403. Advanced Life Drawing (3) I, II**
Six hours.
Prerequisite: Art 203.
Drawing the nude model. Maximum credit six units.
- 404. Intermediate Painting (3) I, II**
Six hours.
Prerequisite: Art 204.
Concepts that enhance basic painting principles and a broad range of painting issues. Maximum credit six units.
- 405. Intermediate Waterbase Media (3) I, II**
Six hours.
Prerequisites: Art 101 and 102. Recommended: Art 204 or 205.
Painting issues in transparent and opaque. Maximum credit six units.
- 406. Design and Composition (3)**
Six hours.
Prerequisites: Art 103 and 204.
Structure in picture making.
- 407. Black and White Photography as a Fine Art Medium (3) I, II**
One lecture and four hours of activity.
Prerequisite: Art 207.
Intermediate black and white photography and darkroom techniques combined with independent research in contemporary art and photography. Criticism in contemporary context. Maximum credit six units.
- 408. Color Photography as a Fine Art Medium (3) I**
One lecture and four hours of activity.
Prerequisite: Art 407.
Color photography as a fine art medium, including color theory, transparency and negative film exposure controls, darkroom techniques, and electronic flash and lighting techniques for color photography. Maximum credit six units.
- 410. Intaglio Printmaking (3) I, II**
Six hours.
Prerequisites: Art 203 and 210.
Creative intaglio-etching, drypoint, aquatint, engraving and variations. Emphasis on fine print quality and technical development. Maximum credit six units.
- 411. Lithography Printmaking (3) I, II**
Six hours.
Prerequisites: Art 101 and 203.
Creative lithography-stone and plate planographic process. Emphasis on fine print quality and technical development. Maximum credit six units.
- 416. Intermediate Sculpture (3) I, II**
Six hours.
Prerequisite: Art 216.
Individual investigations into sculpture ideas, methods and materials. Individual development in sculpture. Materials may include clay, plastics, paper or wood. Maximum credit six units. (Formerly numbered Art 416A, 416D, 416E.)
- 418. Metal Sculpture (3)**
Six hours.
Prerequisite: Art 216.
Sculpture ideas and methods using metal fabrication and introductory foundry processes. Individual development in sculpture. Maximum credit six units. (Formerly numbered Art 416C.)
- 423. Advanced Furniture Design (3) I, II**
Six hours.
Prerequisite: Art 323.
Advanced individual design: Exploration of materials, process and function. Maximum credit six units. Maximum combined credit of 12 units in Art 323, 423, and 523.

- 425. Intermediate Ceramics (3) I, II**
Six hours.
Prerequisite: Art 325.
Continuation of Art 325. Further development of knowledge, skills and philosophy of ceramics through individual creative projects.
- 431. Intermediate Jewelry and Metalwork (3) I, II**
Six hours.
Prerequisite: Art 231 or 331.
Further development of design and metalworking skills specifically related to jewelry. Specialized techniques such as casting, chasing, stone setting, die forming and enameling.
- 432. Metalsmithing (3)**
Six hours.
Prerequisite: Art 231 or 331.
Creative design and techniques in metalsmithing.
- 435. Nonwoven Textile Construction (3) I, II**
Six hours.
Prerequisite: Art 220.
Textile structures with an emphasis on nonloom techniques.
- 436. Textile Design (3) I, II**
Six hours.
Prerequisite: Art 220.
Application of design for the textile surface, using a broad variety of media and processes appropriate for both the individual designer and commercial reproduction. Media include stencil, block, silk-screen, batik, and tie-dye. Maximum credit six units.
- 440. Advanced Graphic Design – Environmental Graphics (3)**
Six hours.
Prerequisite: Art 241.
Study of visual design for contemporary architectural, motivational, display traffic and guidance graphics.
- 441. Advanced Graphic Design – Media (3) I, II**
Six hours.
Prerequisite: Art 341. **Proof of completion of prerequisite required:** Copy of transcript.
Application of visual design concepts to graphic design, advertising media and technical reproductive processes.
- 443. Drawing and Illustration for Graphic Design (3) I, II**
Six hours.
Prerequisites: Art 103 and 203.
Disciplines of realistic, descriptive illustration. Methods, materials and tools of the professional graphic designer and illustrator.
- 444. Visual Communication Media (3)**
Six hours.
Prerequisite: Art 341.
Experimental, creative and practical exploration of contemporary communication as related to sequential visual imagery.
- 445. Internship in Graphic Design (3) Cr/NC I, II**
Prerequisites: Art 441 and consent of instructor.
Field experience in design, business procedures, management, client relationships, and supervision of subcontractual work with local practicing professionals. Maximum credit six units.
- 450. Synergetic Environments (3) I**
Six hours.
Prerequisites: Art 249 and 454.
Synthesis of materials, space, sound and light using exploratory methods in full scale projects.
- 451. Interior Design II (3) I, II**
Six hours.
Prerequisites: Art 249, 250, 251, and completion of portfolio requirement. **Proof of completion of prerequisites required:** Copy of transcript.

Survey, analysis and conceptual design methods of residential interiors stressing materials, equipment, components and structural detailing. Maximum credit six units.

- 452. Interior Design Practicum (3) Cr/NC I, II**
Nine hours of laboratory.
Prerequisite: Art 453. **Proof of completion of prerequisite required:** Copy of transcript.
Field experience with local professional interior designers in client relationships, business procedures, supervision of subcontracted work and installation, and execution of contracts. Maximum credit six units.

- 453. Interior Design III (3) I, II**
One lecture, two hours of activity, and three hours of laboratory.
Prerequisites: Art 249, 250, 251, and completion of portfolio requirement. **Proof of completion of prerequisites required:** Copy of transcript.

Materials and techniques of nonresidential space planning: Estimating, specification writing, contractual agreements, record keeping, budgets, and project supervision. Required field trips to professional offices, studios and showrooms. (Formerly numbered Art 552.)

- 454. Environmental Design (3) I, II**
Six hours.
Prerequisites: Art 247 and 250.
Survey, analysis and design synthesis of problems of more complexity, through interiors, to landscape, to architectural planning and, finally, concern for city design.

- 481. History and Theory of Environmental Design (3) I**
Prerequisites: Art 258 and 259.
Environmental arts. From the fifteenth to the nineteenth century.

- 496. Experimental Topics (1-4)**
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

- 497. Senior Investigation and Report (3) I, II**
Nine hours for 497A; three hours for 497B.
Prerequisites: Six upper division units in art, and consent of instructor.
Individual research into areas of studio and art history not covered by regular courses.

- A. Studio Investigations**
B. Art History Investigations

- 498. Senior Project (3) I, II**
Nine hours for 498A; three hours for 498B.
Prerequisite: Consent of instructor.
Investigation in art. Formal presentation of project.
A. Studio project
B. Art History project

- 499. Special Study (1-3) I, II**
Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

- 500. Advanced Drawing (3)**
Six hours.
Prerequisites: Art 203 and 204.
Drawing emphasizing the qualitative aspect of visual subject matter. Maximum credit six units.

- 502. Inter-Media (1-3) I, II**
Two hours for each unit of credit.
Prerequisites: Art 102 and 103.
Process and materials in plane and space. Maximum credit six units.

- 503. Life Drawing and Painting (3) I, II**
Six hours.
Prerequisites: Art 204 and 403.
Drawing and painting from nude and costumed models. Maximum credit six units.

- 504. Advanced Painting (3) I, II**
Six hours.
Prerequisite: Six units of Art 404.
Approaches to contemporary concepts in painting. Maximum credit six units.

- 506. Contemporary Issues for Studio Artists (3) I**
Prerequisites: Upper division or graduate standing in art and consent of instructor.

Theory, practice, and philosophy of being an artist. Independent research on current art concepts and issues. Material will encompass the past five years. Field trips.

- 509. Relief Printmaking (3) I, II**
Six hours.
Prerequisites: Art 203 and 210.
Woodcut, wood engraving, gessocut, linoleum, collograph, and relief printmaking processes. Emphasis on fine print quality and technical development using mixed media. Maximum credit six units.

- 510. Intaglio Printmaking in Color (3) I, II**
Six hours.
Prerequisite: Art 410.
Advanced creative intaglio printmaking in color, including zinc and copper plate; etching, drypoint, aquatint, engraving, embossing and color variations. Emphasis on fine print quality and technical development in the color process unique to this medium. Maximum credit six units.

- 511. Lithography Printmaking in Color (3) I, II**
Six hours.
Prerequisite: Art 411.
Advanced creative lithography printmaking in color. Emphasis on fine print quality in color process and color technology unique to this medium. Maximum credit six units.

- 516. Advanced Sculpture (3) I, II**
Six hours.
Prerequisite: Art 416.
Individual investigations into sculpture ideas, methods and materials. Individual development in sculpture. Materials may include clay, plastics, paper or wood. Maximum credit six units. (Formerly numbered Art 516A, 516D.)

- 517. Advanced Figurative Sculpture (3) I, II**
Six hours.
Prerequisites: Art 216 and 217.
Figurative study with emphasis on individual exploration. Maximum credit six units.

- 518. Advanced Metal Sculpture (3)**
Six hours.
Prerequisite: Art 418.
Sculpture ideas and methods using metal fabrication and foundry processes. Individual development in sculpture. Maximum credit six units. (Formerly numbered Art 516C.)

- 523. Advanced Furniture Design (3) I, II**
Six hours.
Prerequisite: Art 423.
Advanced individual design; exploration of materials, process and function. Maximum credit six units. Maximum combined credit of 12 units in Art 323, 423, and 523.

- 525. Advanced Ceramics (3) I, II**
Six hours.
Prerequisite: Art 425.
Study of ceramic design through creative projects of clay forms. Maximum credit six units.

- 526. Clay and Glaze Technology in Ceramic Design (3)**
Six hours.
Prerequisite: Art 425.
Experimentation and application of research concerning the use of ceramic materials and techniques as an integral part of the design process. Maximum credit six units.

- 531. Advanced Jewelry and Metalwork (3) I, II**
Six hours.
Prerequisite: Art 431.
Problems involving fabrication processes already studied in order to increase technical competence while exploring personal design statements; specialized techniques such as photoetching and electroforming. Maximum credit six units.

- 532. Advanced Metalsmithing (3) I, II**
Six hours.
Prerequisite: Art 432.
Advanced problems involving metal processes to increase technical competence while exploring personal design statements. Maximum credit six units.

- 533. Textile Techniques in Metal (3)**
Six hours.
Prerequisite: Art 331 or 435.
Textile structures as applied to precious and nonprecious metals. Individually designed projects utilizing information acquired through samples and documentation. For students of fiber, metal and sculpture.

- 534. Advanced Weaving (3) I, II**
Six hours.
Prerequisite: Art 334.
Advanced individual problems in weaving. Maximum credit six units. Maximum combined credit of nine units in Art 234, 334, and 534.

- 535. Advanced Nonwoven Textile Construction (3) I, II**
Six hours.
Prerequisite: Art 435.
Advanced study in nonloom techniques. Techniques to include: looping, braiding, plating, and special fabricating techniques. Experimentation with new man-made fibers and with synthetic commercial dyes. Maximum credit six units.

- 536. Advanced Textile Design (3) I, II**
Six hours.
Prerequisite: Art 436.
Application of design for the textile surface, appropriate for both the individual designer and commercial reproduction. Maximum credit six units.

- 540. Advanced Graphic Imagery (3) I, II, S**
Six hours.
Prerequisite: Art 240 or 340.
Investigation of experimental photographic and technical reproductive media.

- 541. Advanced Graphic Design – Communication Systems (3) I, II**
Six hours.
Prerequisite: Art 441. **Proof of completion of prerequisite required:** Copy of transcript.
Symbolic processes, materials and structures, visual communications systems relating to corporate and visual identification programs. Maximum credit six units.

- 542. Advanced Professional Problems in Graphic Design (3) I, II**
Six hours.
Prerequisite: Art 441 or 541; or consent of instructor by portfolio review.
Refinement of personal visual imagery and the application of design concepts to production situations. Study of professional responsibilities, conduct and business procedures. Development of a professional level portfolio.

543. Advanced Drawing and Illustration for Graphic Design (3) II

Six hours.

Prerequisite: Art 443.

Refinement of visual imagery and advanced illustration problems.

544. Advanced Visual Communication Media (3)

Six hours.

Prerequisite: Art 444.

Experimental, creative and practical exploration of contemporary communication as related to advanced sequential visual imagery in multimedia formats.

547. Environmental Theory (3) I, II

Prerequisite: Art 247 or 347.

Survey of alternative solutions to the problem of design of the physical environment.

550. Environmental Prototypes (3) I

Six hours.

Prerequisites: Art 247, 250, 450.

Research and development of creative architectural concepts with emphasis in space enclosure systems and cybernetics.

552. Interior Design IV (3) I, II

Six hours.

Prerequisites: Art 451, 453, and completion of portfolio requirement. **Proof of completion of prerequisites required:** Copy of transcript.

Projects in architectural interiors involving the use and perception of enclosed spaces. Space planning systems analysis. Maximum credit six units.

553. Interior Design V (3) I, II

Six hours.

Prerequisite: Art 552. **Proof of completion of prerequisite required:** Copy of transcript.

Projects in interiors involving space planning analysis, specification writing, materials selection and furnishing design appropriate to commercial needs. Maximum credit six units.

557. Art of the Nineteenth Century (3) I, II

Prerequisites: Art 258 and 259.

Development of painting, sculpture, and architecture from the French Revolution to 1900.

558. Twentieth Century European Art to 1945 (3) I, II

Prerequisite: Art 259.

Major developments in the visual arts and art criticism from 1880 to 1945 (Post-Impressionism through Surrealism).

559. Twentieth Century European and American Art Since 1945 (3) I, II

Prerequisites: Art 258 and 259. Recommended: Art 558.

Major developments in the visual arts and art criticism since 1945.

560. History of American Art (3)

Prerequisites: Art 258 and 259.

Development of painting, sculpture, and architecture from the Native American art and Colonial Period to the present.

561. Art of Pre-Hispanic America (3)

Prerequisite: Upper division standing.

Art of ancient Meso-America, Central America, Caribbean, and South America from earliest times until contact with Europe.

562. Art of Latin America (3)

Prerequisite: Upper division standing.

Art and architecture of Latin America from the colonial period to the present. Field trips included.

568. Art of Crete, Mycenae, Greece, and Rome (3)

Prerequisite: Art 258.

Development of painting, sculpture, architecture, and crafts from prehistoric times to the fifth century A.D.

573A. Early Renaissance Art in Italy (3)

Prerequisites: Art 258 and 259.

Italian arts, architecture, artists, and patrons from fourteenth century Proto-Renaissance period through fifteenth century revival of classical humanism in city states of Florence, Siena, Bologna, Mantua, and Padua.

573B. Late Renaissance Art in Italy (3)

Prerequisites: Art 258 and 259.

High Renaissance in Florence and Rome, followed by disintegration of classical principles and domination of Mannerism in Central and Northern Italy and history of arts of Venice in sixteenth century.

574. Northern Renaissance Art (3)

Prerequisites: Art 258 and 259.

Architecture, sculpture, and painting north of the Alps during the Renaissance period.

575. Baroque and Rococo Art (3)

Prerequisites: Art 258 and 259.

Architecture, sculpture, and painting of the Baroque and Rococo periods.

576. Arts of Native North America (3)

Prerequisite: Upper division standing.

Form and content of the arts of North American Indians viewed within a cultural context. Field trips.

577. History of Architecture (3)

Prerequisites: Art 258 and 259.

Architecture from primitive times to the present.

581. History and Theory of Environmental Design (3) II

Prerequisites: Art 258 and 259.

Environmental arts in the nineteenth and twentieth centuries.

591. Gallery Exhibition Design (3) I, II

Six hours.

Prerequisite: Fifteen units of art.

Fundamental art elements and principles applied to the theories and techniques of gallery exhibition design.

592. Gallery Exhibition Design (3) I, II

Six hours.

Prerequisite: Art 591.

Advanced problems in the theories and techniques of gallery exhibition design.

593. History and Methodology of Art History (3) II

Prerequisites: Upper division standing; art history major or minor.

Readings and discussions on the historiography of art and on modern methodologies for art historical research.

596. Advanced Studies in Art and Art History (1-4)

Prerequisites: Twelve units of art and art history and consent of instructor.

Advanced topics in art and art history. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum credit of three units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to the Graduate Bulletin.

OFFICE: Adams Humanities 4207**TELEPHONE: (619) 594-5262****Faculty**

Asian studies is administered through the Center for Asian Studies. Faculty assigned to teach courses in Asian Studies are drawn from the Departments of Anthropology, Art, Classics and Humanities, Economics, English and Comparative Literature, Geography, History, Linguistics and Oriental Languages, Philosophy, Political Science, Religious Studies, and Sociology; the Colleges of Business Administration, Education, Engineering, and Sciences; and the Library.

Director and Undergraduate Adviser: Madhavan (Economics)**Graduate Adviser:** R. Smith (History)**Faculty:** Bergstrom (Political Science), Chan (Library), Chen (Information and Decision Systems), Cheng (Communicative Disorders), Chin (English and Comparative Literature), Chu (History), Coox (History), Cox (History), Donahue (Linguistics), DuFault (History), Heinrichs (History), The Dwight E. Stanford Chair in American Foreign Relations), Henry (Anthropology), Hermansen (Religious Studies), Higurashi (Japanese), Himes (Anthropology), Ima (Sociology), Johnson (Religious Studies), Madhavan (Economics), Nam (Economics), Oades (History), Peterman (Music), Rogers (Library), Rogers (English and Comparative Literature), Shaw (Teacher Education), Smith, R. (History), Strand (Dean, College of Arts and Letters), Wawrytko (History), Whitney (Anthropology), Wittenborn (History), Woo (Chinese), Yu (Public Health)**Adjunct:** Somanathan (Chemistry)**Offered by Asian Studies**

Master of Arts degree in Asian studies.

Major in Asian studies with the B.A. degree in liberal arts and sciences.

Minor in Asian studies.

The Major

Two and one-half billion people live in East, Southeast, and South Asia—half of the world's population. The importance of this immense and varied region cannot be overstated. More and more Americans are discovering the rich culture and history of the Asian people. Asians have made a major contribution to the world's literature and art, religion and philosophy, and are becoming increasingly important in international relations, business, and economics.

Nonmajors who wish to increase their knowledge about Asian peoples will find courses available in the Asian studies undergraduate and graduate programs.

The Asian studies program seeks to provide a background for students planning to enter business, the academic environment, government, or community service—wherever the knowledge of Asia and Asians is needed. Students in the major develop an understanding of cultural heritage, societies, language and special forces. Areas of special interest may be pursued in depth.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Asian Studies

In the College of Arts and Letters

Asian Studies Major**With the B.A. Degree in Liberal Arts and Sciences****(Major Code: 03011)**

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Each student must file an individual master plan with the Asian Studies undergraduate adviser and with the Office of Admissions and Records.

A minor is not required with this major.

Preparation for the Major. Six units selected from Asian Studies 106, 107; History 120, 121; Philosophy 101, 102; or Religious Studies 101; and six units selected from Anthropology 101, 102; Economics 101, 102; Geography 101, 102; or Political Science 101, 103. (12 units)

Art 258 and 259 (unless waived by the instructor) are needed if Art 366 is selected in the major. Art 263 is recommended.

Foreign Language Requirement. Competency (equivalent to that normally attained through two consecutive years of college study) in one major Asian language, such as Chinese or Japanese, unless specifically waived by the undergraduate adviser.**Upper Division Writing Requirement.** Passing the University Writing Examination or completing Anthropology 396W, English 508W, Linguistics 396W, Religious Studies 396W, Rhetoric and Writing 305W, 500W, 503W, or Sociology 396W with a grade of C (2.0) or better.**Major.** A minimum of 30 upper division units to include six units selected from Asian Studies 458, 459, 499 (maximum three units), 560, and 596. No fewer than 12 units must be chosen from at least two humanities departments, and no fewer than 12 units must be chosen from at least two social science departments. A student may choose courses focusing on East Asia, South Asia, or Southeast Asia.

Appropriate humanities courses are Art 308; Comparative Literature 455, 460, 470*, 490*, 571*, 577*, 580*; History 496*, 561A, 561B, 562, 563, 564A, 564B, 565, 566, 567, 568, 569, 570, 596*; Linguistics 496*; Music 351F, 561*; Philosophy 351, 575*, 596*; Religious Studies 401, 403, 499*, 506, 580*, 581*, 583*.

Appropriate social science courses are Anthropology 448, 450, 452, 481*, 496*, 582*, 583*; Economics 330, 336*, 360, 365*, 465, 489, 496*, 499*; Political Science 361, 362, 499; Women's Studies 580*.

* When deemed relevant by the undergraduate adviser.

Asian Studies Minor

The minor in Asian studies consists of a minimum of 21 units to include Asian Studies 106 and 107. Other lower division courses acceptable for the minor are Art 263 and four units of an appropriate Asian language, e.g., Chinese or Japanese. Twelve units must be in upper division and divided equally between humanities and social science courses.

Appropriate humanities courses are Asian Studies 458, 499, 596; History 561A, 561B, 562, 563, 564A, 564B, 565, 566, 567, 568, 569, 570; Philosophy 351, 575 (when relevant)*, 596 (when relevant)*; Religious Studies 401, 403, 506.

Appropriate social science courses are Asian Studies 459, 499, 560, 596; Anthropology 450, 452; Economics 330, 465; Marketing 376*; Political Science 362, 499 (when relevant)*.

* Additional upper division prerequisites are required for these courses.

To achieve a desired geographical spread of courses in the minor, no more than six units may be selected from History 566, 567, 568, and Philosophy 351; no more than six units may be selected from History 569, 570, and Anthropology 452; and no more than six units from Anthropology 450, History 562, 563, and Religious Studies 401, 506.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of twelve upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

106. Cultural Heritage of Asia (3) II

Social and cultural heritages of South, Southeast, and East Asian societies as revealed in art, drama, classical literatures, and folk traditions.

107. Social Foundations of Modern Asia (3) I, II

Social, economic, and political systems of South, Southeast, and East Asia in modern times.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

458. Asian Traditions (3) I, II

Prerequisites: Six units of Asian-content courses or upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Social, cultural, economic, and political traditions of South, Southeast, and East Asia; how they functioned in theory and practice prior to twentieth century.

459. Contemporary Asian Cultures (3) I, II

Prerequisite: Six units of Asian-content courses or upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Continuity and change in traditions and values of Asian societies in face of urbanization, modernization, and Westernization since mid-nineteenth century.

496. Experimental Topics (1-4)

Prerequisite: Six units of Asian-content courses.

Selected topics in Asian studies. May be repeated with new content. Maximum credit six units with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3)

Prerequisites: At least six units of upper division work completed toward the major or minor in Asian studies and consent of the instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

560. History of Japanese Business and Trade (3) I, II

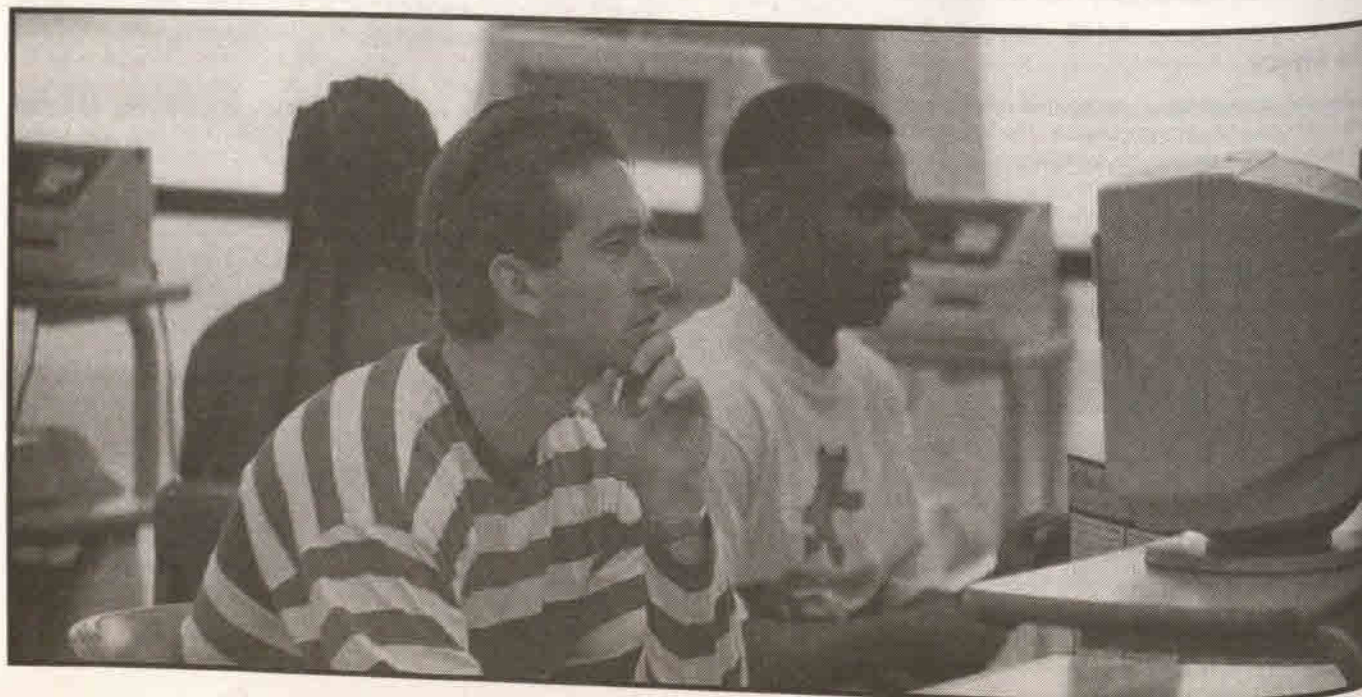
Prerequisites: Upper division standing and consent of instructor.

Japanese business and trade from 1600 to present. Emphasis on Japan's rapid economic development since 1868, interplay of social and economic forces, structure of Japanese business system, and problems of international trade.

596. Selected Studies in Asian Cultures (3)

Topics on various aspects of Asian studies. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES Refer to the Graduate Bulletin.



Astronomy

In the College of Sciences

OFFICE: Physics/Astronomy 210

TELEPHONE: (619) 594-6182

Faculty

Emeritus: Nelson

Chair: Angione

Professors: Angione (Director of Mt. Laguna Observatory), Daub, Etzel, Young, A.

Associate Professors: May, Shafter, Talbert

Adjunct: Cheng, Hintzen, Hood, Kovach, Olson, Young, A.T.

Offered by the Department

Master of Science degree in astronomy.

Major in astronomy with the B.A. degree in liberal arts and sciences.

Major in astronomy with the B.S. degree in applied arts and sciences.

Minor in astronomy.

The Major

Will the universe expand forever? Is there life on other planets? How are stars formed? These are the types of questions being addressed by students majoring in astronomy. Some areas of study in astronomy include the sun, the solar system, the stars, the Milky Way, the galaxies, and cosmology.

SDSU is the only institution in The California State University system which offers a complete academic program in astronomy. Students actively participate in all phases of observational astronomical research.

Joint faculty and student research activities are principally in the area of observational astrophysics. These include ongoing investigations of cosmology, eclipsing binary stars, low mass stars, planetary nebulae, galactic clusters, exterior galaxies, and atmospheric physics.

Much of this work is done at the Mount Laguna Observatory operated by the University. The department also has excellent computer facilities.

Graduates with a bachelor's degree may find some positions in observatories and large astronomy departments. These jobs support continuing research and include telescope operators, instrument makers, opticians, electronic technicians, programmers, photographers, and laboratory technicians.

Employment opportunities for astronomers who have advanced degrees include positions in colleges and universities, in national observatories and government laboratories, in planetariums, and in industry and private companies.

Astronomy Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 9111)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in astronomy courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Astronomy 205; Mathematics 150, 151, and 252; Physics 195, 195L, 196, 196L, 197, 197L. (28 units)

Recommended: Chemistry 200, Engineering 120 or Computer Science 106.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive semesters of college study) is required in one foreign language as part of the preparation for the major. Refer to the section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in astronomy and physics to include Astronomy 340, 350, 440, 450; Mathematics 342A; Physics 350, 354A; and six units selected with the approval of the astronomy undergraduate adviser. Recommended: Astronomy 320; Physics 354B, 400A, 406, 460.

Astronomy Major

With the B.S. Degree in Applied Arts and Sciences

(Major Code: 19111)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

Preparation for the Major. Astronomy 205; Physics 195, 195L, 196, 196L, 197, 197L. (15 units)

Recommended: Chemistry 200, Engineering 120 or Computer Science 106.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units in astronomy and physics to include Astronomy 340, 350, 440, 450, 498A, 498B; Physics 350, 354A, 400A, 460; and nine units selected from Astronomy 320; Physics 311, 354B, 400B, 406, 510.

Minor in Mathematics. All candidates for the B.S. degree in astronomy must complete a minor in mathematics, to include Mathematics 150, 151, 252, 342A; and six additional upper division units of electives in mathematics. Recommended: Mathematics 342B, 342C, 541, 551A.

Astronomy Minor

The minor in astronomy consists of a minimum of 15 units to include Astronomy 101 or 205 and 12 upper division units selected from Astronomy 301, 320*, 340*, 350*, 440*, 450*.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

* Additional prerequisites required.

Courses

LOWER DIVISION COURSES

101. Principles of Astronomy (3) I, II

Nature of the universe: the solar system, stars, galaxies, and remote universe.

109. Astronomy Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Astronomy 101. Demonstration of astronomical principles through observations with astronomical instruments and analysis of astronomical data.

205. Modern Astronomical History (3)

Prerequisite: Physics 195.

Discoveries, advancements, and individuals of the last century that have had a major influence on current astronomical conceptions and practices.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

301. Cosmology and Gravitational Collapse (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.1. Physical Sciences.

Einstein's theory of general relativity applied to problems of gravitational collapse (stellar evolution, neutron stars, black holes) and cosmology (origin and evolution of the universe).

320. Solar System Astronomy (3)

Prerequisites: Astronomy 101 and Physics 197, 197L.

Structures of the planets, their atmospheres and satellite systems, asteroids, comets, and meteoroids, and the interplanetary medium, including the sun's influence in the system.

340. Spherical Astronomy (3) I

Prerequisites: Credit or concurrent registration in Mathematics 252 and Physics 197.

Problems in spherical astronomy, astronomical coordinate systems, time, general precession, and introduction to astrometry.

350. Astronomical Techniques (3) II

Prerequisite: Astronomy 340.

Data acquisition and data reduction for current instrumentation including photoelectric photometry, direct imaging, and spectroscopy. Techniques for obtaining precise measurements.

440. Astrophysics of Stars (3) I

Prerequisites: Credit or concurrent registration in Mathematics 342A and Physics 354A.

Radiative transfer theory, atmospheres of stars and the emergent spectrum, interior structure and evolution of stars, stellar pulsations.

450. Astrophysics of Star Systems (3) II

Prerequisites: Credit or concurrent registration in Mathematics 342A and Physics 354A.

Applications of physics in study of binary stars, star clusters, the interstellar medium and galactic structure, galaxies, and cosmology.

498A. Senior Project (1) I, II

Prerequisite: An acceptable master plan for graduation within one year.

Selection and design of individual projects.

498B. Senior Project (2) I, II

Six hours of laboratory.

Prerequisite: Astronomy 498A.

Individual research project culminating in a final written report.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

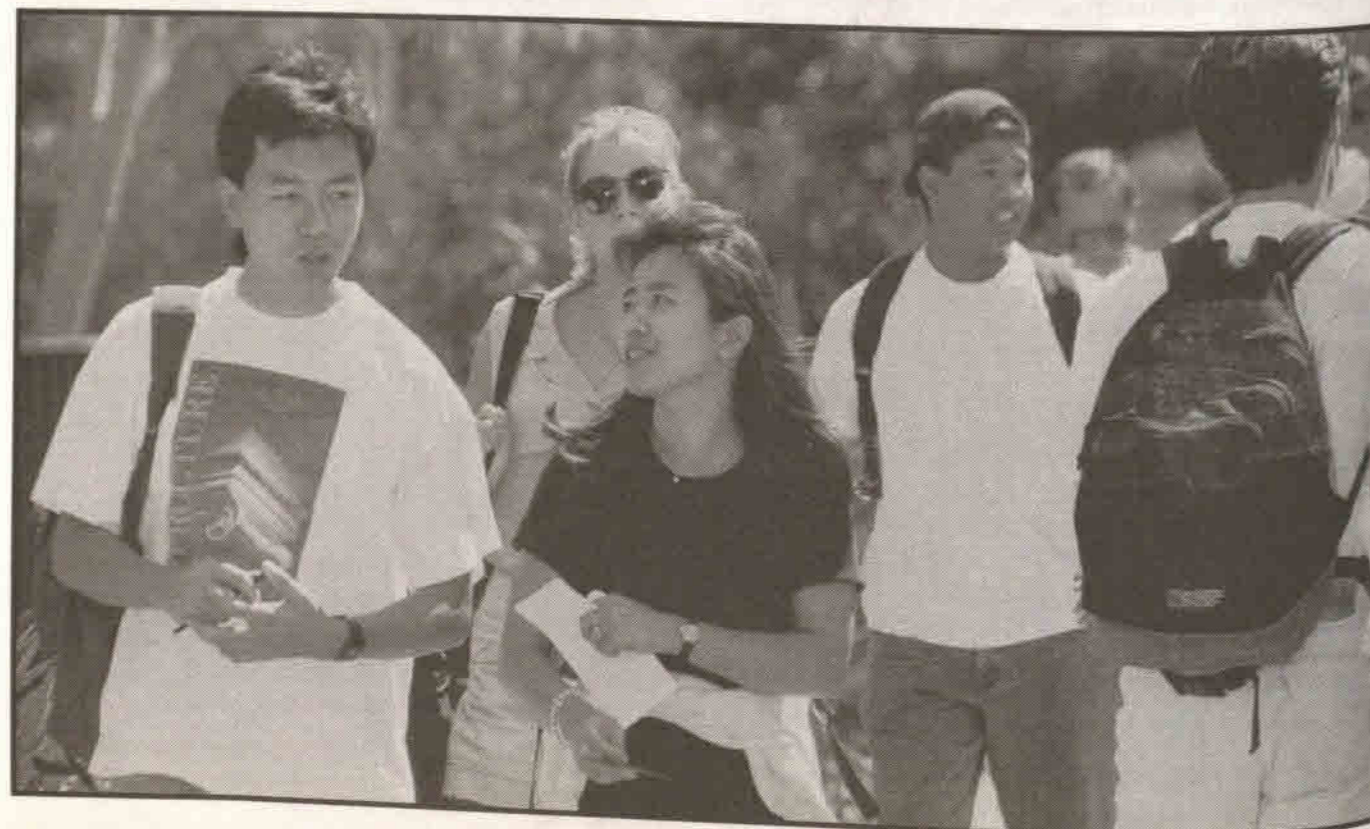
UPPER DIVISION COURSE
(Also Acceptable for Advanced Degrees)

596. Advanced Topics in Astronomy (2 or 3) I, II

Prerequisite: Consent of instructor.

Selected topics in theoretical astronomy or astrophysics. May be repeated with new content upon approval of instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.



Biology

In the College of Sciences

OFFICE: Life Sciences 104

TELEPHONE: (619) 594-6767

Faculty

Emeritus: Alexander, Atkins, Baxter, Bohnsack, Brandt, Carpenter, Clark, Cohn, Collier, G., Crouch, Davis, Etheridge, Farris, Hazen, Huffman, Johnson, A., Kelly, Kummerow, McBlair, McLean, Moore, Neel, Norland, Olson, Parsons, Phelps, Plymale, Ratty, Rinehart, Schapiro, Shepard, Sloan, Taylor, Van Steenberg, Walch, Wedberg, Wilson

Chair: Barnett

Professors: Alfred, Allen, Archibald, Awbrey, Barnett, Bernstein, Berta, Bizzoco, Breindl, Chen, Collier, B., Cox, Davis, Dexter, Dowler, Ebert, Fisher, Ford, Frey, Glembotski, Hemmingsen, Hunsaker, Hurlbert, Johnson, G., Johnson, K., Krekorian, Krisans, McClenaghan, Monroe, Oechel, Paolini, Perrault, Phleger, Pozos, Rayle, Sabbadini, Simpson, Tsoukas, Zedler, J., Zedler, P., Zyskind

Associate Professors: Avila, Beuchat, Daugherty, Diehl, Futch, Hanscom, Thwaites, Williams, K., Williams, S.

Assistant Professors: Carmichael, Harris, Helenurm, Mabee, McGuire, Segall

Lecturer: Lewis

Offered by the Department

Doctor of Philosophy degree in biology and ecology.

Master of Arts degree in biology.

Master of Science degree in biology.

Master of Science degree in microbiology.

Major in biology with the B.A. degree in liberal arts and sciences.

Major in biology with the B.S. degree in applied arts and sciences.

Emphasis in cellular and molecular biology.

Emphasis in ecology.

Emphasis in evolution and systematics.

Emphasis in marine biology.

Emphasis in zoology.

Major in environmental health with the B.S. degree in applied arts and sciences.

Major in microbiology with the B.A. degree in liberal arts and sciences.

Major in microbiology with the B.S. degree in applied arts and sciences.

Emphasis in medical technology and public health microbiology.

Program for the single subject teaching credential in science.

Minor in biology.

Certificate in Recombinant DNA Technology.

The Majors

Biology. The Department of Biology offers a dynamic and modern program in biology which prepares students both academically and practically for vocations in science and science-related fields or for entry into graduate studies. The major is designed to present a basic background in modern biology and in the supportive disciplines of chemistry, mathematics and physics, and to provide specialized training selected by the student from a variety of areas. The wide range of faculty expertise and research interest allows the department to offer a curriculum which includes general and advanced courses in plant and animal sciences, marine sciences, genetics and physiology, ecology, molecular biology, microbiology, immunology, endocrinology, entomology, evolution, and systematics. Formal programs of study

within the major include Emphases in Cell and Molecular Biology, Ecology, Evolution and Systematics, Marine Biology, and Zoology. Special studies opportunities with SDSU faculty and scientists at cooperating institutions allow qualified students to gain research experience on an individual basis.

The department offers a specific program of courses to fulfill the state of California's science requirements for the Single Subject Teaching Credential in Science (beginning January 1995) and the current Life Science Teaching Credential. Students successfully completing one of these programs may be certified by the department as having demonstrated subject competency as required in part for acceptance into College of Education single subject credential program.

The department also offers a program leading to the Recombinant DNA Technology Certificate. The purpose of this program is to prepare undergraduate and graduate students for employment in public and private organizations utilizing recombinant DNA technology.

The rapid advances in theoretical and applied biology, the growing demands in health care and the expansion of general interest in and concern for the environment are just a few of the factors which continue to increase society's need for biologists. Some examples: a biology degree is the common precursor for the medical, dental, veterinarian and allied health professions; government agencies involved in environment protection, public health and conservation need ecologists, inspectors, laboratory technicians and wildlife, forest, coast and park managers; government and private agriculture agencies need entomologists and botanists; private companies, government laboratories and universities involved in biotechnology need microbiologists and molecular biologists; zoos, wild animal parks and aquaria need zoologists; the secondary school system needs biology teachers; textbook and scientific supply companies need science majors. Whether your goal is to work in a laboratory or a forest, there is opportunity for fulfillment and growth in the field of biology.

Environmental Health. (No new students are being admitted to this program.) Those who are interested in such problems as solid waste disposal, air pollution, hazardous materials and similar environmental concerns, may want to choose a major in environmental health.

The major includes preparatory coursework in biology, chemistry, mathematics, and physics. Upper division students are exposed to a variety of areas concerned with environmental health such as epidemiology, which studies the transmission, distribution and control of diseases; microbiology, which studies agents of disease; and a course which examines the treatment of water and wastewater.

Employment opportunities for graduates are keeping pace with the growth of public and legislative interest in environmental health and are plentiful in both the public and private sectors. Graduates may find positions in housing and land development, housing inspection, vector control, safety inspection, environmental impact, industrial hygiene, and occupational health.

The Environmental Health program is approved by the California Department of Health Services to satisfy the academic requirements for registration as a specialist. An environmental health graduate may immediately take the State of California examination to become an Environmental Health Specialist. Environmental Health Specialists, also known as public health inspectors, are involved in restaurant inspection, communicable disease investigation, and water and wastewater disposal and management. These individuals, who normally belong to state and national environmental health associations, may also be involved in the areas of food safety, radiation, vector control, and environmental impact.

Microbiology. Microbiology is the study of bacteria, viruses, yeasts, molds, algae and protozoa. These microorganisms are found

associated with plants and animals, in soil, and in fresh and marine waters. Many of the free-living species participate in maintaining the quality of our environment. Certain species affect the health and well-being of plants and animals, including humans, by causing infectious diseases. Microorganisms are often used in the molecular biology laboratory as research tools, for experiments in genetic engineering, and in the manufacture of food and chemicals.

The microbiology major is designed to provide the student with a background in basic biology, microbiology, and the disciplines of chemistry, mathematics and physics. The curriculum includes introductory and advanced courses (most with laboratories) in general and pathogenic microbiology, immunology, virology, physiology, and genetics as well as courses in food and industrial microbiology, marine microbiology, and molecular biology.

Microbiologists find positions with governmental agencies, in university and private research laboratories, in biotechnology, medical and industrial laboratories, in schools as teachers, with scientific supply companies, or with textbook companies. Depending on the situation, a microbiologist may conduct fundamental and applied research, identify disease-causing microorganisms in medical or veterinary specimens, participate in studies of the environment (e.g., soil, ocean, lakes), aid in the manufacture of pharmaceuticals, food, or beverages, or provide quality and safety control. The microbiology major is excellent preparation for entrance into medical, dental, veterinarian, and graduate schools. The Emphasis in Medical Technology and Public Health Microbiology prepares students to become, after a postgraduate internship, licensed medical technologists or certified public health microbiologists.

Biology Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 04011)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." A total of 45 upper division units must be taken, of which 24 must be selected from the General Biology Degree Requirements and the list of courses acceptable for electives. No more than 48 units in biology courses can apply to the degree.

A minor is not required with this major.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Biology Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 04011)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." A total of 36 upper division units must be selected from the General Biology Degree Requirements and the list of courses acceptable for electives.

A minor is not required with this major.

General Biology Degree Requirements

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, and 231; Mathematics 121 and 122, or 150; Physics 180A or 195, 180B or 196 and 197, 182A or 195L, 182B or 196L and 197L. (38-43 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units for the B.A. degree or 36 upper division units for the B.S. degree to include Biology 352, 354, 356 and Chemistry 361A or 560A. Elective courses include all upper division biology courses numbered 350 and above and all upper division chemistry courses. At least two of the electives must be biology laboratory courses (not including Biology 499 or chemistry laboratories) and at least one of these laboratory courses must be an organismal level course selected from Biology 350, 462 and 462L, 470, 514, 515, 520, 524, 525, 528, and 533.

No transfer course will substitute for Biology 352, 354, 356 or as an organismal course without the specific approval of the department.

All courses not included above must have the prior approval of the Department and the substitution filed with the Office of Admissions and Records.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department and be filed with the Office of Admissions and Records.

Emphasis in Cellular and Molecular Biology

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, 231, and 251; Mathematics 121 and 122, or 150; Physics 180A or 195, 180B or 196 and 197, 182A or 195L, and 182B or 196L and 197L. (43-48 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 350, 352, 354, 356, 550 and Chemistry 361A or 560A, 361B or 560B, and 567. Remaining elective courses must be selected from Biology 499, 521, 521L, 549, 551, 551L, 554, 563, 566, 567, 569, 570, 584, 585, 590, 591, 592, 595, 596 (as appropriate), and Chemistry 431.

Other than Biology 352, 354, 356 and Chemistry 361A, only one course in this emphasis may be used for credit in another emphasis offered by the department.

No transfer course will substitute for Biology 350, 352, 354, 356 or 550 without the specific approval of the Emphasis in Cell and Molecular Biology adviser.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department adviser and be filed with the Office of Admissions and Records.

Emphasis in Ecology

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, and 231; Mathematics 121 and 122, or 150; Physics 180A or 195, 180B or 196 and 197, 182A or 195L, and 182B or 196L and 197L. (38-43 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 352, 354, 354L, 356 and Chemistry 361A or 560A. At least 15 elective units must be selected from Biology 358, 359, 454, 496, 506, 512, 516, 517, 519, 527, 535, 539, 540, 543, 560, 563, 596, 597A, and 597B. Remaining elective courses include Biology 350-362, 454-499, and all 500-level biology and upper division chemistry courses. The above 36 upper division units must include an organismal course and two biology upper division laboratory courses.

Other than Biology 352, 354, 356 and Chemistry 361A, only one course in this emphasis may be used for credit in another emphasis offered by the department.

No transfer course will substitute for Biology 352, 354, 354L or 356 without the specific approval of the Emphasis in Ecology adviser.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department adviser and be filed with the Office of Admissions and Records.

Emphasis in Evolution and Systematics

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, and 231; Mathematics 121 and 122, or 150; Physics 180A or 195, 180B or 195L, 182A or 196 and 197, and 182B or 196L and 197L. (38-43 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 352, 354, 356, 510, and Chemistry 361A or 560A. At least 12 elective units must be selected from Biology 358, 462, 462L, 470, 471, 506, 512, 520, 523, 524, 525, 530, and 596 courses approved by the Emphasis in Evolution and Systematics adviser. Remaining elective courses include Biology 350-362, 454-499, all 500-level biology courses and all upper division chemistry courses. At least one elective must be an organismal level course described for the major and at least two electives must be biology laboratory courses.

Other than Biology 352, 354, and 356, and Chemistry 361A, only one course used in this emphasis may be used for credit in another emphasis offered by the department.

No transfer course will substitute for Biology 352, 354, 356 or 510 without the specific approval of the Emphasis in Evolution and Systematics adviser.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department adviser and be filed with the Office of Admissions and Records.

Emphasis in Marine Biology

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, and 230 or 231; Mathematics 121 and 122, or 150; Physics 180A or 195, 180B or 196 and 197, 182A or 195L, and 182B or 196L and 197L. (38-43 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 352, 354, 356, Chemistry 361A or 560A, and an organismal level course selected from Biology 514 or 515 or 520 (15 units). At least 11 upper division units must be selected from Biology 512, 513, 513L, 514, 515, 516, 517, 518, 519, and 520. The remaining minimum ten upper division units include all biology courses numbered 350 and above (except Biology 452), all upper division chemistry courses and a maximum of three units from Economics 454, Geography 504 and 576, Geological Sciences 540, 545 and 548, Oceanography 541 or 561. At least three courses taken in the major must be biology laboratory courses (not including Biology 499).

Other than Biology 352, 354, 356, and Chemistry 361A, only one course in this emphasis may be used for credit in another emphasis offered by the department.

No transfer course will substitute for Biology 352, 354 or 356 without the specific approval of the Emphasis in Marine Biology adviser.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department adviser and be filed with the Office of Admissions and Records.

Emphasis in Zoology

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, and 231; Mathematics 121 and 122, or 150; Physics 180A or 195, 180B or 196 and 197, 182A or 195L, and 182B or 196L and 197L. (38-43 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 352, 354, 356, Chemistry 361A or 560A and at least 15 units selected

from Biology 462, 462L 470, 506, 512, 515, 516, 520, 523, 524, 525, 527, 540, 560, 577, 586, 588, and 596 courses approved by the Emphasis in Zoology adviser. Of these 15 units, a minimum of three units must be selected from Biology 462, 462L, 506, 586, 515, 516, or 586; a minimum of three units from Biology 470, 512, 520, 523, 524, or 525, and a minimum of three units from Biology 527, 540, 560, 577, 588 and 596 as approved by the Emphasis in Zoology adviser. The remaining elective courses include Biology 350-362, 454, 499, all 500-level biology courses, and all upper division chemistry courses. The above 36 upper division units must include an organismal course and two upper division biology laboratory courses as described in the major.

No transfer course will substitute for Biology 352, 354 or 356 without the specific approval of the Emphasis in Zoology adviser.

Other than Biology 352, 354, 356 and Chemistry 361A, only one course in this emphasis may be used for credit in another emphasis offered by the department.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department adviser and be filed with the Office of Admissions and Records.

Environmental Health Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 1214)

Application for admission to this degree program has been suspended for the 1995-96 academic year.

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, and 231; Mathematics 121 and 122, or 150; Physics 180A or 195, 182A or 195L, 180B or 196 and 197, and 182B or 196L and 197L; Psychology 101 or Sociology 101. (41-46 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 350, 464A, 464B, 465, 466, 468A, 468B, 561, and 586; Civil Engineering 555 (prerequisite waived for students in this major); Sociology 410 or Psychology 340 and at least one course selected from Biology 584, Community Health Education 345, Public Administration and Urban Studies 320. Remaining elective courses needed to satisfy the minimum of 36 units must have the prior approval of the environmental health adviser.

Students in this major must have a program of study approved by the Environmental Health adviser (LS-135).

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department and be filed with the Office of Admissions and Records.

Microbiology Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 04111)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in biology courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, 231, and 251; Mathematics 121 and 122, or 150; Physics 180A or 195, 182A or 195L, 180B or 196 and 197, and 182B or 196L and 197L. (43-48 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. It is recommended that students select French, German or Russian to satisfy this requirement. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 28 upper division units to include Biology 350, 352, 354, 356, 585, and Chemistry 361A; at least one laboratory course selected from Biology 521 and 521L, 528 or 584 and 592; and at least three additional units selected from Biology 513, 513L, 514, 549, 551, 551L, 591, and Chemistry 361B.

No transfer course will substitute for Biology 352, 354, or 356 without the specific approval of the Microbiology adviser.

All courses not included above must have the prior approval of the Department and the substitution filed with the Office of Admissions and Records.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department and be filed with the Office of Admissions and Records.

Microbiology Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 04111)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, 231, and 251; Mathematics 121 and 122, or 150; Physics 180A or 195, 182A or 195L, 180B or 196 and 197, and 182B or 196L and 197L (43-48 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 40 upper division units to include Biology 350, 352, 354, 356, 549, 550, 485 or 585, and Chemistry 361A and 361B; at least one laboratory course selected from Biology 521 and 521L, 528, 584 and 592; and at least six additional units selected from Biology 499 (maximum of three units), 513, 521, 521L, 528, 551, 551L, 554, 584, 591, 592, 593, 594, and Chemistry 567.

No transfer course will substitute for Biology 352, 354, or 356.

All courses not included above must have the prior approval of the Department and the substitution filed with the Office of Admissions and Records.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department and be filed with the Office of Admissions and Records.

Emphasis in Medical Technology and Public Health Microbiology

The emphasis in medical technology and public health is a program of required and elective courses which prepares students for the Public Health Microbiologist and Clinical Laboratory Technologist academic certification and licensing examinations.

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, 231, and 251; Mathematics 121 and 122, or 150; Physics 180A or 195, 182A or 195L, 180B or 196 and 197, and 182B or 196L and 197L (43-48 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved courses with a grade of C (2.0) or better.

Major. A minimum of 39 upper division units to include Biology 350, 352, 354, 356, 549, 582, 584, 485 or 585, 592, and Chemistry 361A and 361B. In consultation with the medical technology adviser,

the remaining minimum of six elective units must be selected from Biology 528, 550, 554, 586, 588, 594, and Chemistry 567.

All courses not included above must have the prior approval of the Department and the substitution filed with the Office of Admissions and Records. After completion of the degree requirements a one-year internship at an approved laboratory must precede the examination for licensing or certification for medical technologists.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department and be filed with the Office of Admissions and Records.

Biology Major

For the Single Subject Teaching Credential in Science
With the B.S. Degree in Applied Arts and Sciences
(Major Code: 04011)

This program is subject to the approval of the Commission on Teacher Credentialing.

One of the requirements for acceptance into the College of Education's postgraduate credential program is to either pass the appropriate Praxis examination or complete an approved academic program. The Single Subject Teaching Credential in Science program described below satisfies the academic requirements for a student planning to teach biology at the secondary level. Entrance into the postgraduate credentialing program in part requires certification by this department. In addition to the completion of the academic program, this certification also requires the earning of a B or better in Biology 452 or its equivalent and all courses taken as a postbaccalaureate student.

Preparation for the Major. Biology 201, 202, and 215; Astronomy 101; Chemistry 200, 201, and 231; Geography 103; Geological Sciences 100, Mathematics 121 and 122, or 150; Physics 180A or 195, 180B or 196 and 197, 182A or 195L, 182B or 196L and 197L (47-52 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 units to include Biology 352, 354, 356, 452, Chemistry 361A, Oceanography 541 and at least one course from each of the following groups: Biology 560, 563, or 590 (physiology); Biology 462 and 462L, 470, 515, 520, 523, 524, 525 or 527 (animal biology); Biology 358, 514 and 533 (plant biology); Chemistry 361A. The remaining four to six units must include one or more courses selected from Biology 499, a biology laboratory course acceptable on the major and Chemistry 361B (the recommended combination includes Biology 499 to gain research experience and Chemistry 361B to attain the 20 units of chemistry required for the supplementary credential in chemistry). Biology 496 and 596 courses with the appropriate contents may satisfy one or more group requirements. These and any other courses not listed above must have the prior approval of the Department and the department's credential adviser and must be filed with the Office of Admissions and Records.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department and be filed with the Office of Admissions and Records.

All courses not included above must have the prior approval of the Department and the substitution filed with the Office of Admissions and Records.

Biology Minor

Biology 100 and 100L or 202 are prerequisites to the biology minor and do not count towards the units in the minor; some areas include additional prerequisites not counted towards the minor.

The minor in biology consists of a minimum of 16-22 units to include Biology 201 and at least 12 units of upper division courses selected from one of the areas below. At least one of the selected courses must be a biology laboratory course numbered 350 or above. A maximum of three units of Biology 499 may be included in the minor with prior approval of the department. For courses requiring Biology 215 as a prerequisite, a college level course in statistics may be acceptable with the approval of the instructor.

Animal Behavior

Required: Biology 527; electives: Biology 307, 324, 330, 339, 354, 354L, 462, 506, 524, Anthropology 500 and Psychology 417. (16 units)

Biology for Physiological Psychology

Required: Biology 321, 336, 436, and 570; electives: Biology 307 or 339. At least one college course in chemistry is strongly recommended to complement this minor. (16 units)

Cell Biology and Genetics

Prerequisites: Chemistry 200, 201, 231 and 361A or 560; electives: Biology 350, 352, 356, 521, 521L, 549, 550, 563, 566, and 590. (16 units)

Ecology

Required: Biology 354; electives: Biology 315, 324, 330, 339, 350, 354L, 358, 359, 454, 462, 462L, 513, 535, 539, and 540. (16 units)

Elementary Education

Required: Biology 315, 330, 330L, 336, 436, and at least two units of Biology 499. A college level course in chemistry is strongly recommended to complement this minor. (17 units)

Evolutionary Biology

Required: Biology 319 or 354; electives: Biology 354L, 359, 462, 462L, 470, and 506. (16 units)

Human Biology

Required: Biology 336 and a course in college chemistry, Biology 261 or 590; electives: Biology 150, 307, 321, 352, 362, 577, and 590. (16 units)

Marine Biology

Required: Biology 514 or 515 or 520; electives: Biology 324, 513, 514, 515, 517, 519, 520, and 524. (16 units)

Plant Biology

Required: Biology 358; electives: Biology 358, 362, 514, 528, 530, 533, and 563. (16 units)

Secondary Education

Prerequisite: College level course in statistics. Required: Biology 452 and a college level course in statistics; electives (at least one course from each group): Biology 336, 560, 590; Biology 354; Biology 358, 514 or 533; Biology 462, 462L, 470, 520, 523, 524, 525 or 527. Basic courses in genetics, microbiology, and organic chemistry are recommended. (19-22 units)

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Recombinant DNA Technology Certificate

Matriculated students must apply for admission to the program before completion of 15 certificate units and must complete all prerequisite and required courses with a GPA of 2.5 or better and required courses Biology 550, 551, and 551L with grades of B or better.

The certificate requires 17 prerequisite units-Biology 350, 352, 356; Chemistry 251; and 28-29 certificate units-Biology 498 or 499 (5 units) as approved by the certificate adviser, 550, 551, and 551L; Chemistry 560A-560B or 361A-361B, and 567; and two electives from

Biology 549, 566, 569, or 585. Biology 550, 551, and 551L must be taken at San Diego State University, either in residence or through Open University. Upper division prerequisite and certificate units which may be applied to the major for B.S. degrees in biology, chemistry (biochemistry emphasis), and microbiology are 42-43, 37, and 20 units, respectively.

Courses in the certificate may not be counted toward the minor.

Courses

LOWER DIVISION COURSES

100. General Biology (3) I, II

Prerequisite recommended: Concurrent registration in Biology 100L.

A beginning course in biology stressing processes common to living organisms. Not open to biological sciences majors; see Biology 201, 202.

100L. General Biology Laboratory (1) I, II

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Biology 100.
A laboratory course in biology stressing processes common to living organisms. Not open to biological sciences majors; see Biology 201, 202.

101. World of Animals (3)

Animal adaptation and diversity and their relationship to the development of evolutionary theory. Not open to biological sciences majors. (Formerly numbered Biology 110.)

101L. World of Animals Laboratory (1)

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Biology 101.
Laboratory course on evolution and diversity of animals involving field trips and laboratory investigations. Not open to biological sciences majors. (Formerly numbered Biology 110L.)

130. World of Plants (3)

Basic structure and function of plants with emphasis on interrelationships of plants and man. Not open to biological sciences majors.

130L. World of Plants Laboratory (1)

Prerequisite: Credit or concurrent registration in Biology 130.
Observation, experimentation and demonstration of plants and their activities, emphasizing practical applications. Topics include plant cell structure and division, photosynthesis, mineral nutrition, morphology, anatomy, asexual and sexual reproduction, growth and development, and diversity. Not open to biological sciences majors.

150. Human Anatomy (4) I, II

Two lectures and six hours of laboratory.
Prerequisite: An introductory course in high school biology or zoology.
Gross and microscopic anatomy of the organ system of the human body.

200. Concepts in Biology (3) I

Two lectures and one hour of discussion.
Prerequisite: First semester freshman standing.
Concepts and emphases of modern biology to include nature and methods of science, relationship between structure and function, homeostasis, genetic continuity, evolution, systematics and ecology. Designed for and enrollment limited to first semester freshmen whose preparation for the major includes Biology 201. Students with credit in Biology 200 and 201 will receive a total of four units toward a degree.

201. Principles of Organismal Biology (4) I, II

Three lectures and three hours of laboratory.
Principles of biology covering all organisms, including systematics and diversity of bacteria, protista, fungi, plants and animals, and concepts of physiology, reproduction, development and differentiation, ecology, and the causes of the endangerment of a species. (Formerly numbered Biology 200B.)

202. Principles of Cell and Molecular Biology (4) I, II

Three lectures and three hours of laboratory.
Prerequisite: Chemistry 200.

Principles of biology applying to all organisms, including cell structure, membrane transport, energy metabolism, cell division, classical and molecular genetics, recombinant DNA, population genetics, mechanisms of evolution, and the basis of classification. (Formerly numbered Biology 200A.)

210. Fundamentals of Microbiology (4) I, II

Two lectures and six hours of laboratory.

Prerequisites: Chemistry 100 and 130, or 200 and 201. Students with credit in Biology 120 may enroll but will receive only one additional unit of credit.

A course for nursing and foods and nutrition majors. Study of the microorganisms of the environment, including the disease-producing organisms, their actions and reactions. Not open to biological sciences majors; see Biology 350.

215. Quantitative Biology (3) I, II

Two lectures and three hours of laboratory.

Prerequisites: Mathematics 121 or 140; credit or concurrent registration in Biology 201.

Methods and experience in defining and solving quantitative problems in biology, including the design of experiments, and parametric and nonparametric statistical techniques. Students with credit or concurrent registration in the following lower division courses will be awarded a total of four units for the two (or more) courses: Biology 215, Economics 201, Engineering 140, Mathematics 119, 250, Political Science 201, Psychology 270, and Sociology 201.

224. Marine Topics at Sea World (1) (Offered only in Extension)

Prerequisite: College course in biology.

Marine topics of current interest. May be repeated with different topic and consent of instructor for maximum credit four units. See Extension catalog for specific content.

248. Careers in Biological Sciences (1) Cr/NC

Career opportunities in biological sciences. Specialists in major biological areas will present information about their fields and how best to prepare for careers.

250. Preprofessional Topics (1) Cr/NC

- A. Topics in Medicine.
- B. Topics in Dentistry.
- C. Topics in Veterinary Medicine.

Designed to expose the preprofessional student to the profession of his/her choice through speakers and selected readings. Emphasis on alternatives and meeting stresses as a preprofessional student.

Maximum combined credit three units for 250A, 250B and 250C.

261. Human Physiology (4) I, II

Three lectures and three hours of laboratory.

Prerequisites: Chemistry 100; Biology 150; credit or concurrent registration in Chemistry 130.

Human function viewed from cellular through organ system levels of organization. Intended primarily for prenursing students. Not open to biological sciences majors; see Biology 560 or 590. Students with credit in Biology 261 and 336 will receive a total of four units towards graduation.

277. Medical Terminology (2) I

Prerequisite: Biology 201.

Words and word components used in medical and allied medical practice translated, investigated, and applied.

291. Biology Laboratory (1) I, II

Prerequisites: Recommendation by department and consent of instructor.

Special course to allow makeup of program laboratory deficiencies. Student will be assigned to a laboratory section of the appropriate course.

- A. Laboratory for Biology 201.
- B. Laboratory for Biology 202.
- C. Laboratory for Biology 215.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

299. Special Study (1-2)

Individual research experience and interaction with researchers at an introductory level. Projects involve approximately 45 hours of laboratory or fieldwork per unit and a research report. Hours are flexible and arranged between the student and the researcher. Maximum credit four units.

UPPER DIVISION COURSES (Intended for Undergraduates)

307. Biology of Sex (3) I, II, S

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences.

Reproductive adaptations in humans, and comparatively in other species. Topics include sex differences, mate choice and mating behavior, fertility regulation, fertilization and embryonic development, sex ratios, parental investment, effects of aging, and life history strategies. Not applicable to the biological sciences majors.

315. Ecology and Human Impacts on the Environment (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning.

Ecological characteristics of natural ecosystems and basic effects of human society upon those systems, emphasizing resource management, food production, global environmental problems, and future directions. Not applicable to biological sciences majors.

318. The Origins of Life (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning. A college level course in chemistry or physics.

Theories of chemical evolution with emphasis on multidisciplinary aspects involving geology, geochemistry, cosmochemistry and molecular biology. (Formerly numbered Natural Science 431.)

319. Evolution (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Modern theory of organic evolution with emphasis on processes involved as they relate to past, present, and future evolution of mankind. Not open to biological sciences majors; see Biology 354 or 471.

320. Dinosaurs (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Rise and fall of dinosaurs, their biology, and evolutionary relationships. Not applicable to biological sciences majors.

321. Human Heredity (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Selected principles of human inheritance with emphasis on relationships to other fields of human studies. Not open to students with credit in Biology 160 or to biology or microbiology majors; see Biology 352.

324. Life in the Sea (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Overview of complexity of marine life. Diverse interactions of organisms in the intertidal zone, over the continental shelves and in the open oceans. Current controversies concerning the marine biosphere. Not applicable to the biological sciences majors.

325. How Animals Work (3)

Prerequisites: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Adaption of animals, including insects, fish, birds and mammals, to their environment. Topics explore various physiological concepts utilized by animals to survive under strikingly different conditions. Not open to biological sciences majors, see Biology 560.

330. Natural History of Animals and Plants (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Ecology, behavior, and diversity of animals and plants and their interactions; the evolution of natural history characteristics. Emphasis on local species. Not applicable to the biological sciences majors.

330L. Natural History of Animals and Plants Laboratory (1)

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 330.

Laboratory in natural history of animals and plants, with emphasis on field observations of the local species. Not applicable to the biological sciences majors.

336. Principles of Human Physiology (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Systems of the human body, their interrelationships and control systems which regulate them. Not open to students with credit in Biology 261, 410, 560 or 590. Not applicable to the biological sciences majors.

339. Sociobiology (3)

Prerequisites: Biology 100 or 101 or Anthropology 102 or Psychology 101, and completion of the General Education requirement in Foundations II.A.2. Life Sciences.

Biological bases of social behavior in animals with emphasis on altruism, aggression, territoriality, mating systems, mate choice, parental care, communication, cooperative hunting, and predator avoidance. Not applicable to biological sciences majors.

340A. Preventive Dentistry Program (1-2) Cr/NC

Four hours of clinical and other activities per unit.

Prerequisites: Upper division standing and active pre dental file in the Preprofessional Health Advising Office.

Participation in clinic, dental observation, marketing activities and two field trips. Maximum credit four units. Not applicable to biological sciences majors.

340B. Preventive Dentistry Leaders (2-4)

Four hours of activity per unit.

Prerequisites: Biology 340A and consent of instructor.

Supervision of one component of Preventive Dentistry Program. Maximum credit four units. Not applicable to biological sciences majors.

341. The Human Body (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences.

Survey of human body with emphasis on intricacy of design and integration of various organ systems. Not open to nursing, physical education, or biological sciences majors, or to students with credit in any college level human physiology or anatomy course.

350. General Microbiology (4) I, II

Two lectures and six hours of laboratory.

Prerequisites: Biology 201, 202, and 215; Chemistry 231.

Actions and reactions of microorganisms in response to their environment, both natural and as changed by other organisms, including man. Also includes an introduction to pathogens.

352. General Genetics (3) I, II

Prerequisites: Biology 201, 202, and 215; credit or concurrent registration in Chemistry 361A.

Principles of transmission genetics, population genetics and evolution, and molecular genetics. Not open to students with credit in Biology 351, 357 or 546.

354. Ecology and Evolution (3) I, II

Prerequisites: Biology 201 and 215.

Fundamental concepts in population and community ecology and evolutionary biology. Not open to students with credit in Biology 353.

354L. Experimental Ecology and Evolution (2)

One hour of discussion and three hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 354.

Methods of research in ecology and evolutionary biology; approaches to analysis of populations and communities.

356. Cell Biology (5) I, II

Three lectures and six hours of laboratory.

Prerequisites: Biology 201, 202, and 215; Chemistry 361A; Physics 180A, 180B, 182A, and 182B.

Structure and function of prokaryotic and eukaryotic cells and cell organelles.

358. California Flora (3)

Two lectures and three hours of laboratory (Field).

Prerequisite: Biology 201.

Local native and naturalized plants in San Diego County and selected areas of California. Identification of plants and plant communities.

359. Endangered and Extinct Species (3)

Prerequisite: A college course in biological sciences.

Examination of reasons that some plants and animals become rare, endangered and extinct. Emphasis on man's activities as pressure that often leads to extinction.

362. Plants, Medicines, and Drugs (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Medicinal plants, toxic-poisonous plants, herbal medicines, psychoactive plants, preparation of medicines and mechanisms of action; current research results on medicinal plants and drugs used in diseases such as diabetes, cancer, and heart diseases.

436. Human Physiology Laboratory (1)

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 336 or 590.

Laboratory work in human physiology. Not open to students with credit in Biology 261. (Formerly numbered Biology 336L.)

452. Biology Concept Development and Integration (3)

Two lectures and three hours of activity.

Prerequisite: Senior standing, or participation in a life sciences single subject credential program.

Development and integration of biological science content knowledge, introduction to learning theory, and transformation of knowledge. Designed for students preparing for the single subject teaching credential in life sciences.

454. Conservation of Wildlife (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Global ecosystems and their dynamics, with emphasis on sustainable human use and preservation and biodiversity.

462. Entomology (3)

Prerequisite: Biology 201.

Morphological and behavior adaptations, natural history, and overall importance of insects.

462L. Entomology Laboratory (1)

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 462. External and internal structure of insects; insect classification.

464A-464B. Principles of Environmental Health (3-3)

Prerequisite: Biology 202. Recommended: Biology 350.

General principles of environmental sanitation, including the relationship of the various aspects of physical environment to preventive medicine; the provision of clean air and water, proper waste disposal, safe food supply, and adequate habitation.

465. Field Orientation in Environmental Health (1)

Forty hours of fieldwork.

Prerequisites: Biology 350 and consent of Environmental Health Adviser.

Five days accompanying Environmental Health Specialists of the San Diego County Department of Health Services on their field rounds. Course satisfies state requirements for field experience for Environmental Health majors.

466. Environmental Health Administration (3)

Concepts of organization and administration applied to environmental health; factors affecting these at the local, national and international levels.

468A-468B. Epidemiology (2-2)

Prerequisite: Biology 350.

Study of the transmission, distribution, and control of infectious and noninfectious diseases in the community.

470. Biology of Vertebrates (4)

Three lectures and three hours of laboratory.

Prerequisite: Biology 354.

An introductory course in the biology of the vertebrates with emphasis on the vertebrate organism as a whole; anatomy, physiology, development, and evolution.

471. Analysis of Evolutionary Criticism (3)

Prerequisite: Upper division standing in physical or life sciences.

Evolutionary theory examined through study of criticisms against it. Fringe science ideas examined for value as object lessons.

485. Principles of Immunology (2)

Prerequisite: Biology 202.

Basic areas of immunology to include inflammation, generation of immune response, antibody production, lymphocyte development and function, hypersensitivities and AIDS, major histocompatibility complex and cytokines. Designed to give a basic background in the immune system. Note open to students with credit in Biology 585.

496. Experimental Topics (1-4)

Selected topics. May be repeated once with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

498. Laboratory Experience in Modern Industrial Technology (1-5) Cr/NC I, II

Up to 20 hours per week in academic year, 40 hours per week in summer or winter sessions.

Prerequisites: Fifteen upper division units in biological sciences with grades of A or B and consent of instructor.

Practical laboratory experience in local industrial or SDSU campus laboratories emphasizing current technology. Maximum credit five units applicable to Recombinant DNA Technology certificate. Does not apply to biological sciences majors.

499. Special Study (1-3) I, II

Prerequisites: Upper division status in good standing and consent of instructor.

Individual research experience and interaction with researchers, on or off campus. Projects involve a total of approximately 45 hours of laboratory or fieldwork per unit and a research report. Hours are flexible and arranged between student and researcher. Maximum credit six units. Maximum six units applicable to the biology major for any combination of Biology 499, and Chemistry 499. Maximum three units applicable to the microbiology major or environmental health major for any combination of Biology 499 and Chemistry 499.

**UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)****506. Special Topics in Entomology (3-4)**

Prerequisite: Biology 462.

Treatment of some aspect of entomology, such as biological control, microbial control or forest entomology, not covered in regularly scheduled courses. See Class Schedule for specific content. Maximum credit nine units. Maximum credit six units applicable to a master's degree. (Formerly numbered Biology 506A.)

508. Coevolution (3)

Prerequisite: Biology 354.

Coevolution in interspecific interactions, like herbivory, predation, parasitism, competition, pollination, and mimicry.

510. Evolutionary Mechanisms (3)

Two lectures and three hours of laboratory.

Prerequisites: Biology 352 and 354.

Concepts in population genetics, quantitative genetics, adaptation, speciation, and macroevolution required to understand the mechanisms of evolution.

512. Evolution and Ecology of Marine Mammals (3)

Two lectures and three hours of laboratory.

Prerequisite: Biology 354.

Biology of marine mammals to include pinniped, cetacean and sirenian evolution, diet and foraging strategies, social organization, reproductive strategies, echolocation, diving physiology, and conservation.

513. Marine Microbiology (2)

Prerequisites: Biology 350 or an introductory course in microbiology and consent of instructor.

Microbiological population of estuary and ocean waters; interrelationships with other organisms and the physical and chemical environment.

514. Marine Plant Biology (4)

Three lectures and three hours of laboratory.

Prerequisite: Biology 201.

Biology of algae and seagrasses, including identification, life histories, evolution, morphology, physiology, and ecology.

515. Marine Invertebrate Biology (4)

Two lectures and six hours of laboratory.

Prerequisite: Biology 201.

Structure and function, ecology, behavior, physiology and phyletic relationships of marine invertebrate animals.

516. Intertidal Ecology (3-4)

Three units = Three lectures per week.

Four units = Three lectures and three hours of laboratory.

Prerequisite: Biology 354 or 515.

Intertidal ecology with emphasis on marine invertebrates. Abiotic and biotic characteristics of rocky coasts, sandy beaches, and muddy shores with discussion of adaptive strategies for survival in intertidal environment.

517. Marine Ecology (4)

Two lectures and six hours of laboratory.

Prerequisite: Biology 354 or 515.

Ecological concepts as applied to pelagic and benthic marine organisms and their environment. Field and laboratory experience in oceanographic techniques, particularly the coastal environment.

519. Aquaculture (3)

Prerequisite: Biology 201.

Principles and practices of the farming of aquatic organisms.

520. Ichthyology (4)

Two lectures and six hours of laboratory.

Prerequisite: Biology 201.

Identification, systematics, evolution, structure, physiology, behavior and ecology of fishes.

521. Advanced General Microbiology (2)

Prerequisites: Biology 350 or an introductory course in microbiology and consent of instructor.

Taxonomy, comparative physiology and ecology of representative microorganisms found in various natural environments.

521L. Advanced General Microbiology Laboratory (2)

Six hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 521.

Methods and procedures for the selective isolation and characterization of important groups of soil and water bacteria.

523. Herpetology (4)

Three lectures and three hours of laboratory.

Prerequisite: Biology 201.

Origin, evolution, distribution and systematics of amphibians and reptiles of the world.

524. Ornithology (4)

Two lectures, six hours of laboratory or field excursions, and a field project.

Prerequisite: Biology 201.

Study and identification of birds, especially those of the Pacific Coast and the San Diego region.

525. Mammalogy (4)

Two lectures and six hours of laboratory.

Prerequisite: Biology 201.

Evolution, systematics, distribution and ecology of mammals of the world.

527. Animal Behavior (4)

Three lectures and three hours of laboratory.

Prerequisites: Biology 215; Biology 201 or Psychology 211 and 260 for psychology majors.

Biological bases of animal behavior with emphasis on the ethological approach, including the evolution and adaptive significance of behavior.

528. Mycology (4)

Two lectures and six hours of laboratory.

Prerequisite: Biology 201.

The structure, food relations, and classification of fungi.

530. Plant Systematics (4)

Two lectures and six hours of laboratory, field trips.

Prerequisite: Biology 201.

Plant description, identification, classification, and nomenclature with emphasis on evolutionary patterns, interdisciplinary data acquisition, and phylogenetic analysis.

533. Plant Structure and Function (3)

Two lectures and three hours of laboratory.

Prerequisite: Biology 201.

Relationships between plant structure and function. Morphology and anatomy of vascular plants considering specific function of plant organs. Approaches to solve plant morphological problems. Techniques of plant anatomy.

535. Plant Ecology (4)

Three lectures and three hours of laboratory.

Prerequisite: Biology 201.

Plant adaptation and response to living and non-living environment including aspects of plant evolution, demography, ecophysiology, community and ecosystem dynamics and soil-plant relationships. Terrestrial systems emphasized.

539. Restoration Ecology (3)

Two lectures and three hours of laboratory.

Prerequisite: Biology 354.

Ecological concepts pertaining to the restoration of disturbed ecosystems, including plant establishment, stability of man-made ecosystems, below-ground biota, mineral cycling, succession, and other organisms and processes on disturbed lands.

540. Conservation Ecology (3)

Two lectures and three hours of laboratory.

Prerequisite: Biology 354.

Human impacts on ecosystems, the resultant endangerment and extinction of plant and animal species, and strategies for the protection and recovery of threatened forms.

543. Ecological Methods (1-3)

Three hours of laboratory per unit.

Prerequisites: Biology 215 and 354 or 454.

Modular course in vegetation sampling, ecophysiological methods, plankton sampling, benthic community/population analysis, and ecological data analysis. See Class Schedule for specific content. Maximum credit three units.

545. Limnology (4)

Three lectures and three hours of laboratory.

Prerequisite: Biology 354.

Biological, chemical, and physical considerations of inland waters.

549. Microbial Genetics and Physiology (3)

Prerequisites: Biology 350 and 352; Chemistry 361A.

Physiology of microbial growth, bacterial structure and function, genetics of bacteriophages and bacteria.

550. Prokaryotic and Eukaryotic Molecular Biology (4) I, II

Prerequisites: Biology 352 and Chemistry 361A, 361B. Recommended: Biology 356.

Gene structure, organization and regulation in prokaryotes and eukaryotes. Mechanisms of RNA and protein synthesis. Dynamic aspects of the genome.

551. Recombinant DNA (3) I, II

Prerequisites: Chemistry 361A; Biology 350, 352, 356, and 550.

Theory and practice of recombinant DNA techniques.

551L. Recombinant DNA Laboratory (2)

Six hours of laboratory.

Prerequisites: Biology 350 and 549 or 550.

A laboratory course in recombinant DNA techniques.

554. Molecular Virology (2)

Prerequisite: Biology 356. Recommended: Biology 550.

Molecular aspects of structure, genetics, and replication of viruses, virus-host interactions, pathogenesis of virus infections, diagnostic virology, and antiviral vaccines and drugs; emphasis on human pathogens.

560. Animal Physiology (3)

Prerequisites: Biology 201 and 202; Chemistry 361A; Physics 180B and 182B.

Physiology of vertebrate and invertebrate animals with emphasis on diversity of solutions to physiological problems and on functional integration of organ systems.

561. Radiation Biology (3)

Prerequisites: Physics 180B and 182B; Biology 100 or 201 and 202. Recommended: Biology 356.

Principles underlying radiological reactions of ionizing radiations. Effects of ionizing radiations at the biochemical, cell, organ, and organism levels.

561L. Radiation Biology Laboratory (2)

Six hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 561.

The laboratory determination of the effects of ionizing radiation on biological systems.

563. Plant Physiology (3)

Prerequisites: Biology 201 and 202; Chemistry 361A or 560A.

Activities of plants, including photosynthesis, ion transport, translocation, water relations, growth and development.

566. Plant Molecular Biology (2)

Prerequisites: Biology 352 and Chemistry 361A. Recommended: Biology 550 or 563.

Problems in plant growth, development, and adaptation from modern molecular biology perspective including techniques of plant biotechnology and applications of genetic engineering to agriculture.

567. Molecular Endocrinology (3)

Prerequisite: Biology 356.

Molecular mechanisms of endocrine hormone biosynthesis, secretion, and actions.

569. Molecular Pharmacology (3)

Prerequisite: Biology 356. Recommended: Biology 567.
Molecular mechanisms of pharmaceutical agents. Emphasis on drugs that interact with nervous and endocrine systems.

570. Neurobiology (3)

Prerequisite: Biology 356 or 590 or Psychology 260.
Structure and function of the nervous system to include cellular and molecular mechanisms underlying neuronal excitability and synaptic function, nervous system development, cellular and systems analysis of sensory, motor and higher brain functions. Emphasis on experimental approaches.

577. Embryology (4)

Two lectures and six hours of laboratory.
Prerequisites: Biology 201 and 202.
Studies in comparative gametogenesis, morphogenesis, and reproductive physiology.

582. Hematology (3)

Two lectures and three hours of laboratory.
Prerequisite: Biology 350.
Study of normal and pathological blood with chemical, physical and microscopic methods.

584. Medical Microbiology (2)

Prerequisites: Biology 350 and 356.
Discussion of major bacterial and viral pathogens; molecular mechanisms of pathogenesis; microbial toxins and antimicrobial agents; immune response to microbial infections; biochemical and molecular diagnostics. Not open to students with credit in Biology 589.

585. Cellular and Molecular Immunology (3)

Prerequisites: Biology 202 and Chemistry 361A. Recommended: Biology 352 and 356.
Cellular and molecular aspects of the immune response. Genetics of immunoglobulins, major histocompatibility complex, lymphocyte development and their manifestations on immune responsiveness, lymphokines immunopathologies including AIDS, and contemporary immunological techniques. Not open to students with credit in Biology 485.

586. Medical Entomology (4)

Three lectures and three hours of laboratory.
Prerequisite: Biology 201.
Role of insects and other arthropods in the transmission and causation of human diseases and the important diseases of domesticated animals.

588. Parasitology (4)

Two lectures and six hours of laboratory.
Prerequisite: Biology 201.
Study of animal parasites with special reference to those of humans. Laboratory including identification of important human parasites, and collection and preservation of local forms.

590. Physiology of Human Systems (4)

Three lectures and one hour of discussion.
Prerequisites: Physics 180B and 182B; Biology 201 and 202. Recommended: Chemistry 361A and 361B or Biology 356.

Human physiology presented at cellular and organ system levels: membrane transport, nerve excitation, muscle contraction, cardiovascular physiology, kidney function, hormone function, reproduction and digestion. For students majoring in a natural science or engineering.

591. Advanced Immunology (3)

Six hours of laboratory.
Prerequisites: Biology 356 and 585; Chemistry 361B.
Analysis of selected immunological topics using recent literature articles and reviews.

592. Cell and Molecular Biology Laboratory (2)

Six hours of laboratory.
Prerequisites: Biology 350 and 356.
Laboratory course in advanced techniques in microbiology and cell and molecular biology. Not open to students with credit in Biology 589.

593. Scanning Electron Microscopy (2)

One lecture and three hours of laboratory.
Prerequisite: Biology 201.
Theory and use of a scanning electron microscope for biological research. Laboratory is project oriented.

594. Radioisotope Techniques in Biology (4)

Two lectures and six hours of laboratory.
Prerequisites: Physics 180B and 182B; Biology 100 or 201 and 202. Recommended: Biology 356 and Chemistry 251.
Principles and application of radioisotopes in biology. Radioisotope measurement, safe handling, tracer and radioautography techniques.

595. Computers in Biomedical Research (3)

Prerequisite: Biology 356 or 590. Recommended: Computer Science 107.
Application of micro- and minicomputers to tasks encountered by biomedical scientists in research laboratories (data acquisition and reduction, experiment control) and by physicians in medical care delivery (noninvasive imaging, clinical laboratory automation, patient file processing).

596. Special Topics in Biology (1-3)

Prerequisite: Consent of instructor.
Advanced selected topics in modern biology. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree. Additional units acceptable with the approval of the graduate adviser.

597A. Univariate Statistical Methods in Biology (3)

Two lectures and three hours of laboratory.
Prerequisites: Biology 215, and 350 or 352 or 354 or 356.
Application of univariate statistical techniques in biological sciences.

597B. Multivariate Statistical Methods in Biology (3)

(Same course as Mathematics 555.)
Two lectures and three hours of laboratory.
Prerequisites: Biology 215, and 350 or 352 or 354 or 356.
Application of multivariate statistical methods in biological sciences.

GRADUATE COURSES

Refer to the Graduate Bulletin.

Business Administration

Please see Accountancy; Finance; Information and Decision Systems; Management; Marketing.

Chemistry

In the College of Sciences

OFFICE: Chemistry/Geology 303

TELEPHONE: (619) 594-5595

Accredited by the American Chemical Society.

Faculty

Emeritus: Abbott, Hellberg, Isensee, Jensen, Jones, Joseph, Malik, Mathewson, O'Neal, Richardson, Rowe, Spangler, Stewart, Wadsworth, Walba

Chair: Roeder

Professors: Bennett, Cobble, Coffey, Dahms, Grubbs, Landis, Leber, Metzger, Ring, Roeder, Sharts, Stumph, Tong, Woodson

Associate Professors: Chatfield, Cole

Assistant Professors: Adams, Pullman, Smith, Walsh

Offered by the Department

Doctor of Philosophy degree in chemistry.

Master of Arts degree in chemistry.

Master of Science degree in chemistry.

Major in chemical physics with the B.S. degree in applied arts and sciences.

Major in chemistry with the B.S. degree in applied arts and sciences with the Certificate of the American Chemical Society.

Emphasis in biochemistry.

Major in chemistry with the B.A. degree in liberal arts and sciences, with or without the Certificate of the American Chemical Society.

Minor in chemistry.

The Major

Through the study of chemistry students can better understand their environment and develop new materials that provide for a higher quality of life. Chemists are involved in a wide range of careers in research, development and the production of new goods. Basic chemical research provides society with discoveries of new substances and the means to predict their chemical and physical properties. In developmental chemistry, professionals find ways to put them to use. There are careers in methods of production to provide these materials to society in a cost-effective way. In each of these areas, there are subspecialties in analytical, biochemical, inorganic, organic, and physical chemistry.

The Department of Chemistry offers five degree programs leading to the Bachelor of Arts degree, the Bachelor of Science degree, the Master of Arts degree, the Master of Science degree, and the Doctor of Philosophy degree (with the University of California, San Diego).

There are several options available in the undergraduate program for those wishing either a major or a minor in chemistry. A chemistry major with the Bachelor of Science degree and certificate of the American Chemical Society is designed to qualify students for many types of positions as chemists and for admission to graduate study.

The chemistry major with the Bachelor of Arts degree and certificate of the American Chemical Society is specifically designed to prepare students for careers and graduate work requiring a strong chemistry background. With an appropriate choice of electives, graduates can meet the requirements for admission to medical, dental and pharmaceutical schools. A minor in biology is recommended.

The use of chemistry electives allows a student to focus on a particular area in chemistry such as analytical chemistry, biochemistry, bioinorganic chemistry, chemical physics, inorganic chemistry, organic chemistry, or physical chemistry.

Chemistry Major

With the B.S. Degree in Applied Arts and Sciences

(Major Code: 19051)

and Certificate of the American Chemical Society

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Chemistry 200, 201, 231, 251; Mathematics 150, 151, 252; and Physics 195, 195L, 196, 196L, 197, 197L (44 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Chemistry 410A-410B, 417, 431, 457, 520A-520B, 550, 560A, one unit of 497, and nine units of upper division electives in chemistry. Six of the nine units may be in related subjects with the approval of the department.

Emphasis in Biochemistry

Preparation for the Major. Chemistry 200, 201, 231, 251; Biology 201, 202; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, and 197L (52 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Chemistry 410A-410B, 431, 457, 550, 560A-560B, 567; Biology 352*, one unit of Chemistry 497 or 498; and nine units selected from Chemistry 520A, 537, 551; Biology 350, 356, 549, 550, 551, 551L, 561, 561L, 563, 564, 566, 567, 569, 570, 585, 590, 591, 594, 595. The addition of Chemistry 520A and 520B qualifies this program for ACS certification.

* Chemistry 560A replaces Chemistry 361A as a prerequisite; Chemistry 410A replaces Biology 215 as a prerequisite.

Chemistry Major

With the B.A. Degree in Liberal Arts and Sciences

(Major Code: 19051)

and Certificate of the American Chemical Society

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in chemistry courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Chemistry 200, 201, 231, 251; Mathematics 150, 151, 252; and Physics 195, 195L, 196, 196L, 197, 197L (44 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units in chemistry to include Chemistry 410A-410B, 417, 431, 457, 520A-520B, 550; one unit of Chemistry 497.

NOTE: See following page for recommended sequence of courses for the B.S. and B.A. Degrees and Certificate.

OUTLINE FOR THE B.S. DEGREE AND CERTIFICATE

		Units				Units	
		1st Sem.	2nd Sem.			1st Sem.	2nd Sem.
First year				Second year			
Chemistry 200	5	—	—	Chemistry 231	4	—	—
Chemistry 201	—	5	—	Chemistry 251	—	5	—
† Mathematics 150, 151	5	4	—	Chemistry 431	—	4	—
Physics 195, 195L	—	4	—	Mathematics 252	4	—	—
Rhetoric and Writing 100	3	—	—	Physics 196, 196L	4	—	—
Rhetoric and Writing 200	—	3	—	Physics 197, 197L	—	4	—
Speech Communication 103	3	—	—	General Education	3	3	—
	16	16			15	16	
		Units				Units	
		1st Sem.	2nd Sem.			1st Sem.	2nd Sem.
Third year				Fourth year			
Chemistry 410A-410B	4	3	—	Chemistry 417	—	2	—
Chemistry 560A	3	—	—	Chemistry 457	2	—	—
Chemistry Elective	—	4	—	Chemistry 497	1	—	—
American Institutions	3	3	—	Chemistry 520A-520B	3	3	—
General Education	6	6	—	Chemistry 550	2	—	—
	16	16		Chemistry Electives	3	2	—
				General Electives	—	6	—
				General Education	6	3	—
					17	16	

† Some students will be required to take Mathematics 104 or 140 or both in their first semester because of failure to qualify on the mathematics placement examination. The appropriate number of units should then be subtracted from General Electives.

OUTLINE FOR THE B.A. DEGREE AND CERTIFICATE

		Units				Units	
		1st Sem.	2nd Sem.			1st Sem.	2nd Sem.
First year				Second year			
Chemistry 200	5	—	—	Chemistry 231	—	4	—
Chemistry 201	—	5	—	Chemistry 251	5	—	—
† Math. 104, 140, 150	5	5	—	Mathematics 151, 252	4	4	—
Physics 195, 195L	—	4	—	Physics 196, 196L	4	—	—
Rhetoric and Writing 100	3	—	—	Physics 197, 197L	—	4	—
Speech Communication 103	3	—	—	General Education	3	3	—
General Education	—	3	—		16	15	
	16	17					
		Units				Units	
		1st Sem.	2nd Sem.			1st Sem.	2nd Sem.
Third year				Fourth year			
Chemistry 410A-410B	4	3	—	Chemistry 417	—	2	—
Chemistry 431	4	—	—	Chemistry 457	2	—	—
American Institutions	3	3	—	Chemistry 497	1	—	—
General Education	3	9	—	Chemistry 520A-520B	3	3	—
	14	15		Chemistry 550	2	—	—
				General Electives	4	5	—
				General Education	3	6	—
					15	16	

† Students eligible to take Mathematics 150 in their first semester should do so and substitute for Mathematics 104 and/or 140 two to five units of general electives.

Chemistry Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 19051)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in chemistry courses can apply to the degree.

Preparation for the Major. Chemistry 200, 201, 231; Biology 201, 202; Mathematics 104, 140, 150, 151, 252; and Physics 195, 195L, 196, 197, 197L. (52 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units in chemistry to include Chemistry 410A-410B, 417, 431, 457, 550, and seven units of electives in chemistry. Chemistry 361A-361B or 560A-560B is recommended for all premedical students.

Minor. A minor in biology is expected for preprofessional students.

Chemical Physics Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 19081)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Individual master plans for each student are filed with the chemistry and physics undergraduate advisers and the Office of Admissions and Records.

A minor is not required with this major.

Preparation for the Major. Chemistry 200, 201, 231, 251; Mathematics 150, 151, and 252; Physics 195, 195L, 196, 196L, 197, 197L. (44 units)

Recommended: A course in computer programming.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 45 upper division units to include Chemistry 410A-410B, 431, 457, 520A, 550; Mathematics 342A-342B; Physics 311, 350, 354A-354B, 357, 400A-400B. Recommended: Mathematics 342C.

Chemistry Minor

The following courses are prerequisite to the chemistry minor and do not count toward the 15 units required for the minor: Chemistry 200, 201. (10 units.)

The minor in chemistry consists of 15 units in chemistry to include Chemistry 231 and 251; and six units of upper division electives. Chemistry 410A-410B** are strongly recommended.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

** Additional prerequisites in mathematics and physics required for these courses.

Graduation with Distinction

A student desiring to graduate with Distinction in Chemistry must meet the university requirements listed in the section of this catalog on "Graduation Requirements" and in addition have completed four units of Chemistry 498 by the time of graduation and be recommended by the faculty member directing the Chemistry 498 project.

Courses

LOWER DIVISION COURSES

100. Introduction to General Chemistry with Laboratory (4) I, II

Three lectures and three hours of laboratory.

Elementary principles of chemistry used to illustrate nature and development of modern scientific thought. Not open to students with credit in Chemistry 105 or 200.

105. Preparation for General Chemistry (4) I, II

Three lectures and three hours of laboratory.

Elemental principles of chemistry approached from problem-solving perspective necessary for success in Chemistry 200. Not open to students with credit in Chemistry 100 or 200.

130. Elementary Organic Chemistry (3) I, II

Prerequisite: Chemistry 100, 105, or 200.

Introduction to compounds of carbon including both aliphatic and aromatic substances. Not open to students with credit in Chemistry 230, 231, or 232.

160. Introductory Biochemistry (3) I, II

Prerequisite: Chemistry 130.

Fundamental principles of the chemistry of living processes. This course intended primarily for majors in home economics, nursing, and related fields.

200. General Chemistry (5) I, II (CAN CHEM 2)

Three lectures and six hours of laboratory.

Prerequisites: High school chemistry or a grade of "C" or better in Chemistry 105, and two years of high school algebra.

General principles of chemistry with emphasis on inorganic materials. Students with credit for either Chemistry 100 or 105, and 200 will receive a total of five units of credit toward graduation.

201. General Chemistry (5) I, II (CAN CHEM 4)

Three lectures and six hours of laboratory.

Prerequisite: Chemistry 200.

Continuation of Chemistry 200. General principles of chemistry with emphasis on inorganic materials and qualitative analysis. Duplicate credit will not be allowed for the corresponding course in Chemistry 202.

231. Organic Chemistry (4) I, II

Three lectures and three hours of laboratory.

Prerequisite: Chemistry 201.

Properties and synthesis of organic compounds including reaction mechanisms. First half of a year course. Not open to students with credit in Chemistry 230.

232. Organic Chemistry (3) (Summer only)

Prerequisite: Chemistry 201.

Properties and synthesis of organic compounds including reaction mechanisms. First half of a one-year course.

232L. Organic Chemistry Laboratory (1) (Summer only)

Three hours of laboratory.

Prerequisite: Chemistry 201.

Properties and synthesis of organic compounds including methods of separation and purification techniques.

251. Analytical Chemistry (5) I, II

Three lectures and six hours of laboratory.

Prerequisites: Chemistry 201 and credit or concurrent registration in Mathematics 122 or 150.

Introduction to the theory and practice of analytical chemistry including gravimetric, volumetric, and instrumental methods.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

299. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Intended for Undergraduates)

361A-361B. Fundamentals of Biochemistry (3-3) I, II

Prerequisite: Chemistry 231. Chemistry 361A is prerequisite to Chemistry 361B.

The chemistry of intermediary metabolism and its regulation. Not open to students with credit in Chemistry 560A-560B.

402. Chemical Literature (2)

Prerequisite: Upper division standing in chemistry.

Availability, type, scope, and use of chemical literature with emphasis on chemical abstracts, Beilstein, Gremlin, science citation indexes, patent literature, and secondary review literature. Description of computerized chemistry data bases and use of remote terminals to access data bases.

410A-410B. Physical Chemistry (4-3) I, II

410A: Three lectures and three hours of laboratory.

410B: Three lectures.

Prerequisites: Chemistry 251 and 231; Mathematics 252; and credit or concurrent registration in Physics 197 and 197L. Chemistry 410A is prerequisite to 410B.

Theoretical principles of chemistry with emphasis on mathematical relations. Theory and practice in acquisition and statistical analysis of physical measurements on chemical systems. (Students with credit in Chemistry 407 will receive only three units credit for 410A.)

417. Advanced Physical Chemistry Laboratory (2) II

Six hours of laboratory.

Prerequisites: Chemistry 410B, 457, and 550.

Experimental physical chemistry. Emphasis on interpretation and statistical evaluation of instrument-derived results, record keeping, report writing, and individual initiative in observing results.

431. Organic Chemistry (4) I, II

Three lectures and three hours of laboratory.

Prerequisite: Chemistry 231.

Continuation of Chemistry 231.

457. Instrumental Methods of Chemical Analysis Laboratory (2) I

Six hours of laboratory.

Prerequisites: Chemistry 431 and credit or concurrent registration in Chemistry 410B; concurrent registration in Chemistry 550.

Application of instrumental methods of chemical separations and analysis frequently used in all subdisciplines of chemistry.

496. Selected Topics in Chemistry (1-4)

Prerequisite: Consent of instructor.

Selected topics in modern chemistry. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

497. Senior Laboratory Project (1-3) Cr/NC I, II, S

Three hours of laboratory per unit.

Prerequisite: Three one-year chemistry courses which have an associated laboratory.

Individual laboratory investigation in analytical, inorganic, organic, or physical chemistry or in biochemistry using advanced laboratory techniques with a final written report of the investigation.

498. Senior Project (1-3) Cr/NC I, II

Prerequisite: Three one-year courses in chemistry.

An individual investigation and report on a problem. Maximum credit six units.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor. Open only to students who have shown ability to do A or B work in chemistry.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

510. Advanced Physical Chemistry (3)

Prerequisite: Chemistry 410B.

Mathematical tools essential to solving problems in chemical thermodynamics, statistical mechanics, chemical kinetics, quantum chemistry and molecular structure and spectroscopy, with applications.

520A-520B. Inorganic Chemistry (3-3) I, II

Prerequisite: Credit or concurrent registration in Chemistry 410B. Chemistry 520A is prerequisite to 520B.

Nature of chemical bond and an advanced systematic study of representative and transition elements and their compounds.

530. Theoretical Organic Chemistry (3)

Prerequisites: Chemistry 410A and 431. Recommended: Credit or concurrent registration in Chemistry 410B.

Electronic and physical properties of organic molecules; structure-reactivity correlations; Electronic structure of molecules (qualitative molecular orbital theory); stereochemistry; and linear free energy relationships.

537. Organic Qualitative Analysis (4)

Two lectures and six hours of laboratory.

Prerequisites: Chemistry 431 and credit or concurrent registration in Chemistry 410A. Recommended: Chemistry 417 and 457.

Chemical, physical, and spectral methods discussed and employed to determine structure of organic compounds. Purification and separation techniques stressed.

550. Instrumental Methods of Chemical Analysis (2) I

Prerequisites: Chemistry 431 and credit or concurrent registration in Chemistry 410B; concurrent registration in Chemistry 457 for undergraduate students only.

Theory and application of those instrumental methods of chemical separation and analysis most frequently used in all subdisciplines of chemistry.

551. Advanced Analytical Chemistry (3) II

Prerequisite: Chemistry 550.

Expanded treatment of instrumental methods for separation and quantification not covered in Chemistry 550. Non-instrumental separations, quantitative organic microanalysis, sampling theory and techniques, reaction rate applications and interpretation of experimental data.

560A-560B. General Biochemistry (3-3)

Prerequisites: Chemistry 431 and credit or concurrent registration in Chemistry 410A.

The structure, function, metabolism, and thermodynamic relationships of chemical entities in living systems. Not open to students with credit in Chemistry 361A-361B.

561. Physical Biochemistry (3)

Prerequisites: Chemistry 201, 431, 361B or 560B; Physics 182B.

Fundamental principles of physical chemistry, including thermodynamics and kinetics as applied to the field of biochemistry.

567. Biochemistry Laboratory (2)

Six hours of laboratory.

Prerequisite: Credit or concurrent registration in Chemistry 361A or 560A.

Theory and practice of procedures used in study of life at molecular level. Includes purification and characterization of enzymes, isolation of cell components, and use of radioactive tracer techniques.

571. Environmental Chemistry (3)

Prerequisites: Chemistry 231 and 251; consent of instructor for all other majors.

Fundamentals of chemistry applied to environmental problems. Chemistry of ecosystems; analysis of natural constituents and pollutants; sampling methods; transport of contaminants; regulations and public policy.

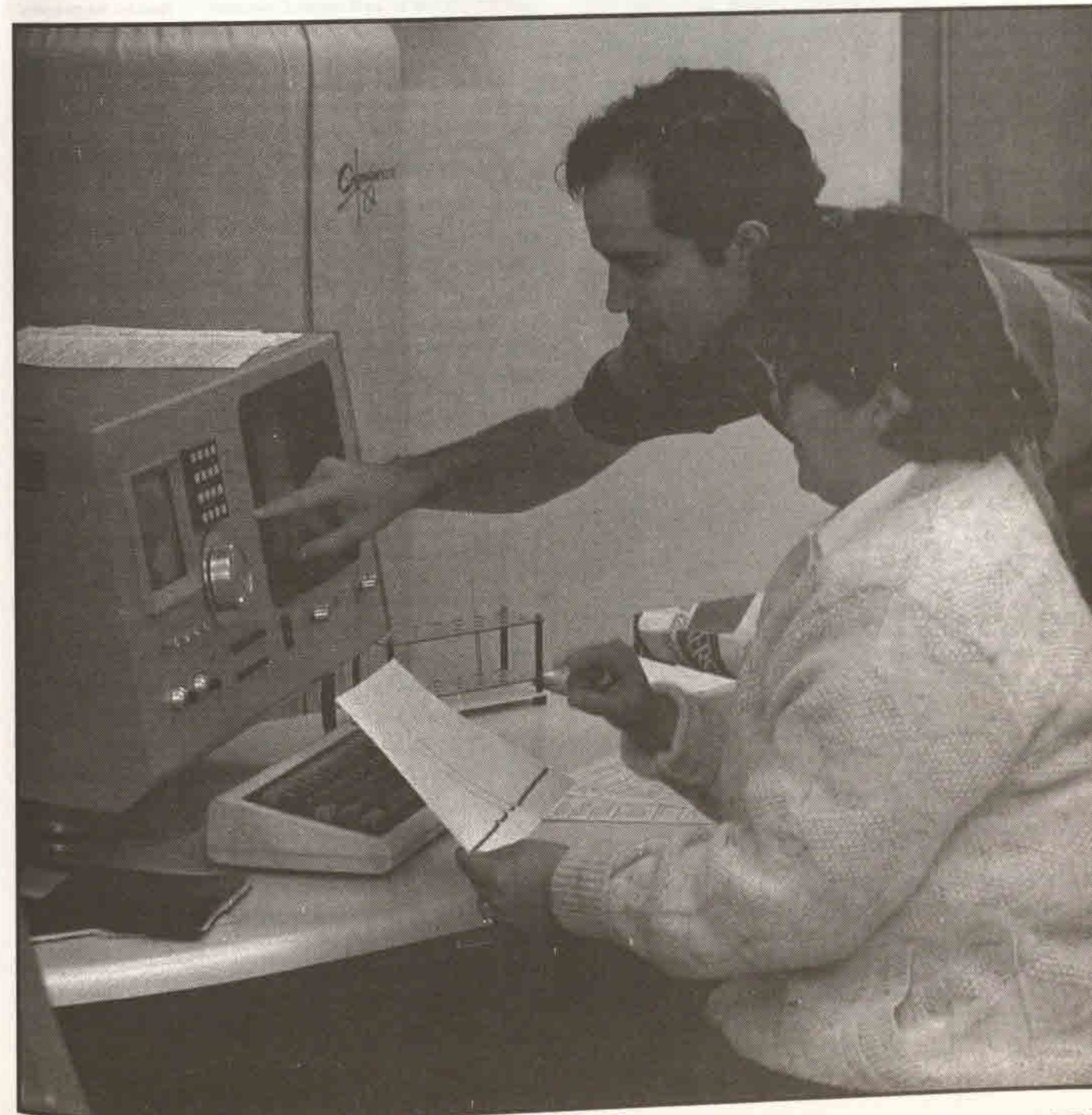
596. Advanced Special Topics in Chemistry (1-3)

Prerequisite: Consent of instructor.

Advanced selected topics in modern chemistry. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to the Graduate Bulletin.



Child and Family Development

OFFICE: Professional Studies and Fine Arts 431
TELEPHONE: (619) 594-5380
FAX: (619) 594-6974

In the College of Professional Studies and Fine Arts

Faculty

Emeritus: Cannon, Hewes, Milne, Price, Somerville
Chair: Deutsch
Professors: Balkwell, Deutsch, Ross
Assistant Professor: Whitney
Lecturers: Mello, Ritblatt, Semlak

Offered by the Department

Master of Science degree in child development.
Major in child development with the B.S. degree in applied arts and sciences.
Minor in child development.
Certificate in family life education.

The Major

The interdisciplinary major in child development draws from many fields of study, including anthropology, biology, psychology, and sociology, and prepares students for a variety of professional specialties. Graduates with competencies in this major find positions in pre-schools, day care centers, schools, hospitals, clinics, residential institutions, counseling centers, mental health centers, public welfare agencies, family service agencies, family planning clinics, community programs, business and industry, and government agencies.

Field experience programs offer students supervised work in community agencies, children's programs, and the Associated Students' Campus Children's Center. The department's Child Study Center focuses on undergraduate and graduate training and research by operating a Campus Children's Center in collaboration with SDSU's Associated Students and San Diego City Schools. Special programs, such as *Art and Music Experiences for Children*, often extend service through the summer and allow for creative collaboration across disciplines. All children's programs are mainstreamed and a wide range of special needs and at-risk populations are served by a full inclusion program.

The child development degree also provides a flexible curriculum base for continuation into graduate programs in child development or family relations; in child, family, and marriage counseling; in social work; in psychology, law, or sociology. Also available are programs leading to the multiple subject and single subject teaching credentials, the community college teaching credential, and a specialist credential in either special education or early childhood education.

The child development minor is an important adjunct for students in areas such as anthropology, education, psychology, recreation, social work, and sociology.

Child Development Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 08231)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Child and Family Development 135, 270, 271, 275; Biology 100; Psychology 101; Sociology 101; Psychology 270 or Sociology 201. (24 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 40 upper division units to include Child and Family Development 335, 370, 371, 375, 376L (1 unit), 436, 478, 590, 597 (1 unit), 597L (2 units); completion of 15 units in any one of the five specializations listed below.

Child Development Specialist: Child and Family Development 476, 477, 537, 570, 577.*

Family Development Specialist: Child and Family Development 437, 536, 578, and six units selected with the approval of the program adviser.

General Child and Family Development: Fifteen units selected with the approval of the program adviser.

Life-Span Development Specialist: Child and Family Development 381, 570, 578, and six units selected with the approval of the program adviser.

Adult Development Specialist: Child and Family Development 381, 578, and nine units selected from Gerontology 350, 360, 370, and 520.

* With appropriate work experience fulfills requirements for the Regular Children's Center Instructional Permit; with completion of the B.S., two years of preschool or child care teaching experience, and satisfactory completion of the California Basic Educational Skills Test (CBEST) fulfills requirements for the Children's Center Supervision Permit. To request forms for these permits contact the Commission for Teacher Credentialing, P.O. Box 94470, Sacramento, CA 94244-2700 or the Credentials Office, San Diego County Office of Education, 6401 Linda Vista Road, San Diego, CA 92111, (619) 292-3581.

Child Development Minor

The minor in child development consists of a minimum of 18 units to include Child and Family Development 270+, 271; and 12 units selected from Child and Family Development 370, 371, 375, 376L (1 unit), 436, 437, 476, 477, 478, 537, 570+, 577, 590, 597, 597L; Psychology 432+. No more than six of the 18 units may be in experiential courses.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

+ Indicates course with prerequisites not included in list of courses acceptable for minor

Family Life Education Certificate

The purpose of this certificate program is to prepare students for careers in family life education. The program is designed for individuals working on degrees in child development and health science. It also provides a self-improvement opportunity for people seeking employment, promotion, or upward mobility on the job who are not enrolled in degree programs.

Awarding of the certificate requires completion of an approved pattern of five courses (15 units) with a grade of "C" or better in each of the courses to include Child and Family Development 135, 270+ or 371+ or Psychology 330+; Biology 307; Community Health Education 475; and Psychology 455. The course offerings under this program meet the criteria for training and standards of the American Association of Sex Educators and Counselors.

Child and Family Development 135, 270 or 371 (six units) are applicable to the child development major. Community Health Education 475 and Psychology 455 (six units) are applicable to the health science major. Courses in the certificate may not be counted toward the minor.

For further information regarding the Family Life Education Certificate program, consult Dr. Francine Deutsch, Department of Child and Family Development.

+ Indicates course with prerequisites not included in requirements listed above.

Courses

LOWER DIVISION COURSES

135. Principles of Family Development (3) I, II

Intimacy, compatibility, conflict, and communication in relationship formation and adjustment. (Formerly numbered Family Studies and Consumer Sciences 135.)

270. Principles of Child Development (3) I, II

Prerequisites: Psychology 101 and Sociology 101.
Child from conception through adolescence; emphasis on biological, cognitive, and psychosocial development. Directed observations of children required. (Formerly numbered Family Studies and Consumer Sciences 270.)

271. Human Development: Early Childhood (3) I, II

Two lectures and three hours of laboratory.
Prerequisite: Child and Family Development 270. **Proof of completion of prerequisite required:** Copy of transcript.
Physical, social, emotional, and intellectual development of the young child with applications for guidance. Observations required. Multiple methods of recording individual and group behavior. (Formerly numbered Family Studies and Consumer Sciences 271.)

275. Developmentally Appropriate Practices (3)

Two lectures and two hours of activity.
Prerequisite: Child and Family Development 270.
Design, implementation, and evaluation of developmentally appropriate practices for children and families.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

335. Interaction in Families (3) I, II

Prerequisite: Child and Family Development 135.
Family interaction patterns throughout the life cycle in a multicultural society. Emphasis on theories, research findings, and family practices. (Formerly numbered Family Studies and Consumer Sciences 335.)

370. Research, Assessment, and Evaluation of Children and Families (3)

Prerequisites: Child and Family Development 270 and 271. **Proof of completion of prerequisites required:** Copy of transcript.

Methods for measuring child, caregiver, and family behavior. Evaluation of reliability and validity. Includes research design, sampling techniques, data collection strategies, and values/ethics. (Formerly numbered Family Studies and Consumer Sciences 370.)

371. Human Development: Middle Childhood and Adolescence (3)

Prerequisite: Child and Family Development 270.
Physical, social, emotional, and intellectual development of children during middle childhood and adolescence. Emphasis on parent, sibling, and peer relationships. Prevention and correction of developmental difficulties. (Formerly numbered Family Studies and Consumer Sciences 371.)

375. Child Development Programs (3) I, II

Prerequisites: Child and Family Development 271; concurrent registration in Child and Family Development 376L for one unit only. **Proof of completion of prerequisites required:** Copy of transcript.

Program models in early childhood education. Communication techniques, basic skills and strategies in working with young children. Development, implementation and evaluation of an appropriate curriculum and environment. (Formerly numbered Family Studies and Consumer Sciences 375.)

376L. Laboratory Experiences in the Child Study Center (1-3)

Three hours of laboratory for each unit of credit.
Prerequisite: First unit requires concurrent registration in Child and Family Development 375. Application to take additional units requires prior consent of instructor.

Directed experiences with children up to ages five in a mainstreamed setting. Designing and implementing developmentally appropriate activities. May be repeated, at advanced level, with consent of instructor. Maximum credit three units. (Formerly numbered Family Studies and Consumer Sciences 376A, 376B.)

381. Human Development: Adult Development and Aging (3)

Prerequisites: Psychology 101 and Sociology 101.
Biological, cognitive, and psycho-social processes of adult development and aging. Emphasis on a life-span developmental perspective, the family context, intervention, and social policy. (Formerly numbered Family Studies and Consumer Sciences 381.)

436. The Individual, Family, and Society (3)

Prerequisites: Psychology 101 and Sociology 101.
Individual and family needs and the social institutions and agencies attempting to meet these needs. Social issues, service programs, program analyses, and program effectiveness are emphasized. (Formerly numbered Family Studies and Consumer Sciences 436.)

437. Violence in Families (3)

Prerequisite: Child and Family Development 335. **Proof of completion of prerequisite required:** Copy of transcript.
Theories and research findings to examine abusive interactions in families. Trends, preventive measures, and treatment techniques. (Formerly numbered Family Studies and Consumer Sciences 437.)

476. Development of Creative Behavior in Young Children (3) I, II

Prerequisite: Child and Family Development 375. **Proof of completion of prerequisite required:** Copy of transcript.
Techniques for encouraging creative behavior in young children: philosophical and empirical approaches. (Formerly numbered Family Studies and Consumer Sciences 476.)

477. Administration of Child Development Programs (3) I

Prerequisite: Child and Family Development 375. **Proof of completion of prerequisite required:** Copy of transcript.
Programs for young children: design, implementation, and evaluation. Research applications and legal requirements for public and private sectors. (Formerly numbered Family Studies and Consumer Sciences 477.)

Africana Studies

In the College of Arts and Letters

Faculty

Chair: Cornwell
Professors: Chambers, Kornweibel
Associate Professors: Cornwell, Weber
Assistant Professor: Toombs

Offered by the Department

Major in Afro-American studies with the B.A. degree in liberal arts and sciences.

Minor in Afro-American studies.

The Major

Africana studies offers a broad, interdisciplinary program. The curriculum is designed to study a variety of subjects pertaining to the Africana experience. It is concerned with strengthening links between the needs of black students and the black community, and developing frameworks for social change and the struggle for black dignity. It seeks, in short, to provide a total educational experience of the Africana culture. The courses offered in Africana studies are available to anyone who is interested.

The major provides excellent preparation for the fields of law, government, foreign service, business administration, research, consulting, librarianship, counseling, program development, program design, program analysis, urbanology, and writing, to name a few, as well as the more traditional Africana studies profession of teaching.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Afro-American Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22111)

All candidates for the degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in Africana studies courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Africana Studies 101A, 101B, 102, 170A; 170B or 250. (15 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

OFFICE: Adams Humanities 3129

TELEPHONE: (619) 594-6531

Major. A minimum of 24 upper division units to include twelve units selected from one of the following areas and six units from each of the two remaining areas: Up to six units, with appropriate content, of 496 and 499 in any combination may be applied to an area of specialization with the approval of the department chair.

Sociology and Psychology: Africana Studies 330, 331, 341, 360*, 445, 448, 451, 452, 453.

Humanities: Africana Studies 350 (3 units applicable to major), 363, 365, 385, 460, 461, 462, 463, 480, 485.

History and Political Science: Africana Studies 320, 321, 322, 325, 380, 420, 470, 471A, 471B, 472.

* Additional prerequisite required.

Afro-American Studies Minor

The minor in Afro-American studies consists of a minimum of 18 units to include six units selected from the courses for preparation for the major, six units selected from one of the three areas of the major, and three units from each of the remaining areas.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

101A. Introduction to Africana Studies: Social and Behavioral Sciences (3)

Interdisciplinary introduction of African American thought and behavior. Subject areas include social systems, economic empowerment, self development, family dynamics, use of power, cognitive styles, interethnic communication and international relations. Review of relevant literature in social and behavioral sciences. Not open to students with credit in Afro-American Studies 101.

101B. Introduction to Africana Studies: Humanities (3)

Interdisciplinary introduction to African American history, literature, other arts and religion. Subject areas include methodology and theoretical perspectives of Africana studies. Not open to students with credit in Afro-American Studies 101.

102. Afro-American Lifestyles (3) I, II

Afro-American lifestyles in the past, present, and future. Examination of contemporary problems, their roots and their effects on twentieth century America.

120. Composition (3) I, II

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements. (See the Graduation Requirements section of catalog.) **Proof of completion of prerequisites required:** Copy of EPT or competency scores or verification of exemption; proof of Cr in Rhetoric and Writing 92A or 92B or 97A or 97B, or notification from the Department of Rhetoric and Writing Studies.

Designed to develop and enhance composition and reading skills. Focus on writing skills that contribute to academic growth and development. Not open to students with credit in English 100 or higher-numbered composition or creative writing course or Linguistics 100 or Mexican American Studies 111B.

140. Oral Communication (3) I, II

Practice in speaking, critical listening, reasoning and organizing. Theory and techniques of communications used to evaluate the effect they have on the lives of Blacks and others. Not open to students with credit in Mexican American Studies 111A or Speech Communication 103.

170A-170B. Afro-American History (3-3) I, II

American history from a Black perspective. These courses satisfy the graduation requirement in American Institutions.

200. Intermediate Expository Writing and Research Fundamentals (3)

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements; and Africana Studies 120 or Linguistics 100 or Mexican American Studies 111B or Rhetoric and Writing 100. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Development of intermediate expository writing skills and application of practical research principles.

250. Psychology of Blackness (3)

Facts, principles, and concepts which are basic to understanding human behavior. An analysis of the psychological motivations and behavioral responses of and toward Afro-Americans.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

320. Politics and Economics of Black Urban Development (3)

Prerequisite: Africana Studies 101A or completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Political economy of urban growth, development, and redevelopment examined in historical and contemporary contexts. Focus on race and class inequality and conflict; effectiveness of public and private sector decisions and programs; evolution of African American urban poor and their communities. (Formerly numbered Afro-American Studies 220.)

321. Black Political Participation in America (3)

Prerequisites: Africana Studies 101A or 102 or 170A or 170B. Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Afro-American political life and development in the United States. Interaction between Afro-Americans and various actors, institution processes, and policies of the American system of politics and governance.

322. African American Political Thought (3)

Prerequisite: Africana Studies 101A or completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Political and social thought underlying principles, goals, strategies developed by African Americans in struggle for social development and human rights. Focus on twentieth century thought. (Formerly numbered Afro-American Studies 221.)

325. Public Policy and Afro-American Community (3) II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Impact of public policy on Afro-American community: theory and practice of policy formulation, implementation, evaluation, and modification for specific problems in Afro-American community; roles of governmental officials; administrative arrangements; organizational processes; and community groups in policy making.

330. Black Child Development (3) II

Attitudes, needs and problems of the Afro-American child with emphasis on new approaches and insights into the development of positive changes for the child's growth and development.

331. The Black Family (3) I

Structure and functions of the Black family in contemporary American society.

332. Black Women: Myth and Reality (3)

Prerequisites: Africana Studies 101A or 101B and 102.

Images of Black women in America and how those images have been distorted.

341. Cultural Patterns and African American Identity (3)

Prerequisites: Africana Studies 101A or completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Impact of social institutions on African American identity and cultural patterns. (Formerly numbered Afro-American Studies 231.)

350. The Black Total Theatrical Experience (3) I, II

Six hours of activity.

A "living performing arts museum" that utilizes folktales, literature, music, Africanisms, folk myths and history to artistically reflect various cultural and historical aspects of Black life. Performances are important aspect of course. Maximum credit six units.

360. Communications and Community Action (3)

Prerequisite: Africana Studies 140 (field assignments are a major part of this course).

Application of the basic theories of communication through field projects. Study of the communication problems that exist between sociopolitical groups and the media.

362. Rhetoric of Black America (3)

Prerequisite: Three units in Afro-American history and communications.

Rhetoric of Black Americans from David Walker to the present, the role rhetoric has played in the history of Black people and an analysis of the Black audience in terms of the Black experience.

363. Sociocultural Analysis of Black Languages (3)

Prerequisite: Three units in Africana Studies.

Social and cultural functions of Black languages, verbal and non-verbal, in Afro-American life, and their profound impact on larger society. Also, a probe into issues concerning validity of Black English.

365. African American Literature (3)

Prerequisite: Africana Studies 101B or completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Early and contemporary writing by African American authors. Issues of literary form, canon formation and sociopolitical impact of the literature upon African American culture. (Formerly numbered Afro-American Studies 260.)

380. Blacks in the American Justice System (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Interpretation and application of constitutional principles and judicial decisions to political and social problems faced by Afro-Americans.

385. African American Music (3)

Prerequisite: Africana Studies 101B or completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

African American music from its African roots to present. Consideration of musical styles, events, significant contributors as well as role of sociocultural values in development of music (Formerly numbered Afro-American Studies 180.)

420. Afro-Americans and the Politics of Urban Education (3)

Prerequisites: Africana Studies 101A or 102. Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Struggle against Afro-American subordination and complexities, contradictions, and dilemmas of formulating and implementing quality education and equal opportunity policies. Interaction between politics and education during eras of machine, reform, and postreform politics.

445. Ethnicity and Social Psychology (3)

Prerequisites: Africana Studies 101A or 250. Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Analysis of major social psychological theories specifically focusing on how these theories relate to minority attitude/value formation and group behavior. Strategies for resolving social issues.

448. Black and Non-Black Interpersonal Relations (3)

Cognitive and experiential examination of contemporary issues around Black and non-Black interpersonal relations. Authenticity in relationships, interracial trust, personal development, conflict resolution, and proactive belief systems. Central aim to assist Blacks and non-Blacks to facilitate communication.

451. Black Consumer Psychology (3)

Prerequisite: Africana Studies 250.

Attitude values and decision making of Black people as consumers. Laws and techniques of manipulating consumers.

452. Race Relations Strategies (3)

Prerequisite: Africana Studies 101A or 102 or 250.

Systematic inquiry into contemporary strategies and systems employed to ease racial tensions. Trends and approaches in military, religious, economic, educational, and other social institutions examined, focusing on those that offer most promise in terms of facilitating racial harmony.

453. Issues in Mental Health: A Multicultural Perspective (3)

Prerequisite: Africana Studies 250.

Examination of multicultural mental health issues. Institutionalization, treatment, social policy funding, prevention, insurance, and community programs will be covered. Relevant research literature will be examined.

460. Black Images in Western Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Study of how the image of the Black has been portrayed in Western (white) literature and the attitudes and images of non-Black writers towards Blacks.

461. Studies in African American Literature (3)

Prerequisite: Africana Studies 101B.

Focused studies in African American literature. Analysis of themes, techniques, etc., in fiction, poetry and/or drama.

462. The Harlem Renaissance (3)

Black literature of the 1920s from literary, historical, sociological and cultural perspectives.

463. Black Literatures of the World (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Afro-American literature in context of world literatures by Blacks. Cross-cultural influences between Africa and the Americas.

464. Caribbean Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Political, religious, and musical paradigms in writing from 1900 to present. Politico-religious movements and related art forms (Rastafarian Reggae, Dub Poetry).

470. Comparative History: Afro-American and African Heritage (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Conceptual framework of African history and a comparative study of Afro-American institutions.

471A. Black History, 1492-1877 (3) I

Afro-Americanization and African survivals in the U.S.; origins and development of slavery; growth of free Black communities; anti-slavery movements and Black nationalism; slavery's end and dawn of freedom.

471B. Twentieth Century Black History (3) II

History of social movements and institutions from 1890 to the present. Focus on both leadership and life of the masses.

472. Slavery (3)

Prerequisites: Africana Studies 101A or 170A or History 100 or 105 or 110A or 115A. Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

History of enslavement of Blacks in the new world; contrasted to patterns of slavery in African societies and in the ancient Mediterranean world. Further contrasts to forms of modern group oppression, such as Nazi concentration camps.

480. History of Afro-American Jazz (3)

Prerequisite: Africana Studies 101B.

Historical development of jazz from its beginnings to the present, based on the ability to identify people, discuss musical styles and events, and to relate these factors to the life of the times.

485. Blacks in the Arts (3)

Prerequisite: Africana Studies 101B or 102.

Academic and artistic perspectives on Black participation in and contributions to the creative and performing arts. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

American Indian Studies

In the College of Arts and Letters

OFFICE: Adams Humanities 3104

TELEPHONE: (619) 594-6991

Faculty

Chair: Parker

Associate Professors: Kilpatrick, Parker

Adjunct: Cooper, Cox, Johnson, Rodriguez, Shippek, Watson, White

Offered by the Department

Minor in American Indian studies.

Courses in American Indian studies.

Major work in American Indian studies is not offered.

The Minor

A minor in American Indian studies provides students with a liberal education which focuses on cultural diversity. Individuals will attain competency in a broad understanding of the human condition which will relate closely to the areas of public relations, cultural pluralism, and race relations. Students pursuing majors in mass media, politics, journalism, and education will find that a minor in American Indian studies opens a new spectrum of human understanding and critical analysis of professional life.

The American Indian studies program focuses on individual elements that comprise the native American cultures. Using literature, art, history and politics as touchstones, students come to understand the individual as well as tribal character of the Indian peoples. The academic area also draws comparisons between American Indian life and the life of other members of American society.

Career opportunities for graduates include jobs in business, education, government, politics, social sciences, and health and human services. Students have also found positions in programs for Indian tribes and reservations. Federal agencies also seek people with knowledge about and experience with American Indian people and their culture. Agencies include the Bureau of Indian Affairs, the Indian Health Services, the Bureau of Land Management, and the U.S. Forestry Services.

American Indian Studies Minor

The minor in American Indian studies consists of a minimum of 15 units to include American Indian Studies 110; nine of the 15 units must be in upper division courses selected from American Indian studies or other appropriate departments (e.g., anthropology or history) in consultation with the departmental adviser.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses**LOWER DIVISION COURSES****110. American Indian Heritage (3) I, II**

Major American Indian themes, beliefs, and practices and their impact on Western civilization through institutions, art, literature, philosophy, and religion.

265. American Indian Art (3)

American Indian as a creative person and artistic products from earliest examples to present surveyed through cultural elements affecting symbols, material, and media. Diverse forces generating forms which have become tradition will be central to the study.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES

(Intended for Undergraduates)

300. American Indian Oral Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Pre-twentieth century American Indian oral and symbolic traditions including creation and origin legends, coyote stories, ceremonial songs, oratory, and memoirs. (Formerly numbered American Indian Studies 200.)

303. American Indian Women in American Society (3)

Historical and contemporary analysis of the role of Indian women in both Indian and dominant society.

320. American Indians in Contemporary Society (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Sociological understanding of the American Indian groups in contemporary society with emphasis on the relationship to dominant society and why the focus has been on Indians as social problems.

400. The American Indian Political Experience (3) I

Social and political response to dominant group policies by the American Indian as compared to other minority groups.

420. Indian Peoples of California (3) I

Indian peoples of California. Their histories and cultures from oral traditions to contemporary issues. Focus on selected Indian tribes and communities.

425. Indians of the Plains (3) II

Indian peoples of the Plains. Their histories and cultures from oral traditions to contemporary issues. Focus on selected Indian tribes and communities.

430. American Indian Poetry and Fiction (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Contemporary American Indian poetry and fiction explored in works of Welch, Ortiz, Momaday, Silko, Deloria, Allen, Erdich, and others.

435. Indians Through Film and Television (3) II

Images of Indians in film and television. Impact of movies and television on popular concepts of Indians. Films viewed in class.

440. American Indian History (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Historical analysis of Indian-White contact. Emphasis on the impact of historical events upon the various cultures.

470. Roots of Indian Tradition (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

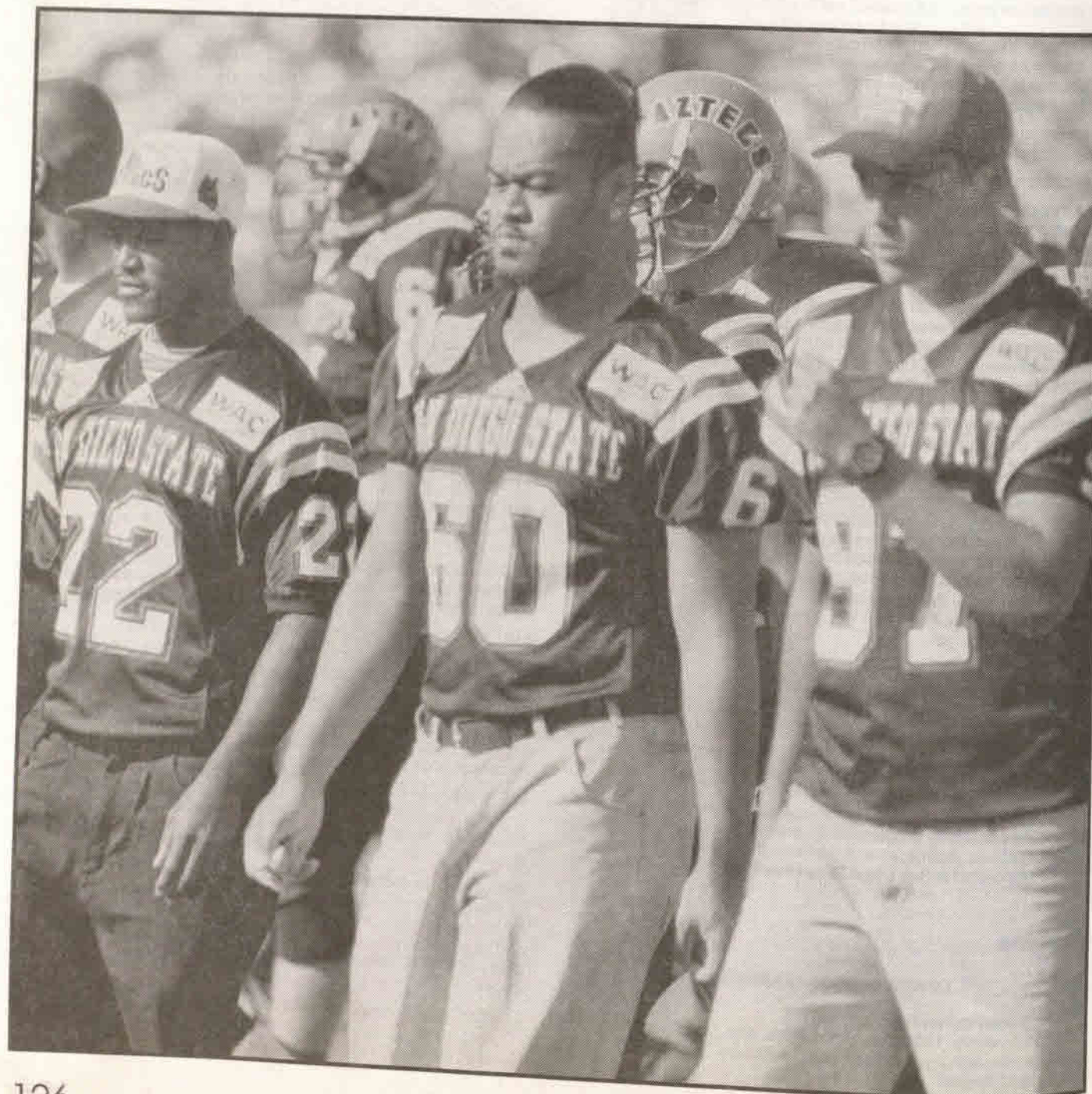
Spirits, prophecies, and renewals of the Indian way compared through symbols and ceremony. Religions will be surveyed as they have been influenced by foreign elements and philosophies. Influences on values and tribalism as reflected through symbols and other measures.

496. Topics in American Indian Studies (1-3)

An undergraduate seminar. See Class Schedule for specific content. Maximum credit six units. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-4)

Prerequisite: Consent of instructor. Individual study. Maximum credit six units.



Faculty

The American studies program is administered through the American Studies Committee. Faculty assigned to teach courses in American studies are drawn from departments in the College of Arts and Letters.

Chair: DuFault (History)

Adviser: Gregory (English)

Committee: Colquitt (English), Deutsch (Child and Family Development), Donahue (Linguistics), DuFault (History), Ford (Geography), Gregory (English), Griswold (English), Huckle (Women's Studies), Koolish (English), Kornfeld (History), Kornweibel (Africana Studies), Kushner (History), Lewin (Political Science), McCaffery (English and Comparative Literature), Meadows (Music), Real (Telecommunications and Film), Samovar (Speech Communication), Strom (Teacher Education), Vartanian (History), Wall (English)

Offered by American Studies

Major in American studies with the B.A. degree in liberal arts and sciences.

Minor in American studies.

The Major

American studies is an interdisciplinary program designed to bridge the division of knowledge into discrete disciplines. Each of the four program clusters combines American studies core courses, which relate materials and methods from various disciplines, with upper division courses from several disciplines. The courses are selected to focus on and bring into interrelation one group of American people, one social or cultural process, one place and one period.

The special integrating work in the student's major program is a series of special studies under the direction of members of the American studies faculty in which the student produces a paper or project interrelating the four focuses of his or her studies. The paper or project must make use of two or more disciplines' analyses of the same material. Because American studies finds its center in the concept of culture, the paper or project must deal at least in part with the cultural connections among the four subjects of focus.

With the approval of the American studies adviser, the student may design a program cluster comparable in format to those listed in this catalog but tailored to his or her individual interests.

The minor in American studies is open to all students and is of special interest to international students. The coursework is intended to provide a broad perspective of the American culture - the heritage, the ideas and dreams, and the failures as well as accomplishments.

The flexibility of this interdisciplinary major allows graduates to enter a broad range of career areas, including journalism, law, law enforcement, environmental planning, teaching, archival work, museum curatorship, international business, librarianship or government service. Competencies gained by the American studies major provide a sound basis for entering graduate study in a variety of areas. Many universities have graduate programs in American studies. Graduate work may be required for entrance into a specific career field.

OFFICE: Adams Humanities 4207

TELEPHONE: (619) 594-5262

American Studies

In the College of Arts and Letters

Business and teaching professions in foreign countries welcome American studies majors who can help them understand the way business and social life is conducted in the United States.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

American Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 03131)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Twelve units selected from Anthropology 102, English 250A-250B (three or six units), History 110A-110B (three or six units). (12 units)

Students should note that a number of the upper division required and recommended courses listed below have lower division prerequisites, but these prerequisites do not constitute requirements per se for the completion of the major.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. History 430W, English 508W, 581W, or Rhetoric and Writing 500W, or Sociology 396W with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include American Studies 499, 501, 580; and nine courses from one of the following clusters **or a specially designed cluster.**

In the selected cluster, the student will normally take three courses in one area and two courses in each of three other areas. However, the student must take at least one course in each area. The student may take no more than three courses in one discipline on the major program. The student must file with the Office of Admissions and Records a master plan approved by the adviser for the American studies curriculum.

American Communication

People: Decision Makers

Economics 370; History 496; Management 356; Political Science 335, 422, 436, 531; Public Administration 520; Sociology 531; Women's Studies 530.

Process: Communications

No more than one course in each discipline.
Africana Studies 360, 362, 461, 480; American Indian Studies 430; Art 558; English 524, 525; Journalism 408, 500, 502, 503; Mexican American Studies 335; Music 351D; Political Science 426; Psychology 340; Sociology 456; Speech Communication 475.

Place: United States

Geography 321; History 534, 535A, 535B, 546A, 546B, 547A, 547B, 548A, 548B.

Period: Nuclear Age

Two of the following:
English 525; History 536; Natural Science 333; Women's Studies 530.

Special Study: American Studies 499.

Cultural Institutions and Artifacts

People: The Family

Africana Studies 331; Family Studies and Consumer Sciences 436; Mexican American Studies 320; Sociology 522.

Process: Material Culture

Anthropology 302; Art 347, 550; English 526 (when offered as American Literature and American Art); Geography 354, 555; Natural Science 333.

Place: The Southwest

No more than one course in each discipline.
History 537B, 538, 541A, 541B; Mexican American Studies 320, 335, 350A, 350B, 376.

Period: Colonial

No more than one course in each discipline.
Anthropology 441, 446; History 530, 531, 548A.

Special Study: American Studies 499.

Cultural Pluralism

People: Ethnic Community

Sociology 355 and one of the following: Africana Studies 471B; American Indian Studies 440; Anthropology 446; Mexican American Studies 320 or 350B.

Process: Development of Identity

Africana Studies 362 or 461; Mexican American Studies 335; Music 351; Political Science 531; Sociology 430 or 457; Women's Studies 352 or 553 (when American in content).

Place: The City

Economics 458; Geography 354 or 555; Mexican American Studies 303; Political Science 422; Public Administration 512; Sociology 557.

Period: 1840 to the Present

No more than one course in each discipline.
English 523, 524, 525, 527, 528 (when appropriate); History 534, 535A, 541B, 548B; Women's Studies 341B or 530.

Special Study: American Studies 499.

Majority American Goals and Values

People: The Middle Class

Art 560; History 548B; Political Science 531; Sociology 531; Women's Studies 530.

Process: Tradition and Change in the Evolution of American Goals and Values

No more than one course in each discipline.
Anthropology 444; Economics 474; English 525; History 435, 545A, 545B, 548A, 548B; Management 356, 456; Political Science 334, 335, 345, 346, 348; Sociology 433, 456, 457, 537.

Place: United States

English 523, 524, 525, 527; Geography 370; History 540, 546B, 547A, 547B; Political Science 305.

Period: Twentieth Century

Economics 338; English 525; History 310B, 535A, 535B, 536; Management 356; Music 351D; Women's Studies 341B.

Special Study: American Studies 499.

American Studies Minor

The minor in American studies consists of a minimum of 18 units to include American Studies 501 (Study of American Culture), and six units selected from History 546A-546B or 547A-547B or 548A-548B; and nine units selected from the courses listed below—six units from one grouping and three from the other, with no more than six units from any one department's or program's offerings:

Humanities: American Studies 580; Art 560; English 522, 523.

Social Sciences: Anthropology 444; Economics 338; Geography 354; Political Science 305; Sociology 433.

With the consent of the American studies adviser, six units in courses not listed here may be included in the student's program. Courses in the minor may not be counted towards the major but may be used to satisfy preparation for the major and general education requirements. A minimum of six upper division units must be completed at San Diego State University. In designing their American studies minor program, students may not include courses drawn from their major department.

Courses

LOWER DIVISION COURSE

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES

(Intended for Undergraduates)

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study in interdisciplinary humanities and social sciences work. Maximum credit six units.

UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)

501. Study of American Culture (3) II

Prerequisite: Major in American studies; open to other students with interdisciplinary interests.

American studies as a discipline, the important methods of the field, and variety of materials for interdisciplinary study.

580. Topics in American Studies (1-3) I, II

Topics dealing with cultural images and myths, social protest, folklore; themes focusing upon fear, alienation and nationalism; problems around racism, minorities and counter-cultures. See Class Schedule for specific content. May be repeated once with new content; and with the approval of the adviser, more than once by American studies majors. Maximum credit six units applicable to a master's degree in American studies.

OFFICE: Storm Hall 143B

TELEPHONE: (619) 594-5527

Faculty

Emeritus: Anderson, Goldkind, Rogers, Rollefson, Watson
Chair: Himes
Professors: Ball, Greenfeld, Henry, Himes, Leach, Lippold, Pendleton, Rohrl, Whitney
Associate Professor: Moore
Assistant Professor: Sonek

Offered by the Department

Master of Arts degree in anthropology.
Major in anthropology with the B.A. degree in liberal arts and sciences.
Minor in anthropology.

The Major

Anthropology is the far-reaching study of human beings as both biological and culturally adaptive organisms. Anthropologists study the physical and mental characteristics, social relationships, institutions, customs, myths, and geographic distribution of human populations.

The anthropology major provides a broad background for the various specialized areas in the field, such as archaeology, the analysis of past cultures; cultural anthropology, the study of cultural similarities and differences in contemporary societies; linguistics, the evaluation of cultural differences in communication; and physical anthropology, the analysis of biological characteristics of past and present populations. Elective courses provide information on the newest developments in the field and give the anthropology graduate an understanding of human nature in the context of past and present environmental influences.

Employment opportunities for anthropology graduates include work in senior citizen and minority agencies, the National Park Service, state archaeological services, marketing, environmental impact projects, urban affairs, state and local governmental agencies, and business.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser during the first semester after declaration or change of major.

Anthropology Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22021)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in anthropology courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Anthropology 101, 102. (6 units)
Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or one of the approved writing courses with a grade of C (2.0) or better.

Anthropology

In the College of Arts and Letters

Major. A minimum of 33 upper division units in Anthropology to include Anthropology 301, 302, 303, 304; and 21 additional units of upper division courses in anthropology. The student will file with the Office of Admissions and Records a master plan approved by the adviser for the anthropology curriculum.

Anthropology Minor

The minor in anthropology consists of a minimum of 15 units in anthropology, 9 to 12 units of which must be in upper division courses. The 15 units must be selected from one of the following areas:

General: Anthropology 101, 102 and nine units selected from 301, 302, 303, 304, 580.

Archaeology: Anthropology 101 and 302 and nine units selected from Anthropology 471, 472, 481, 483, 496 (if appropriate), 499, 561, 580.

Biocultural: Anthropology 101 and 301 and nine units selected from Anthropology 406, 483, 496 (if appropriate), 499, 500, 501, 503, 504, 505, 506, 507, 508, 509, 580.

Linguistics: Anthropology 102, 304 and 410 and six units selected from Anthropology 303, 350, 496 (if appropriate), 499, 580, 582, 583.

Sociocultural: Anthropology 102 and 350 and nine units selected from Anthropology 303, 424, 430, 439, 496 (if appropriate), 520, 529, 580.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

101. Human Biocultural Origins (3) I, II
(CAN ANTH 2)

Human's place in nature; fossil evidence for hominid evolution; evolutionary theory; racial, clinal and genetic variability; relationship of physical and cultural adaptations; the rise of civilization.

102. Introduction to Cultural Anthropology (3) I, II
(CAN ANTH 4)

May be taken before Anthropology 101.
Human's relationship to the environment; types of preliterate society; systems of social organization, politics, economics, religion, and language.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES

(Intended for Undergraduates)

301. Principles of Physical Anthropology (3) I, II

Two lectures and three hours of laboratory.
Prerequisite: Anthropology 101.
Primate comparative anatomy and human paleontology. Physical measurement of the living subject and skeletal specimens. The statistical treatment of data in physical anthropology. Applications of physical anthropology in industry and medicolegal problems.

302. Principles of Archaeology (3) I, II

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 101.

History, method, and theory of archaeological data acquisition and interpretation. Methods of data recovery and analysis suitable to resolution of historical and processual questions. Archaeological examples from a worldwide sample of prehistoric and historic societies.

303. History of Ethnological Theory (3) I, II

Prerequisite: Anthropology 102.

Development of theories which explain nature of culture and cultural variation. Applications of theory of culture to field methods in ethnography and interpretation of ethnographic findings. (Formerly numbered Anthropology 305.)

304. Principles of Anthropological Linguistics (3) I, II

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 102.

The structural nature of language. How languages differ, change and influence each other. The language families of the world. The significance of language for human social life in a variety of cultures.

312. Archaeological Field Techniques (3) I, II, S

Six hours of activity.

Prerequisite: Anthropology 302.

Archaeological excavation of significant sites in San Diego. Techniques of excavation, recording, and surveying.

349. Roots of Civilizations (3)

Prerequisite: Open only to upper division students who have completed the General Education requirement in Foundations II.C., Humanities.

Origins and major attributes common to civilizations. Form and function of fundamental characteristics in different civilizations. Examples taken from Africa, Asia, the Near East and the New World.

350. World Ethnography (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Cultural patterns of representative peoples. Industries, arts, social organization and supernaturalism considered with view to environmental adjustment, historical development and functional interrelation. Ethnological theories reviewed and applied in interpreting illustrative societies.

402. Dynamics of Biocultural Diversity (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Interaction of biology and culture in human populations. Relating genetic and cultural processes to the changes in human populations over time.

406. Nonhuman Primates (3)

Prerequisite: Anthropology 101.

Basic aspects of nonhuman primates, geographical distribution, ecology (habitat, diet), external and internal morphology, locomotion and social behavior, reproduction and development.

410. Language in Culture (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Survey of anthropological interests in the study of language and of linguistic interests in the sociocultural context of language.

422. Music and Culture (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.C., Humanities.

How the forms, functions and meanings of music vary crossculturally. Understanding a society's music historically, holistically and

experientially, with emphasis on non-Western music. Universals of music and music use. Ethnological theories of music and music change.

424. Primitive Religion (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Beliefs and ritual of primitive man. Magic and religion. Forms of animism and polytheism. Primitive mentality and the supernatural.

430. Anthropology of Law and Dispute Processing (3) I, II

Prerequisite: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Law, social control, and dispute processing studied in sociocultural context. Law in Western society compared with "law-ways" in a number of traditional or nonindustrialized cultures. Basic concepts and theories about law examined crossculturally.

432. Principles of Personality in Culture (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Principles related to the determinants of human behavior contained in culture. Studies of behavior crossculturally.

439. Cultural Comparisons Through Film (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Principles of cultural anthropology to include signs and proxemics, cultural prerequisites, kinship and social organization, and law and values. Feature and documentary films.

442. Cultures of South America (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Indian cultures in terms of origins, migration, relation to habitat, cultural variation and relevance to contemporary trends. Development of Inca civilization, the effects of the Spanish conquest and its aftermath.

444. American Culture (3)

An "inside-out" view of America. What culture has to do with feeling like an American. Theory and method in anthropology. Approaches include subcultures, American values, and mass media.

445. Ethnology of North America (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Native cultures and the role of environmental and historical factors in North America.

446. Southwestern Ethnology (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Indian cultures of the American Southwest in historic times; ecological adaptations, responses to white contact, adaptations to modern American life.

448. Cultures of Oceania (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

The aboriginal cultures and peoples of Australia, Melanesia, Micronesia, and Polynesia in prehistoric, historic, and modern times.

449. Cultures of Sub-Saharan Africa (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Indigenous peoples and cultures of Africa south of the Sahara. A comparison of cultural traditions, social organization, and modern trends in newly emergent nations of the area.

450. Cultures of India (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Indigenous peoples and cultures of India and contiguous areas of South Asia. The development of cultural traditions, social organization, and modern trends.

452. Japanese Society (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Culture and social organization of Japanese people. Traditional Japanese economic, social, political and religious institutions. Okinawa and overseas Japanese. Recent industrial and urban changes in modern Japan.

453. Cultures of Southeast Asia (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Anthropology 102.

Cultural anthropological study of cultures and societies of mainland (Myanmar, Thailand, Laos, Cambodia, Vietnam) and insular (Malaysia, Indonesia, Philippines) Southeast Asian nations. Traditional economic, social, political, and religious institutions. Recent changes in modern Southeast Asia.

471. Archaeology of North America (3)

Prerequisite: Anthropology 101 or 102.

Origin of the American Indian and survey of the main prehistoric cultures of the North American continent.

472. Southwestern Prehistory (3)

Prerequisite: Anthropology 101 or 102.

Prehistoric Indian cultures in the American Southwest; ecological adaptations and outside cultural influences.

481. Archaeology of East Asia and Oceania (3)

Prerequisite: Anthropology 101 or 102.

Culture change in the areas of China, Siberia, southeast Asia, Australia, Japan and Oceania beginning with the first evidence of hominid activity through ethnohistorically known societies.

483. Health and Nutrition in Antiquity (3)

Prerequisite: Anthropology 101 or 102.

Health and disease patterns in human populations from the earliest times. Analysis of food resources, their impact on health and nutrition of prehistoric peoples.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)

500. Primate Social Behavior (3)

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 101.

Analysis of modes of primate socialization and development of social behavior with emphases on communication, group structure, aggression, and sex. Various methods of analysis and observation practiced utilizing primate collection at the San Diego Zoo.

501. Paleoanthropology (3)

Prerequisite: Anthropology 101. Recommended: Anthropology 301.

Fossil evidence for human evolution. Comparative and functional anatomy of fossil human and infrahuman primates; geochronology, paleoecology, and cultural associations; taxonomic implications.

503. Human Variation (3)

Prerequisite: Anthropology 101.

Morphological, physiological and genetic aspects of human variability. Significance of this diversity in the biological adaptations of human populations.

504. Primate Anatomy (3)

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 101.

Primate anatomy both regional and systemic, including skeletal, cardiovascular and digestive systems; the integument and otolaryngology of primates.

505. Human Osteology (3)

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 101. Recommended: Anthropology 301 and/or Biology 150.

Identification of individual bones and teeth; sex, age, and racial variation; stature reconstruction; continuous and discontinuous morphological variations; paleopathology. Training in observations, measurements, and analyses.

506. Physical Anthropology of the Living (3)

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 101. Recommended: Anthropology 301.

Theory and practice of techniques in measurement and description of biological variations in modern populations.

507. Genetic Markers and Anthropology (3)

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 101.

Use of genetic markers in the study of human populations. Biology of blood groups, serum proteins, enzymes, etc., and analyses of gene frequencies. Significance of genetic markers in evolutionary studies.

508. Medical Anthropology (3)

Prerequisite: Anthropology 101 or 102.

Evolution and ecology of disease, medical beliefs and practices in non-Western cultures, and complexities of health care delivery in pluralistic societies.

509. Culture and Biological Aging (3)

Prerequisite: Anthropology 101 or 102.

Do different cultures age at different rates? Theories of biological aging, genetics of longevity and cultural influences on biological aging. Process of aging and role of the aged in various cultures.

520. Ethnographic Field Methods (3)

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 102.

The problems and techniques of obtaining data in ethnological and Social anthropological field work; preparation, gaining and maintaining rapport, evaluating data, participant observation. A review of literature followed by work with informants.

529. Urban Anthropology (3)

Prerequisites: Anthropology 102 and six upper division units in anthropology.

Urban adaptations of past and present societies. Descriptive topics and applied concerns regarding urban origins, migrations, kinship, family, ethnicity, stratification, and change. Ethnographic examples drawn from Western and non-Western societies.

560. Advanced Archaeological Field Methods (3)

One lecture and six hours of laboratory.
Prerequisite: Anthropology 312.
Advanced projects in excavation and stabilization of ruins; archaeological surveys, laboratory analysis and preparation of reports.

561. Archaeological Laboratory Methods (3)

Two lectures and three hours of laboratory.
Prerequisite: Anthropology 560.
Application of palynology, paleontology and relevant technologies. Individual laboratory research project required.

580. Anthropological Data Analysis (3)

Two lectures and three hours of laboratory.
Prerequisites: Anthropology 101 or 102 and a statistics course.
Recommended: Psychology 270 or Sociology 201.
Computer oriented data analysis class utilizing anthropological data sets. Special section of the SPSS computer workshop is required.

582. Regional Anthropology (3)

Prerequisite: Anthropology 102.
Study of societies in a major geographical region of the world such as Africa, the Arctic, East Asia, Europe, Latin America, the Middle East, North America, Oceania, or South Asia. See Class Schedule for specific content. May be repeated with new content. Maximum credit six units.

583. Topical Anthropology (3)

Prerequisite: Anthropology 102.
Study of a major subdiscipline such as political anthropology, economic anthropology, social anthropology, psychological anthropology, cultural ecology, applied anthropology, anthropological genetics, or environmental archaeology. See Class Schedule for specific content. May be repeated with new content. Maximum credit six units.

GRADUATE COURSES
Refer to the Graduate Bulletin.



In the College of Professional Studies and Fine Arts

OFFICE: Art 505

TELEPHONE: (619) 594-6511

Accredited by the National Association of Schools of Art and Design and the Foundation for Interior Design Education Research.

For purposes of exhibition and reference, the school reserves the right to retain for a limited period some of each student's work produced in class.

Faculty

Emeritus: Baker, K., Berg, Bigelow, Covington, Dirks, Frick, Higgins, Hodge, Hopkins, Hunter, Perczel, Roth (Longenecker), Sorenson, Tanzer, Wallace
Director: Orth
Professors: Austin, Baker, R., Cotten, Dominguez, Esser, Fisch, Hayakawa, Miller, Orth, Ray, Rigby, Roberts-Fields, Rogers, Shirk
Associate Professors: Burkett, Cooling, Dumlaio, Mansfield, Merritt, Nelson, Yapelli
Assistant Professors: Berelowitz, Maruyama, Moaney
Lecturers: Nakamura, Schamu, Siprut

Offered by the School of Art, Design and Art History

Master of Arts degree in art.
Master of Fine Arts degree in art.
Major in art with the B.A. degree in liberal arts and sciences.
Emphasis in art history.
Emphasis in studio arts.
Major in art with the B.A. degree in applied arts and sciences.
Emphasis in applied design.
Emphasis in environmental design.
Emphasis in graphic design.
Emphasis in interior design.
Emphasis in painting, printmaking, and photography.
Emphasis in sculpture.
Teaching major in art for the single subject teaching credential.
Minor in art.
Minor in art history.
Certificate in Art (available at Imperial Valley Campus only).

The Major

A significant concern of the School of Art, Design and Art History is the creative growth of its students. The school focuses on the development of sound undergraduate programs which provide a strong basic foundation in art. A major in art may be planned with an emphasis in applied design, with specialties in ceramics, furniture, metal-smithing, jewelry, and textiles; art history; studio arts; environmental design; graphic design; interior design; painting, printmaking, and photography; and sculpture. A program for those preparing for a single subject teaching credential is also available, as is a broad spectrum of courses for both majors and nonmajors in art history, art appreciation, basic drawing and design.

All emphases except art history require a set of core courses consisting of two courses each in drawing, design, and the survey of art history of the Western world. It is strongly recommended that all students complete the core requirements during their freshman year, or at least prior to taking beginning coursework in a specific program emphasis. It is recommended that students take courses from other emphases in order to enhance their overall art experience. In addition to the undergraduate degree, the school offers a Master of Arts degree (30 units) in all of these emphases and a Master of Fine Arts degree (60 units).

Although a degree in art is often pursued as a means of self-fulfillment and creative growth, graduates of the school are employed in a variety of settings. The programs in environmental design, interior design, and graphic design have a preprofessional orientation supplemented by a strong liberal arts background. Environmental design and interior design can lead to interior, architectural, landscape design or city planning. Graphic design prepares the student for the areas of environmental graphics, art direction, visual design for the contemporary media of advertising, or editorial illustration. The areas of painting, printmaking, photography, and sculpture prepare students for professional attitudes toward the fine arts and the continuance of their educational experience in graduate schools with the goal of teaching at institutions of higher learning. The preprofessional program in art education prepares the student for teaching in either elementary or secondary schools. The applied design program can be developed to specialize in ceramics, furniture design, jewelry, metal-smithing, textile design and weaving.

Art Major

With the B.A. Degree in Liberal Arts and Sciences

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in art courses can apply to the degree for students with an emphasis in Art History. For students majoring in art with an emphasis in studio arts no more than 57 units in art courses can apply to the degree.

This major in art may be planned with an emphasis in studio arts or art history.

A minor is not required with this major.

Emphasis in Art History
(Major Code: 10031)

Preparation for the Major. Art 100, 101, 158, 258, 259, and 263. (18 units)

Foreign Language Requirement. Four semesters of French or German, or successful completion of a proficiency examination in either French or German. The requirement may be met by taking German 100A, 100B, and 202; French 100A, 100B, 200A, and 200B; or by passing the Graduate School Foreign Language Examination in French or German; or by passing the French Foreign Language Graduation Requirement Waiver Examination (contact the School of Art, Design and Art History for permission to take this examination).

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in art history to include Art 593; 24 units selected from Art 371, 557 through 577.

Emphasis in Studio Arts
(Major Code: 10021)

Preparation for the Major. Art 100, 101, 102, 103, 203, 204, 216, 258, 259, and six units of art electives. (33 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units in art to include Art 403, 404, and 500; six units of art history; and nine units of art electives selected in consultation with an adviser.

Art Major

With the B.A. Degree in Applied Arts and Sciences

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Emphasis in Applied Design (Major Code: 10021)

Preparation for the Major. Art 100, 101, 102, 103, 220, 258, 259, and six units of art electives. (27 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in art to include three units from each of the areas listed below, and six units of extended work in one of the areas; three units of art electives; and six units of art history.

Fiber: Art 334, 435, 436, 534, 535, 536

Metal: Art 331, 431, 432, 531, 532, 533

Clay: Art 325, 425, 525, 526

Wood: Art 323, 423, 523

Emphasis in Environmental Design (Major Code: 10021)

Preparation for the Major. Art 100, 101, 102, 103, 148, 247, 248, 249, 250, 251, 258, 259. (36 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in art to include Art 348, 450, 454, 547, 550; six units selected from Art 323, 381, 416, 451, 453, 481, 552, 581, 591; and six units of art history (may include Art 581).

Emphasis in Graphic Design (Major Code: 10091)

Preparation for the Major. Art 100, 101, 102, 103, 241, 243, 258, 259; and six units selected from Art 203, 204, 210, 240. (30 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in art to include Art 341, 441, 541; six units of art history; and twelve units selected from Art 340, 440, 443, 444, 445, 540, 542, 543, 544.

Emphasis in Interior Design (Major Code: 02031)

Art majors wishing to enter one of the Interior Design upper division courses (Art 451, 453, 552, 553) must receive, as a condition of junior level qualification, a passing evaluation of a portfolio of work submitted to the Interior Design Evaluation Committee. Any advance enrollment in the above-listed upper division courses will remain provisional until clearance of the portfolio review. Reviews are held prior to the beginning of the fall and spring semesters. See the School of Art, Design and Art History office for specific information concerning current policies pertaining to the review, content of the portfolio, and the schedule to be observed.

Preparation for the Major. Art 100, 101, 102, 103, 148, 247, 248, 249, 250, 251, 258, 259. (36 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 30 upper division units in art to include Art 352, 451, 452, 453, 552, 553; six units selected from Art 381, 481, 581; three units selected from Art 323, 325, 334, 436, 450, 547, 591; and three additional units of art history.

Emphasis in Painting, Printmaking, and Photography (Major Code: 10021)

Preparation for the Major. Art 100, 101, 102, 103, 203, 258, 259, and six units selected from Art 204, 205, 207, or 210. (27 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units in art to include six units of art history, and 18 units selected in consultation with the adviser from Art 403, 404, 405, 406, 407, 408, 410, 411, 416, 500, 502, 503, 504, 506, 509, 510, 511.

Emphasis in Sculpture (Major Code: 10021)

Preparation for the Major. Art 100, 101, 102, 103, 216, 217, 258, 259; and three units selected from Art 203, 204, 220, 225, 231, 234. (27 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units to include Art 416, 418, 498A, 516 or 518, 517; six units of art history; and six units selected from Art 323, 331, 403, 404, 500, 516, 518, 591.

Art Major

For the Single Subject Teaching Credential With the B.A. Degree in Applied Arts and Sciences (Major Code: 10021)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education.

This major may be used by students in teacher education as an undergraduate major for the B.A. degree in applied arts and sciences.

Preparation for the Major. Art 100, 101, 102, 103, 204, 216, 220, 225, 258, 259, and three units selected from 203, 205, 210, or 241. (33 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Teaching Major. A minimum of 30 upper division units to include Art 325, 331, 404, 405, 435; six units of art history and nine units selected from Art 416, 425, 431, 436, 504, 535, and 536.

Art Minor

The minor in art consists of a minimum of 21 units in art, to include Art 100 and 101 and 12 units of upper division courses in art taken from art history, applied design, environmental design, interior design, painting, printmaking, and sculpture.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.



Art History Minor

The minor in art history includes a minimum of 21 units in art distributed as follows: Six units to include Art 258, 259, and three units selected from Art 158 or 263. Twelve units selected from Art 371, 557, 558, 559, 560, 561, 562, 568, 573A, 573B, 574, 575, 576, 577.

Courses in the minor may not be used toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Certificate in Art (Imperial Valley Campus)*

The Certificate in Art is a response to the needs of the community for a professionally oriented course of art studies. The certificate requirements are designed to satisfy those who want more than an occasional art course and who are not content with anything less than a solid foundation in a given medium. For apprentice artists, practicing artists, art educators, and others interested in developing their creative abilities, the certificate program demands a significant degree of commitment and meets that involvement with a strong basis in studio skills backed up with art history.

The student must complete an approved selection of six courses (18 units) with a minimum grade point average of 2.5 within a period of six consecutive semesters in order to qualify for the certificate. Candidacy will be established by the director of the program. In some cases, specific course prerequisites may be waived for persons able to demonstrate the skills or knowledge in question. In addition to formal course requirements, the student must submit a portfolio of work for review by a committee made up of the director and other instructional staff.

The Certificate in Art requires a minimum of 18 units to include Art 404 or 500, 406, 557 or 558; and nine units selected with the approval of the adviser from Art 325, 340, 341, 387, 403, 407, 425, 435, 496 (Color Photography; Studio Techniques), 502, 557 or 558 (if not taken above).

* Additional prerequisites required for this certificate.

Courses

LOWER DIVISION COURSES

100. Drawing and Composition (3) I, II (CAN ART 8)

Six hours.

The ordering of two-dimensional space through drawing.

101. Two Dimensional Design and Color (3) I, II, S (CAN ART 14)

Six hours.

Fundamentals of space and color design. Basic course used as a prerequisite for advanced work.

102. Drawing and Composition (3) I, II

Six hours.

Prerequisite: Art 100.

Line and value in drawing; emphasis on structure and proportion, sketching, gesture, and contour drawing.

103. Three Dimensional Design (3) I, II (CAN ART 16)

Six hours.

Prerequisite: Art 101.

Introduction and investigation of design and theory, and practice in three dimensions.

- 148. Visual Presentation I (3) I, II**
Six hours.
Prerequisite: Art 100.
Design drawing techniques including interior presentation drawings, interior detailing, architectural drafting, and lettering. Tools and materials used in the design professions.
- 157. Introduction to Art (3) I, II**
An illustrated lecture course dealing with the meaning of art derived from an investigation of the principles of art. Designed to increase the understanding and appreciation of art.
- 158. Arts of Native America, Sub-Saharan Africa, and Oceania (3)**
Arts of diverse societies of Native America, Sub-Saharan Africa, and Oceania in cultural context. Art forms from ancient to contemporary period.
- 203. Life Drawing (3) I, II**
Six hours.
Prerequisite: Art 102.
Drawing from the nude model. Maximum credit six units.
- 204. Painting (3) I, II (CAN ART 10)**
Six hours.
Prerequisites: Art 101 and 102.
Pictorial composition and techniques of painting. Maximum credit six units.
- 205. Waterbase Media (3) I, II**
Six hours.
Prerequisites: Art 101 and 102.
Composition of still-life and landscape in aqueous media. Maximum credit six units.
- 207. Introduction to Fine Art Photography (3) I, I**
Six hours.
Prerequisites: Art 102 and 103.
Black and white fine art photography including lighting techniques, small format cameras, metering, darkroom instruction, and fine art processes. Maximum credit six units.
- 210. Printmaking (3) I, II (CAN ART 20)**
Six hours.
Prerequisites: Art 101, 102 and consent of instructor.
Introduction and exploration of basic printmaking media. Emphasis on aesthetic and technical processes in intaglio, lithography, relief and serigraphy.
- 216. Sculpture (3) I, II (CAN ART 12)**
Six hours.
Prerequisite: Art 103.
Introduction and experimentation of basic sculpture ideas, methods and materials. Maximum credit six units.
- 217. Figurative Sculpture (3) I, II**
Six hours.
Prerequisite: Art 103.
Creative experimentation with sculptural forms from the human figure.
- 220. Design in Crafts (3) I, II**
Six hours.
Prerequisite: Art 103.
Visual and structural form in crafts.
- 225. Beginning Handbuilt Ceramics (3) I, II**
Six hours.
Prerequisite: Art 103.
Design and construction of handbuilt ceramic forms. Introduction of glaze for surface enrichment. Maximum credit six units.
- 231. Beginning Jewelry and Metals (3) I, II**
Six hours.
Prerequisite: Art 220.
Design and construction of jewelry and small objects in non-ferrous metals. Basic fabrication, forming, and surface embellishment techniques for metal.
- 234. Weaving (3) I, II**
Six hours.
Prerequisite: Art 220.
Structure and design of woven fabrics. Maximum credit six units.
- 240. Graphic Imagery (3) I, II**
Six hours.
Prerequisites: Art 100 and 103.
The organization concepts of design applied to experimental photographic and technical reproductive media, and environmental graphics.
- 241. Beginning Graphic Design (3) I, II**
Six hours.
Prerequisites: Art 102 and 103. **Proof of completion of prerequisite required:** Copy of transcript.
Creative projects exploring the interrelation of fundamental art principles and design using phonetic symbols and typography.
- 243. Intermediate Graphic Design (3) I, II**
Six hours.
Prerequisite: Art 241. **Proof of completion of prerequisite required:** Copy of transcript.
Typographic and design concepts applied to layout for contemporary media.
- 247. The House and Its Environment (3) I, II, S**
Architecture, interior design, landscape and city planning for forming the physical and aesthetic environment.
- 248. Visual Presentation II (3) I, II**
Six hours.
Prerequisites: Art 102, 103, 148. **Proof of completion of prerequisite required:** Copy of transcript.
Methods, materials, and tools of the professional environmental designer stressing art principles.
- 249. Visual Presentation III (3) I, II**
Six hours.
Prerequisite: Art 248. **Proof of completion of prerequisite required:** Copy of transcript.
Methods, materials, and tools of the professional environmental designer stressing art principles.
- 250. The Contemporary House (3) I, II**
Six hours.
Prerequisite: Art 248. **Proof of completion of prerequisite required:** Copy of transcript.
Elementary problems in neighborhood planning, house design and landscaping.
- 251. Interior Design I (3) I, II**
Six hours.
Prerequisites: Art 102 and 103. **Proof of completion of prerequisite required:** Copy of transcript.
Elementary functional and aesthetic studies in interior space and form. Relationships of light, color, texture, shape and volume.
- 258. Appreciation and History of Art (3) I, II (CAN ART 2)**
Art development in painting, sculpture, architecture, and handicrafts from the dawn of art to the Renaissance. Illustrated.
- 259. Appreciation and History of Art (3) I, II (CAN ART 4)**
The period from the Renaissance through the modern school treated in the same manner as in Art 258.
- 263. Far Eastern Art (3) II**
Arts of China and Japan from prehistoric times to present.
- 296. Experimental Topics (1-4)**
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

- 323. Furniture Design (3) I, II**
Six hours.
Prerequisites: Art 102 and 220.
Study of the principles of design through the making of furniture.
- 325. Beginning Throwing-Ceramics (3) I, II**
Six hours.
Prerequisite: Art 220. Recommended: Art 225.
Basic methods of forming, decorating, glazing and firing pottery forms with emphasis on the use of the potter's wheel.
- 331. Beginning Jewelry and Metalwork (3) I, II**
Six hours.
Prerequisite: Art 220.
Creative design and construction in metal of jewelry and small objects. Techniques in three-dimensional forming and constructions in nonferrous metals. Not open to students with credit in Art 231.
- 334. Advanced Weaving (3) I, II**
Six hours.
Prerequisite: Art 220.
Total credit in Art 234, 334 and 534 limited to nine units.
Advanced problems in fabric design and weave construction including tapestry and rug weaving techniques. Maximum credit six units.
- 340. Graphic Imagery (3) I, II**
Six hours.
Prerequisites: Art 102 and 103.
Experimental photographic and technical reproductive media. Not open to students with credit in Art 240.
- 341. Graphic Design (3) I, II**
Six hours.
Prerequisite: Art 243. **Proof of completion of prerequisite required:** Copy of transcript.
Investigation of design concepts relating to advertising.
- 347. The House and Its Environment (3) I, II, S**
Architecture, interior design, landscape, and city planning for forming the physical and aesthetic environment, its simplicities and complexities. Not open to students with credit in Art 247.
- 348. Environmental Media (3) II**
Six hours.
Prerequisite: Art 249.
Design communication and documentation techniques using photography, exhibition, portfolio, and publication orientations as they relate to environmental design.
- 352. Methods and Materials of Interior Design (3) I, II**
Prerequisites: Art 250 and 251.
Topics in successful professional practice including codes, legal liabilities, contractual agreements, project management. Lectures in field settings illustrate methods and materials of installation and explore environmental systems.
- 371. Medieval Art (3) II**
Prerequisites: Art 258 and 259.
Development of painting, sculpture and architecture from the time of Constantine through the Gothic period.
- 381. History and Theory of Environmental Design (3) S**
Prerequisites: Art 258 and 259.
Environmental arts. From earliest times to the fifteenth century.
- 387. Design for Teachers (3) I, II, S**
Six hours.
Prerequisite: Art 101.
A design-crafts course that explores in depth materials and processes that could be used with young people.
- 403. Advanced Life Drawing (3) I, II**
Six hours.
Prerequisite: Art 203.
Drawing the nude model. Maximum credit six units.
- 404. Intermediate Painting (3) I, II**
Six hours.
Prerequisite: Art 204.
Concepts that enhance basic painting principles and a broad range of painting issues. Maximum credit six units.
- 405. Intermediate Waterbase Media (3) I, II**
Six hours.
Prerequisites: Art 101 and 102. Recommended: Art 204 or 205.
Painting issues in transparent and opaque. Maximum credit six units.
- 406. Design and Composition (3)**
Six hours.
Prerequisites: Art 103 and 204.
Structure in picture making.
- 407. Black and White Photography as a Fine Art Medium (3) I, II**
One lecture and four hours of activity.
Prerequisite: Art 207.
Intermediate black and white photography and darkroom techniques combined with independent research in contemporary art and photography. Criticism in contemporary context. Maximum credit six units.
- 408. Color Photography as a Fine Art Medium (3) I**
One lecture and four hours of activity.
Prerequisite: Art 407.
Color photography as a fine art medium, including color theory, transparency and negative film exposure controls, darkroom techniques, and electronic flash and lighting techniques for color photography. Maximum credit six units.
- 410. Intaglio Printmaking (3) I, II**
Six hours.
Prerequisites: Art 203 and 210.
Creative intaglio-etching, drypoint, aquatint, engraving and variations. Emphasis on fine print quality and technical development. Maximum credit six units.
- 411. Lithography Printmaking (3) I, II**
Six hours.
Prerequisites: Art 101 and 203.
Creative lithography-stone and plate planographic process. Emphasis on fine print quality and technical development. Maximum credit six units.
- 416. Intermediate Sculpture (3) I, II**
Six hours.
Prerequisite: Art 216.
Individual investigations into sculpture ideas, methods and materials. Individual development in sculpture. Materials may include clay, plastics, paper or wood. Maximum credit six units. (Formerly numbered Art 416A, 416D, 416E.)
- 418. Metal Sculpture (3)**
Six hours.
Prerequisite: Art 216.
Sculpture ideas and methods using metal fabrication and introductory foundry processes. Individual development in sculpture. Maximum credit six units. (Formerly numbered Art 416C.)
- 423. Advanced Furniture Design (3) I, II**
Six hours.
Prerequisite: Art 323.
Advanced individual design: Exploration of materials, process and function. Maximum credit six units. Maximum combined credit of 12 units in Art 323, 423, and 523.

- 425. Intermediate Ceramics (3) I, II**
Six hours.
Prerequisite: Art 325.
Continuation of Art 325. Further development of knowledge, skills and philosophy of ceramics through individual creative projects.
- 431. Intermediate Jewelry and Metalwork (3) I, II**
Six hours.
Prerequisite: Art 231 or 331.
Further development of design and metalworking skills specifically related to jewelry. Specialized techniques such as casting, chasing, stone setting, die forming and enameling.
- 432. Metalsmithing (3)**
Six hours.
Prerequisite: Art 231 or 331.
Creative design and techniques in metalsmithing.
- 435. Nonwoven Textile Construction (3) I, II**
Six hours.
Prerequisite: Art 220.
Textile structures with an emphasis on nonloom techniques.
- 436. Textile Design (3) I, II**
Six hours.
Prerequisite: Art 220.
Application of design for the textile surface, using a broad variety of media and processes appropriate for both the individual designer and commercial reproduction. Media include stencil, block, silk-screen, batik, and tie-dye. Maximum credit six units.
- 440. Advanced Graphic Design – Environmental Graphics (3)**
Six hours.
Prerequisite: Art 241.
Study of visual design for contemporary architectural, motivational, display traffic and guidance graphics.
- 441. Advanced Graphic Design – Media (3) I, II**
Six hours.
Prerequisite: Art 341. **Proof of completion of prerequisite required:** Copy of transcript.
Application of visual design concepts to graphic design, advertising media and technical reproductive processes.
- 443. Drawing and Illustration for Graphic Design (3) I, II**
Six hours.
Prerequisites: Art 103 and 203.
Disciplines of realistic, descriptive illustration. Methods, materials and tools of the professional graphic designer and illustrator.
- 444. Visual Communication Media (3)**
Six hours.
Prerequisite: Art 341.
Experimental, creative and practical exploration of contemporary communication as related to sequential visual imagery.
- 445. Internship in Graphic Design (3) Cr/NC I, II**
Prerequisites: Art 441 and consent of instructor.
Field experience in design, business procedures, management, client relationships, and supervision of subcontractual work with local practicing professionals. Maximum credit six units.
- 450. Synergetic Environments (3) I**
Six hours.
Prerequisites: Art 249 and 454.
Synthesis of materials, space, sound and light using exploratory methods in full scale projects.
- 451. Interior Design II (3) I, II**
Six hours.
Prerequisites: Art 249, 250, 251, and completion of portfolio requirement. **Proof of completion of prerequisites required:** Copy of transcript.

Survey, analysis and conceptual design methods of residential interiors stressing materials, equipment, components and structural detailing. Maximum credit six units.

- 452. Interior Design Practicum (3) Cr/NC I, II**
Nine hours of laboratory.
Prerequisite: Art 453. **Proof of completion of prerequisite required:** Copy of transcript.
Field experience with local professional interior designers in client relationships, business procedures, supervision of subcontracted work and installation, and execution of contracts. Maximum credit six units.

- 453. Interior Design III (3) I, II**
One lecture, two hours of activity, and three hours of laboratory.
Prerequisites: Art 249, 250, 251, and completion of portfolio requirement. **Proof of completion of prerequisites required:** Copy of transcript.
Materials and techniques of nonresidential space planning: Estimating, specification writing, contractual agreements, record keeping, budgets, and project supervision. Required field trips to professional offices, studios and showrooms. (Formerly numbered Art 552.)

454. Environmental Design (3) I, II
Six hours.
Prerequisites: Art 247 and 250.
Survey, analysis and design synthesis of problems of more complexity, through interiors, to landscape, to architectural planning and, finally, concern for city design.

- 481. History and Theory of Environmental Design (3) I**
Prerequisites: Art 258 and 259.
Environmental arts. From the fifteenth to the nineteenth century.
- 496. Experimental Topics (1-4)**
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
- 497. Senior Investigation and Report (3) I, II**
Nine hours for 497A; three hours for 497B.
Prerequisites: Six upper division units in art, and consent of instructor.
Individual research into areas of studio and art history not covered by regular courses.

A. Studio Investigations
B. Art History Investigations

- 498. Senior Project (3) I, II**
Nine hours for 498A; three hours for 498B.
Prerequisite: Consent of instructor.
Investigation in art. Formal presentation of project.
- A. Studio project**
B. Art History project

499. Special Study (1-3) I, II
Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

- 500. Advanced Drawing (3)**
Six hours.
Prerequisites: Art 203 and 204.
Drawing emphasizing the qualitative aspect of visual subject matter. Maximum credit six units.
- 502. Inter-Media (1-3) I, II**
Two hours for each unit of credit.
Prerequisites: Art 102 and 103.
Process and materials in plane and space. Maximum credit six units.

- 503. Life Drawing and Painting (3) I, II**
Six hours.
Prerequisites: Art 204 and 403.
Drawing and painting from nude and costumed models. Maximum credit six units.

- 504. Advanced Painting (3) I, II**
Six hours.
Prerequisite: Six units of Art 404.
Approaches to contemporary concepts in painting. Maximum credit six units.

- 506. Contemporary Issues for Studio Artists (3) I**
Prerequisites: Upper division or graduate standing in art and consent of instructor.
Theory, practice, and philosophy of being an artist. Independent research on current art concepts and issues. Material will encompass the past five years. Field trips.

509. Relief Printmaking (3) I, II
Six hours.
Prerequisites: Art 203 and 210.
Woodcut, wood engraving, gessocut, linoleum, collograph, and relief printmaking processes. Emphasis on fine print quality and technical development using mixed media. Maximum credit six units.

- 510. Intaglio Printmaking in Color (3) I, II**
Six hours.
Prerequisite: Art 410.
Advanced creative intaglio printmaking in color, including zinc and copper plate; etching, drypoint, aquatint, engraving, embossing and color variations. Emphasis on fine print quality and technical development in the color process unique to this medium. Maximum credit six units.

- 511. Lithography Printmaking in Color (3) I, II**
Six hours.
Prerequisite: Art 411.
Advanced creative lithography printmaking in color. Emphasis on fine print quality in color process and color technology unique to this medium. Maximum credit six units.

- 516. Advanced Sculpture (3) I, II**
Six hours.
Prerequisite: Art 416.
Individual investigations into sculpture ideas, methods and materials. Individual development in sculpture. Materials may include clay, plastics, paper or wood. Maximum credit six units. (Formerly numbered Art 516A, 516D.)

- 517. Advanced Figurative Sculpture (3) I, II**
Six hours.
Prerequisites: Art 216 and 217.
Figurative study with emphasis on individual exploration. Maximum credit six units.

- 518. Advanced Metal Sculpture (3)**
Six hours.
Prerequisite: Art 418.
Sculpture ideas and methods using metal fabrication and foundry processes. Individual development in sculpture. Maximum credit six units. (Formerly numbered Art 516C.)

- 523. Advanced Furniture Design (3) I, II**
Six hours.
Prerequisite: Art 423.
Advanced individual design; exploration of materials, process and function. Maximum credit six units. Maximum combined credit of 12 units in Art 323, 423, and 523.

- 525. Advanced Ceramics (3) I, II**
Six hours.
Prerequisite: Art 425.
Study of ceramic design through creative projects of clay forms. Maximum credit six units.

- 526. Clay and Glaze Technology in Ceramic Design (3)**
Six hours.
Prerequisite: Art 425.
Experimentation and application of research concerning the use of ceramic materials and techniques as an integral part of the design process. Maximum credit six units.

- 531. Advanced Jewelry and Metalwork (3) I, II**
Six hours.
Prerequisite: Art 431.
Problems involving fabrication processes already studied in order to increase technical competence while exploring personal design statements; specialized techniques such as photoetching and electroforming. Maximum credit six units.

- 532. Advanced Metalsmithing (3) I, II**
Six hours.
Prerequisite: Art 432.
Advanced problems involving metal processes to increase technical competence while exploring personal design statements. Maximum credit six units.

- 533. Textile Techniques in Metal (3)**
Six hours.
Prerequisite: Art 331 or 435.
Textile structures as applied to precious and nonprecious metals. Individually designed projects utilizing information acquired through samples and documentation. For students of fiber, metal and sculpture.

- 534. Advanced Weaving (3) I, II**
Six hours.
Prerequisite: Art 334.
Advanced individual problems in weaving. Maximum credit six units. Maximum combined credit of nine units in Art 234, 334, and 534.

- 535. Advanced Nonwoven Textile Construction (3) I, II**
Six hours.
Prerequisite: Art 435.
Advanced study in nonloom techniques. Techniques to include: looping, braiding, plating, and special fabricating techniques. Experimentation with new man-made fibers and with synthetic commercial dyes. Maximum credit six units.

- 536. Advanced Textile Design (3) I, II**
Six hours.
Prerequisite: Art 436.
Application of design for the textile surface, appropriate for both the individual designer and commercial reproduction. Maximum credit six units.

- 540. Advanced Graphic Imagery (3) I, II, S**
Six hours.
Prerequisite: Art 240 or 340.
Investigation of experimental photographic and technical reproductive media.

- 541. Advanced Graphic Design – Communication Systems (3) I, II**
Six hours.
Prerequisite: Art 441. **Proof of completion of prerequisite required:** Copy of transcript.
Symbolic processes, materials and structures, visual communications systems relating to corporate and visual identification programs. Maximum credit six units.

- 542. Advanced Professional Problems in Graphic Design (3) I, II**
Six hours.
Prerequisite: Art 441 or 541; or consent of instructor by portfolio review.
Refinement of personal visual imagery and the application of design concepts to production situations. Study of professional responsibilities, conduct and business procedures. Development of a professional level portfolio.

543. Advanced Drawing and Illustration for Graphic Design (3) II

Six hours.

Prerequisite: Art 443.

Refinement of visual imagery and advanced illustration problems.

544. Advanced Visual Communication Media (3)

Six hours.

Prerequisite: Art 444.

Experimental, creative and practical exploration of contemporary communication as related to advanced sequential visual imagery in multimedia formats.

547. Environmental Theory (3) I, II

Prerequisite: Art 247 or 347.

Survey of alternative solutions to the problem of design of the physical environment.

550. Environmental Prototypes (3) I

Six hours.

Prerequisites: Art 247, 250, 450.

Research and development of creative architectural concepts with emphasis in space enclosure systems and cybernetics.

552. Interior Design IV (3) I, II

Six hours.

Prerequisites: Art 451, 453, and completion of portfolio requirement. **Proof of completion of prerequisites required:** Copy of transcript.

Projects in architectural interiors involving the use and perception of enclosed spaces. Space planning systems analysis. Maximum credit six units.

553. Interior Design V (3) I, II

Six hours.

Prerequisite: Art 552. **Proof of completion of prerequisite required:** Copy of transcript.

Projects in interiors involving space planning analysis, specification writing, materials selection and furnishing design appropriate to commercial needs. Maximum credit six units.

557. Art of the Nineteenth Century (3) I, II

Prerequisites: Art 258 and 259.

Development of painting, sculpture, and architecture from the French Revolution to 1900.

558. Twentieth Century European Art to 1945 (3) I, II

Prerequisite: Art 259.

Major developments in the visual arts and art criticism from 1880 to 1945 (Post-Impressionism through Surrealism).

559. Twentieth Century European and American Art Since 1945 (3) I, II

Prerequisites: Art 258 and 259. Recommended: Art 558.

Major developments in the visual arts and art criticism since 1945.

560. History of American Art (3)

Prerequisites: Art 258 and 259.

Development of painting, sculpture, and architecture from the Native American art and Colonial Period to the present.

561. Art of Pre-Hispanic America (3)

Prerequisite: Upper division standing.

Art of ancient Meso-America, Central America, Caribbean, and South America from earliest times until contact with Europe.

562. Art of Latin America (3)

Prerequisite: Upper division standing.

Art and architecture of Latin America from the colonial period to the present. Field trips included.

568. Art of Crete, Mycenae, Greece, and Rome (3)

Prerequisite: Art 258.

Development of painting, sculpture, architecture, and crafts from prehistoric times to the fifth century A.D.

573A. Early Renaissance Art in Italy (3)

Prerequisites: Art 258 and 259.

Italian arts, architecture, artists, and patrons from fourteenth century Proto-Renaissance period through fifteenth century revival of classical humanism in city states of Florence, Siena, Bologna, Mantua, and Padua.

573B. Late Renaissance Art in Italy (3)

Prerequisites: Art 258 and 259.

High Renaissance in Florence and Rome, followed by disintegration of classical principles and domination of Mannerism in Central and Northern Italy and history of arts of Venice in sixteenth century.

574. Northern Renaissance Art (3)

Prerequisites: Art 258 and 259.

Architecture, sculpture, and painting north of the Alps during the Renaissance period.

575. Baroque and Rococo Art (3)

Prerequisites: Art 258 and 259.

Architecture, sculpture, and painting of the Baroque and Rococo periods.

576. Arts of Native North America (3)

Prerequisite: Upper division standing.

Form and content of the arts of North American Indians viewed within a cultural context. Field trips.

577. History of Architecture (3)

Prerequisites: Art 258 and 259.

Architecture from primitive times to the present.

581. History and Theory of Environmental Design (3) II

Prerequisites: Art 258 and 259.

Environmental arts in the nineteenth and twentieth centuries.

591. Gallery Exhibition Design (3) I, II

Six hours.

Prerequisite: Fifteen units of art.

Fundamental art elements and principles applied to the theories and techniques of gallery exhibition design.

592. Gallery Exhibition Design (3) I, II

Six hours.

Prerequisite: Art 591.

Advanced problems in the theories and techniques of gallery exhibition design.

593. History and Methodology of Art History (3) II

Prerequisites: Upper division standing; art history major or minor.

Readings and discussions on the historiography of art and on modern methodologies for art historical research.

596. Advanced Studies in Art and Art History (1-4)

Prerequisites: Twelve units of art and art history and consent of instructor.

Advanced topics in art and art history. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum credit of three units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.**OFFICE: Adams Humanities 4207****TELEPHONE: (619) 594-5262****Faculty**

Asian studies is administered through the Center for Asian Studies. Faculty assigned to teach courses in Asian Studies are drawn from the Departments of Anthropology, Art, Classics and Humanities, Economics, English and Comparative Literature, Geography, History, Linguistics and Oriental Languages, Philosophy, Political Science, Religious Studies, and Sociology; the Colleges of Business Administration, Education, Engineering, and Sciences; and the Library.

Director and Undergraduate Adviser: Madhavan (Economics)**Graduate Adviser:** R. Smith (History)**Faculty:** Bergstrom (Political Science), Chan (Library), Chen (Information and Decision Systems), Cheng (Communicative Disorders), Chin (English and Comparative Literature), Chu (History), Coox (History), Cox (History), Donahue (Linguistics), DuFault (History), Heinrichs (History), The Dwight E. Stanford Chair in American Foreign Relations), Henry (Anthropology), Hermansen (Religious Studies), Higurashi (Japanese), Himes (Anthropology), Ima (Sociology), Johnson (Religious Studies), Madhavan (Economics), Nam (Economics), Oades (History), Peterman (Music), Rogers (Library), Rogers (English and Comparative Literature), Shaw (Teacher Education), Smith, R. (History), Strand (Dean, College of Arts and Letters), Wawrytko (History), Whitney (Anthropology), Wittenborn (History), Woo (Chinese), Yu (Public Health)**Adjunct:** Somanathan (Chemistry)**Offered by Asian Studies**

Master of Arts degree in Asian studies.

Major in Asian studies with the B.A. degree in liberal arts and sciences.

Minor in Asian studies.

The Major

Two and one-half billion people live in East, Southeast, and South Asia—half of the world's population. The importance of this immense and varied region cannot be overstated. More and more Americans are discovering the rich culture and history of the Asian people. Asians have made a major contribution to the world's literature and art, religion and philosophy, and are becoming increasingly important in international relations, business, and economics.

Nonmajors who wish to increase their knowledge about Asian peoples will find courses available in the Asian studies undergraduate and graduate programs.

The Asian studies program seeks to provide a background for students planning to enter business, the academic environment, government, or community service—wherever the knowledge of Asia and Asians is needed. Students in the major develop an understanding of cultural heritage, societies, language and special forces. Areas of special interest may be pursued in depth.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Asian Studies

In the College of Arts and Letters

Asian Studies Major**With the B.A. Degree in Liberal Arts and Sciences****(Major Code: 03011)**

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Each student must file an individual master plan with the Asian Studies undergraduate adviser and with the Office of Admissions and Records.

A minor is not required with this major.

Preparation for the Major. Six units selected from Asian Studies 106, 107; History 120, 121; Philosophy 101, 102; or Religious Studies 101; and six units selected from Anthropology 101, 102; Economics 101, 102; Geography 101, 102; or Political Science 101, 103. (12 units)

Art 258 and 259 (unless waived by the instructor) are needed if Art 366 is selected in the major. Art 263 is recommended.

Foreign Language Requirement. Competency (equivalent to that normally attained through two consecutive years of college study) in one major Asian language, such as Chinese or Japanese, unless specifically waived by the undergraduate adviser.**Upper Division Writing Requirement.** Passing the University Writing Examination or completing Anthropology 396W, English 508W, Linguistics 396W, Religious Studies 396W, Rhetoric and Writing 305W, 500W, 503W, or Sociology 396W with a grade of C (2.0) or better.**Major.** A minimum of 30 upper division units to include six units selected from Asian Studies 458, 459, 499 (maximum three units), 560, and 596. No fewer than 12 units must be chosen from at least two humanities departments, and no fewer than 12 units must be chosen from at least two social science departments. A student may choose courses focusing on East Asia, South Asia, or Southeast Asia.

Appropriate humanities courses are Art 308; Comparative Literature 455, 460, 470*, 490*, 571*, 577*, 580*; History 496*, 561A, 561B, 562, 563, 564A, 564B, 565, 566, 567, 568, 569, 570, 596*; Linguistics 496*; Music 351F, 561*; Philosophy 351, 575*, 596*; Religious Studies 401, 403, 499*, 506, 580*, 581*, 583*.

Appropriate social science courses are Anthropology 448, 450, 452, 481*, 496*, 582*, 583*; Economics 330, 336*, 360, 365*, 465, 489, 496*, 499*; Political Science 361, 362, 499; Women's Studies 580*.

* When deemed relevant by the undergraduate adviser.

Asian Studies Minor

The minor in Asian studies consists of a minimum of 21 units to include Asian Studies 106 and 107. Other lower division courses acceptable for the minor are Art 263 and four units of an appropriate Asian language, e.g., Chinese or Japanese. Twelve units must be in upper division and divided equally between humanities and social science courses.

Appropriate humanities courses are Asian Studies 458, 499, 596; History 561A, 561B, 562, 563, 564A, 564B, 565, 566, 567, 568, 569, 570; Philosophy 351, 575 (when relevant)*, 596 (when relevant)*; Religious Studies 401, 403, 506.

Appropriate social science courses are Asian Studies 459, 499, 560, 596; Anthropology 450, 452; Economics 330, 465; Marketing 376*; Political Science 362, 499 (when relevant)*.

* Additional upper division prerequisites are required for these courses.

To achieve a desired geographical spread of courses in the minor, no more than six units may be selected from History 566, 567, 568, and Philosophy 351; no more than six units may be selected from History 569, 570, and Anthropology 452; and no more than six units from Anthropology 450, History 562, 563, and Religious Studies 401, 506.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of twelve upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

106. Cultural Heritage of Asia (3) II

Social and cultural heritages of South, Southeast, and East Asian societies as revealed in art, drama, classical literatures, and folk traditions.

107. Social Foundations of Modern Asia (3) I, II

Social, economic, and political systems of South, Southeast, and East Asia in modern times.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

458. Asian Traditions (3) I, II

Prerequisites: Six units of Asian-content courses or upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Social, cultural, economic, and political traditions of South, Southeast, and East Asia; how they functioned in theory and practice prior to twentieth century.

459. Contemporary Asian Cultures (3) I, II

Prerequisite: Six units of Asian-content courses or upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Continuity and change in traditions and values of Asian societies in face of urbanization, modernization, and Westernization since mid-nineteenth century.

496. Experimental Topics (1-4)

Prerequisite: Six units of Asian-content courses.

Selected topics in Asian studies. May be repeated with new content. Maximum credit six units with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3)

Prerequisites: At least six units of upper division work completed toward the major or minor in Asian studies and consent of the instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

560. History of Japanese Business and Trade (3) I, II

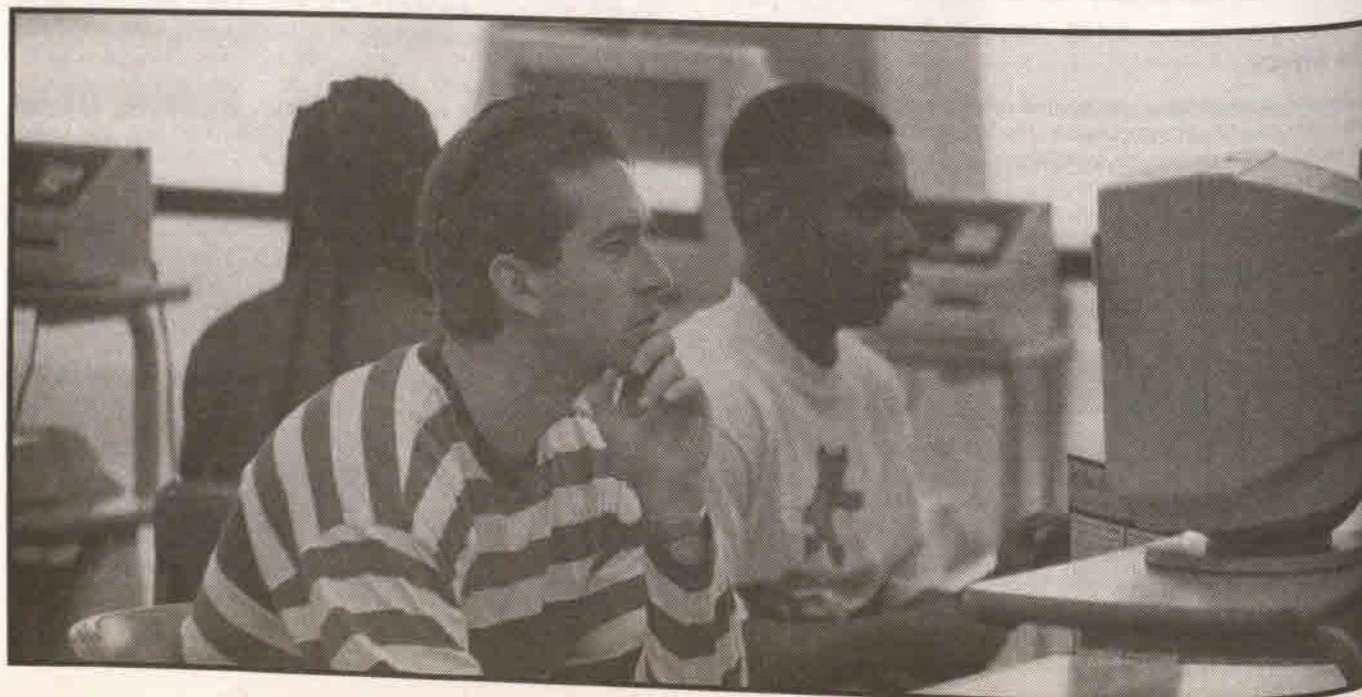
Prerequisites: Upper division standing and consent of instructor.

Japanese business and trade from 1600 to present. Emphasis on Japan's rapid economic development since 1868, interplay of social and economic forces, structure of Japanese business system, and problems of international trade.

596. Selected Studies in Asian Cultures (3)

Topics on various aspects of Asian studies. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES Refer to the Graduate Bulletin.



Astronomy

In the College of Sciences

OFFICE: Physics/Astronomy 210

TELEPHONE: (619) 594-6182

Faculty

Emeritus: Nelson

Chair: Angione

Professors: Angione (Director of Mt. Laguna Observatory), Daub, Etzel, Young, A.

Associate Professors: May, Shafter, Talbert

Adjunct: Cheng, Hintzen, Hood, Kovach, Olson, Young, A.T.

Offered by the Department

Master of Science degree in astronomy.

Major in astronomy with the B.A. degree in liberal arts and sciences.

Major in astronomy with the B.S. degree in applied arts and sciences.

Minor in astronomy.

The Major

Will the universe expand forever? Is there life on other planets? How are stars formed? These are the types of questions being addressed by students majoring in astronomy. Some areas of study in astronomy include the sun, the solar system, the stars, the Milky Way, the galaxies, and cosmology.

SDSU is the only institution in The California State University system which offers a complete academic program in astronomy. Students actively participate in all phases of observational astronomical research.

Joint faculty and student research activities are principally in the area of observational astrophysics. These include ongoing investigations of cosmology, eclipsing binary stars, low mass stars, planetary nebulae, galactic clusters, exterior galaxies, and atmospheric physics.

Much of this work is done at the Mount Laguna Observatory operated by the University. The department also has excellent computer facilities.

Graduates with a bachelor's degree may find some positions in observatories and large astronomy departments. These jobs support continuing research and include telescope operators, instrument makers, opticians, electronic technicians, programmers, photographers, and laboratory technicians.

Employment opportunities for astronomers who have advanced degrees include positions in colleges and universities, in national observatories and government laboratories, in planetariums, and in industry and private companies.

Astronomy Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 9111)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in astronomy courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Astronomy 205; Mathematics 150, 151, and 252; Physics 195, 195L, 196, 196L, 197, 197L. (28 units)

Recommended: Chemistry 200, Engineering 120 or Computer Science 106.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive semesters of college study) is required in one foreign language as part of the preparation for the major. Refer to the section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in astronomy and physics to include Astronomy 340, 350, 440, 450; Mathematics 342A; Physics 350, 354A; and six units selected with the approval of the astronomy undergraduate adviser. Recommended: Astronomy 320; Physics 354B, 400A, 406, 460.

Astronomy Major

With the B.S. Degree in Applied Arts and Sciences

(Major Code: 19111)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

Preparation for the Major. Astronomy 205; Physics 195, 195L, 196, 196L, 197, 197L. (15 units)

Recommended: Chemistry 200, Engineering 120 or Computer Science 106.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units in astronomy and physics to include Astronomy 340, 350, 440, 450, 498A, 498B; Physics 350, 354A, 400A, 460; and nine units selected from Astronomy 320; Physics 311, 354B, 400B, 406, 510.

Minor in Mathematics. All candidates for the B.S. degree in astronomy must complete a minor in mathematics, to include Mathematics 150, 151, 252, 342A; and six additional upper division units of electives in mathematics. Recommended: Mathematics 342B, 342C, 541, 551A.

Astronomy Minor

The minor in astronomy consists of a minimum of 15 units to include Astronomy 101 or 205 and 12 upper division units selected from Astronomy 301, 320*, 340*, 350*, 440*, 450*.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

* Additional prerequisites required.

Courses

LOWER DIVISION COURSES

101. Principles of Astronomy (3) I, II

Nature of the universe: the solar system, stars, galaxies, and remote universe.

109. Astronomy Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Astronomy 101. Demonstration of astronomical principles through observations with astronomical instruments and analysis of astronomical data.

205. Modern Astronomical History (3)

Prerequisite: Physics 195.

Discoveries, advancements, and individuals of the last century that have had a major influence on current astronomical conceptions and practices.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

301. Cosmology and Gravitational Collapse (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.1. Physical Sciences.

Einstein's theory of general relativity applied to problems of gravitational collapse (stellar evolution, neutron stars, black holes) and cosmology (origin and evolution of the universe).

320. Solar System Astronomy (3)

Prerequisites: Astronomy 101 and Physics 197, 197L.

Structures of the planets, their atmospheres and satellite systems, asteroids, comets, and meteoroids, and the interplanetary medium, including the sun's influence in the system.

340. Spherical Astronomy (3) I

Prerequisites: Credit or concurrent registration in Mathematics 252 and Physics 197.

Problems in spherical astronomy, astronomical coordinate systems, time, general precession, and introduction to astrometry.

350. Astronomical Techniques (3) II

Prerequisite: Astronomy 340.

Data acquisition and data reduction for current instrumentation including photoelectric photometry, direct imaging, and spectroscopy. Techniques for obtaining precise measurements.

440. Astrophysics of Stars (3) I

Prerequisites: Credit or concurrent registration in Mathematics 342A and Physics 354A.

Radiative transfer theory, atmospheres of stars and the emergent spectrum, interior structure and evolution of stars, stellar pulsations.

450. Astrophysics of Star Systems (3) II

Prerequisites: Credit or concurrent registration in Mathematics 342A and Physics 354A.

Applications of physics in study of binary stars, star clusters, the interstellar medium and galactic structure, galaxies, and cosmology.

498A. Senior Project (1) I, II

Prerequisite: An acceptable master plan for graduation within one year.

Selection and design of individual projects.

498B. Senior Project (2) I, II

Six hours of laboratory.

Prerequisite: Astronomy 498A.

Individual research project culminating in a final written report.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

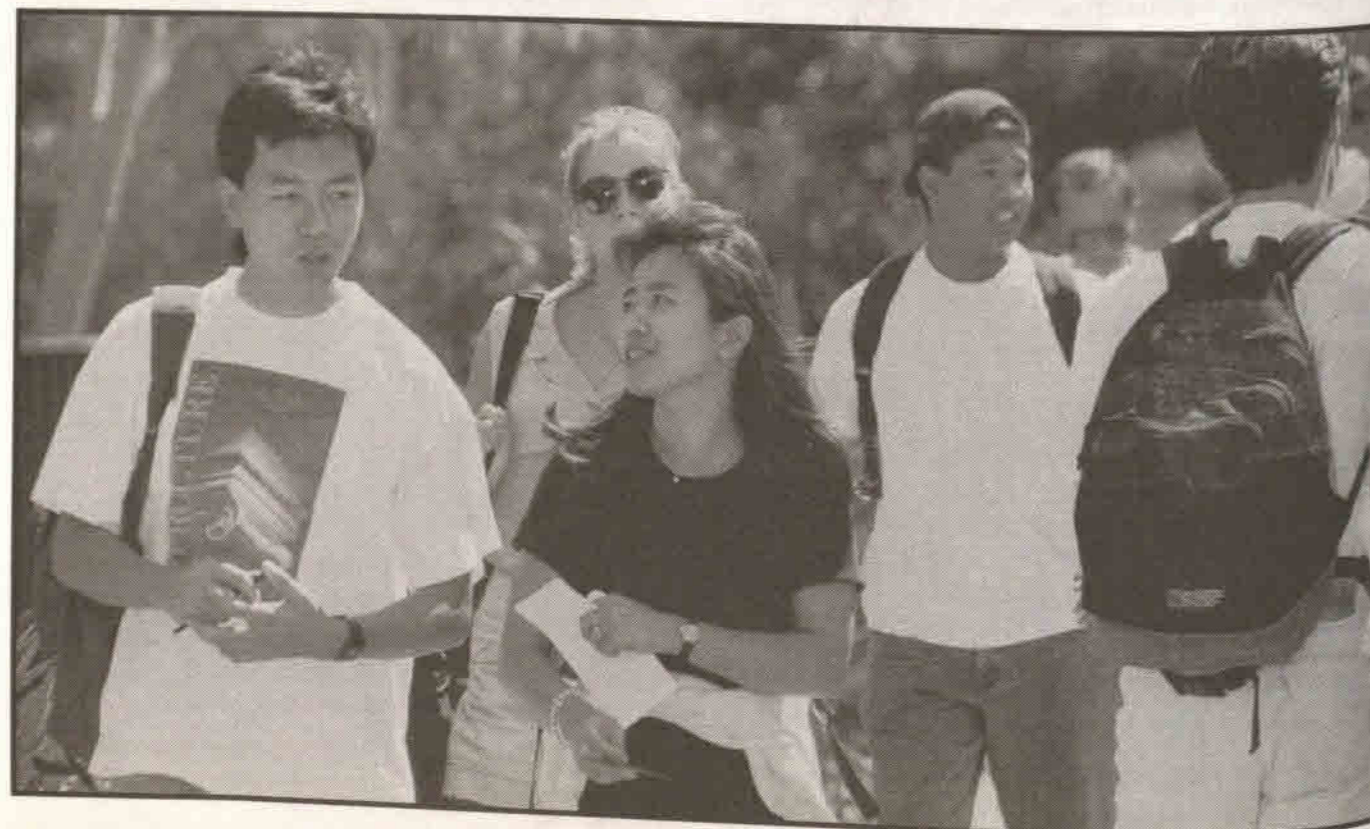
UPPER DIVISION COURSE
(Also Acceptable for Advanced Degrees)

596. Advanced Topics in Astronomy (2 or 3) I, II

Prerequisite: Consent of instructor.

Selected topics in theoretical astronomy or astrophysics. May be repeated with new content upon approval of instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.



Biology

In the College of Sciences

OFFICE: Life Sciences 104

TELEPHONE: (619) 594-6767

Faculty

Emeritus: Alexander, Atkins, Baxter, Bohnsack, Brandt, Carpenter, Clark, Cohn, Collier, G., Crouch, Davis, Etheridge, Farris, Hazen, Huffman, Johnson, A., Kelly, Kummerow, McBlair, McLean, Moore, Neel, Norland, Olson, Parsons, Phelps, Plymale, Ratty, Rinehart, Schapiro, Shepard, Sloan, Taylor, Van Steenberg, Walch, Wedberg, Wilson

Chair: Barnett

Professors: Alfred, Allen, Archibald, Awbrey, Barnett, Bernstein, Berta, Bizzoco, Breindl, Chen, Collier, B., Cox, Davis, Dexter, Dowler, Ebert, Fisher, Ford, Frey, Glembotski, Hemmingsen, Hunsaker, Hurlbert, Johnson, G., Johnson, K., Krekorian, Krisans, McClenaghan, Monroe, Oechel, Paolini, Perrault, Phleger, Pozos, Rayle, Sabbadini, Simpson, Tsoukas, Zedler, J., Zedler, P., Zyskind

Associate Professors: Avila, Beuchat, Daugherty, Diehl, Futch, Hanscom, Thwaites, Williams, K., Williams, S.

Assistant Professors: Carmichael, Harris, Helenurm, Mabee, McGuire, Segall

Lecturer: Lewis

Offered by the Department

Doctor of Philosophy degree in biology and ecology.

Master of Arts degree in biology.

Master of Science degree in biology.

Master of Science degree in microbiology.

Major in biology with the B.A. degree in liberal arts and sciences.

Major in biology with the B.S. degree in applied arts and sciences.

Emphasis in cellular and molecular biology.

Emphasis in ecology.

Emphasis in evolution and systematics.

Emphasis in marine biology.

Emphasis in zoology.

Major in environmental health with the B.S. degree in applied arts and sciences.

Major in microbiology with the B.A. degree in liberal arts and sciences.

Major in microbiology with the B.S. degree in applied arts and sciences.

Emphasis in medical technology and public health microbiology.

Program for the single subject teaching credential in science.

Minor in biology.

Certificate in Recombinant DNA Technology.

The Majors

Biology. The Department of Biology offers a dynamic and modern program in biology which prepares students both academically and practically for vocations in science and science-related fields or for entry into graduate studies. The major is designed to present a basic background in modern biology and in the supportive disciplines of chemistry, mathematics and physics, and to provide specialized training selected by the student from a variety of areas. The wide range of faculty expertise and research interest allows the department to offer a curriculum which includes general and advanced courses in plant and animal sciences, marine sciences, genetics and physiology, ecology, molecular biology, microbiology, immunology, endocrinology, entomology, evolution, and systematics. Formal programs of study

within the major include Emphases in Cell and Molecular Biology, Ecology, Evolution and Systematics, Marine Biology, and Zoology. Special studies opportunities with SDSU faculty and scientists at cooperating institutions allow qualified students to gain research experience on an individual basis.

The department offers a specific program of courses to fulfill the state of California's science requirements for the Single Subject Teaching Credential in Science (beginning January 1995) and the current Life Science Teaching Credential. Students successfully completing one of these programs may be certified by the department as having demonstrated subject competency as required in part for acceptance into College of Education single subject credential program.

The department also offers a program leading to the Recombinant DNA Technology Certificate. The purpose of this program is to prepare undergraduate and graduate students for employment in public and private organizations utilizing recombinant DNA technology.

The rapid advances in theoretical and applied biology, the growing demands in health care and the expansion of general interest in and concern for the environment are just a few of the factors which continue to increase society's need for biologists. Some examples: a biology degree is the common precursor for the medical, dental, veterinarian and allied health professions; government agencies involved in environment protection, public health and conservation need ecologists, inspectors, laboratory technicians and wildlife, forest, coast and park managers; government and private agriculture agencies need entomologists and botanists; private companies, government laboratories and universities involved in biotechnology need microbiologists and molecular biologists; zoos, wild animal parks and aquaria need zoologists; the secondary school system needs biology teachers; textbook and scientific supply companies need science majors. Whether your goal is to work in a laboratory or a forest, there is opportunity for fulfillment and growth in the field of biology.

Environmental Health. (No new students are being admitted to this program.) Those who are interested in such problems as solid waste disposal, air pollution, hazardous materials and similar environmental concerns, may want to choose a major in environmental health.

The major includes preparatory coursework in biology, chemistry, mathematics, and physics. Upper division students are exposed to a variety of areas concerned with environmental health such as epidemiology, which studies the transmission, distribution and control of diseases; microbiology, which studies agents of disease; and a course which examines the treatment of water and wastewater.

Employment opportunities for graduates are keeping pace with the growth of public and legislative interest in environmental health and are plentiful in both the public and private sectors. Graduates may find positions in housing and land development, housing inspection, vector control, safety inspection, environmental impact, industrial hygiene, and occupational health.

The Environmental Health program is approved by the California Department of Health Services to satisfy the academic requirements for registration as a specialist. An environmental health graduate may immediately take the State of California examination to become an Environmental Health Specialist. Environmental Health Specialists, also known as public health inspectors, are involved in restaurant inspection, communicable disease investigation, and water and wastewater disposal and management. These individuals, who normally belong to state and national environmental health associations, may also be involved in the areas of food safety, radiation, vector control, and environmental impact.

Microbiology. Microbiology is the study of bacteria, viruses, yeasts, molds, algae and protozoa. These microorganisms are found

associated with plants and animals, in soil, and in fresh and marine waters. Many of the free-living species participate in maintaining the quality of our environment. Certain species affect the health and well-being of plants and animals, including humans, by causing infectious diseases. Microorganisms are often used in the molecular biology laboratory as research tools, for experiments in genetic engineering, and in the manufacture of food and chemicals.

The microbiology major is designed to provide the student with a background in basic biology, microbiology, and the disciplines of chemistry, mathematics and physics. The curriculum includes introductory and advanced courses (most with laboratories) in general and pathogenic microbiology, immunology, virology, physiology, and genetics as well as courses in food and industrial microbiology, marine microbiology, and molecular biology.

Microbiologists find positions with governmental agencies, in university and private research laboratories, in biotechnology, medical and industrial laboratories, in schools as teachers, with scientific supply companies, or with textbook companies. Depending on the situation, a microbiologist may conduct fundamental and applied research, identify disease-causing microorganisms in medical or veterinary specimens, participate in studies of the environment (e.g., soil, ocean, lakes), aid in the manufacture of pharmaceuticals, food, or beverages, or provide quality and safety control. The microbiology major is excellent preparation for entrance into medical, dental, veterinarian, and graduate schools. The Emphasis in Medical Technology and Public Health Microbiology prepares students to become, after a postgraduate internship, licensed medical technologists or certified public health microbiologists.

Biology Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 04011)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." A total of 45 upper division units must be taken, of which 24 must be selected from the General Biology Degree Requirements and the list of courses acceptable for electives. No more than 48 units in biology courses can apply to the degree.

A minor is not required with this major.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Biology Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 04011)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." A total of 36 upper division units must be selected from the General Biology Degree Requirements and the list of courses acceptable for electives.

A minor is not required with this major.

General Biology Degree Requirements

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, and 231; Mathematics 121 and 122, or 150; Physics 180A or 195, 180B or 196 and 197, 182A or 195L, 182B or 196L and 197L. (38-43 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units for the B.A. degree or 36 upper division units for the B.S. degree to include Biology 352, 354, 356 and Chemistry 361A or 560A. Elective courses include all upper division biology courses numbered 350 and above and all upper division chemistry courses. At least two of the electives must be biology laboratory courses (not including Biology 499 or chemistry laboratories) and at least one of these laboratory courses must be an organismal level course selected from Biology 350, 462 and 462L, 470, 514, 515, 520, 524, 525, 528, and 533.

No transfer course will substitute for Biology 352, 354, 356 or as an organismal course without the specific approval of the department.

All courses not included above must have the prior approval of the Department and the substitution filed with the Office of Admissions and Records.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department and be filed with the Office of Admissions and Records.

Emphasis in Cellular and Molecular Biology

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, 231, and 251; Mathematics 121 and 122, or 150; Physics 180A or 195, 180B or 196 and 197, 182A or 195L, and 182B or 196L and 197L. (43-48 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 350, 352, 354, 356, 550 and Chemistry 361A or 560A, 361B or 560B, and 567. Remaining elective courses must be selected from Biology 499, 521, 521L, 549, 551, 551L, 554, 563, 566, 567, 569, 570, 584, 585, 590, 591, 592, 595, 596 (as appropriate), and Chemistry 431.

Other than Biology 352, 354, 356 and Chemistry 361A, only one course in this emphasis may be used for credit in another emphasis offered by the department.

No transfer course will substitute for Biology 350, 352, 354, 356 or 550 without the specific approval of the Emphasis in Cell and Molecular Biology adviser.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department adviser and be filed with the Office of Admissions and Records.

Emphasis in Ecology

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, and 231; Mathematics 121 and 122, or 150; Physics 180A or 195, 180B or 196 and 197, 182A or 195L, and 182B or 196L and 197L. (38-43 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 352, 354, 354L, 356 and Chemistry 361A or 560A. At least 15 elective units must be selected from Biology 358, 359, 454, 496, 506, 512, 516, 517, 519, 527, 535, 539, 540, 543, 560, 563, 596, 597A, and 597B. Remaining elective courses include Biology 350-362, 454-499, and all 500-level biology and upper division chemistry courses. The above 36 upper division units must include an organismal course and two biology upper division laboratory courses.

Other than Biology 352, 354, 356 and Chemistry 361A, only one course in this emphasis may be used for credit in another emphasis offered by the department.

No transfer course will substitute for Biology 352, 354, 354L or 356 without the specific approval of the Emphasis in Ecology adviser.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department adviser and be filed with the Office of Admissions and Records.

Emphasis in Evolution and Systematics

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, and 231; Mathematics 121 and 122, or 150; Physics 180A or 195, 180B or 195L, 182A or 196 and 197, and 182B or 196L and 197L. (38-43 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 352, 354, 356, 510, and Chemistry 361A or 560A. At least 12 elective units must be selected from Biology 358, 462, 462L, 470, 471, 506, 512, 520, 523, 524, 525, 530, and 596 courses approved by the Emphasis in Evolution and Systematics adviser. Remaining elective courses include Biology 350-362, 454-499, all 500-level biology courses and all upper division chemistry courses. At least one elective must be an organismal level course described for the major and at least two electives must be biology laboratory courses.

Other than Biology 352, 354, and 356, and Chemistry 361A, only one course used in this emphasis may be used for credit in another emphasis offered by the department.

No transfer course will substitute for Biology 352, 354, 356 or 510 without the specific approval of the Emphasis in Evolution and Systematics adviser.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department adviser and be filed with the Office of Admissions and Records.

Emphasis in Marine Biology

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, and 230 or 231; Mathematics 121 and 122, or 150; Physics 180A or 195, 180B or 196 and 197, 182A or 195L, and 182B or 196L and 197L. (38-43 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 352, 354, 356, Chemistry 361A or 560A, and an organismal level course selected from Biology 514 or 515 or 520 (15 units). At least 11 upper division units must be selected from Biology 512, 513, 513L, 514, 515, 516, 517, 518, 519, and 520. The remaining minimum ten upper division units include all biology courses numbered 350 and above (except Biology 452), all upper division chemistry courses and a maximum of three units from Economics 454, Geography 504 and 576, Geological Sciences 540, 545 and 548, Oceanography 541 or 561. At least three courses taken in the major must be biology laboratory courses (not including Biology 499).

Other than Biology 352, 354, 356, and Chemistry 361A, only one course in this emphasis may be used for credit in another emphasis offered by the department.

No transfer course will substitute for Biology 352, 354 or 356 without the specific approval of the Emphasis in Marine Biology adviser.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department adviser and be filed with the Office of Admissions and Records.

Emphasis in Zoology

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, and 231; Mathematics 121 and 122, or 150; Physics 180A or 195, 180B or 196 and 197, 182A or 195L, and 182B or 196L and 197L. (38-43 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 352, 354, 356, Chemistry 361A or 560A and at least 15 units selected

from Biology 462, 462L 470, 506, 512, 515, 516, 520, 523, 524, 525, 527, 540, 560, 577, 586, 588, and 596 courses approved by the Emphasis in Zoology adviser. Of these 15 units, a minimum of three units must be selected from Biology 462, 462L, 506, 586, 515, 516, or 586; a minimum of three units from Biology 470, 512, 520, 523, 524, or 525, and a minimum of three units from Biology 527, 540, 560, 577, 588 and 596 as approved by the Emphasis in Zoology adviser. The remaining elective courses include Biology 350-362, 454, 499, all 500-level biology courses, and all upper division chemistry courses. The above 36 upper division units must include an organismal course and two upper division biology laboratory courses as described in the major.

No transfer course will substitute for Biology 352, 354 or 356 without the specific approval of the Emphasis in Zoology adviser.

Other than Biology 352, 354, 356 and Chemistry 361A, only one course in this emphasis may be used for credit in another emphasis offered by the department.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department adviser and be filed with the Office of Admissions and Records.

Environmental Health Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 1214)

Application for admission to this degree program has been suspended for the 1995-96 academic year.

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, and 231; Mathematics 121 and 122, or 150; Physics 180A or 195, 182A or 195L, 180B or 196 and 197, and 182B or 196L and 197L; Psychology 101 or Sociology 101. (41-46 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 350, 464A, 464B, 465, 466, 468A, 468B, 561, and 586; Civil Engineering 555 (prerequisite waived for students in this major); Sociology 410 or Psychology 340 and at least one course selected from Biology 584, Community Health Education 345, Public Administration and Urban Studies 320. Remaining elective courses needed to satisfy the minimum of 36 units must have the prior approval of the environmental health adviser.

Students in this major must have a program of study approved by the Environmental Health adviser (LS-135).

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department and be filed with the Office of Admissions and Records.

Microbiology Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 04111)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in biology courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, 231, and 251; Mathematics 121 and 122, or 150; Physics 180A or 195, 182A or 195L, 180B or 196 and 197, and 182B or 196L and 197L. (43-48 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. It is recommended that students select French, German or Russian to satisfy this requirement. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 28 upper division units to include Biology 350, 352, 354, 356, 585, and Chemistry 361A; at least one laboratory course selected from Biology 521 and 521L, 528 or 584 and 592; and at least three additional units selected from Biology 513, 513L, 514, 549, 551, 551L, 591, and Chemistry 361B.

No transfer course will substitute for Biology 352, 354, or 356 without the specific approval of the Microbiology adviser.

All courses not included above must have the prior approval of the Department and the substitution filed with the Office of Admissions and Records.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department and be filed with the Office of Admissions and Records.

Microbiology Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 04111)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, 231, and 251; Mathematics 121 and 122, or 150; Physics 180A or 195, 182A or 195L, 180B or 196 and 197, and 182B or 196L and 197L (43-48 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 40 upper division units to include Biology 350, 352, 354, 356, 549, 550, 485 or 585, and Chemistry 361A and 361B; at least one laboratory course selected from Biology 521 and 521L, 528, 584 and 592; and at least six additional units selected from Biology 499 (maximum of three units), 513, 521, 521L, 528, 551, 551L, 554, 584, 591, 592, 593, 594, and Chemistry 567.

No transfer course will substitute for Biology 352, 354, or 356.

All courses not included above must have the prior approval of the Department and the substitution filed with the Office of Admissions and Records.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department and be filed with the Office of Admissions and Records.

Emphasis in Medical Technology and Public Health Microbiology

The emphasis in medical technology and public health is a program of required and elective courses which prepares students for the Public Health Microbiologist and Clinical Laboratory Technologist academic certification and licensing examinations.

Preparation for the Major. Biology 201, 202, and 215; Chemistry 200, 201, 231, and 251; Mathematics 121 and 122, or 150; Physics 180A or 195, 182A or 195L, 180B or 196 and 197, and 182B or 196L and 197L (43-48 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved courses with a grade of C (2.0) or better.

Major. A minimum of 39 upper division units to include Biology 350, 352, 354, 356, 549, 582, 584, 485 or 585, 592, and Chemistry 361A and 361B. In consultation with the medical technology adviser,

the remaining minimum of six elective units must be selected from Biology 528, 550, 554, 586, 588, 594, and Chemistry 567.

All courses not included above must have the prior approval of the Department and the substitution filed with the Office of Admissions and Records. After completion of the degree requirements a one-year internship at an approved laboratory must precede the examination for licensing or certification for medical technologists.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department and be filed with the Office of Admissions and Records.

Biology Major

For the Single Subject Teaching Credential in Science
With the B.S. Degree in Applied Arts and Sciences
(Major Code: 04011)

This program is subject to the approval of the Commission on Teacher Credentialing.

One of the requirements for acceptance into the College of Education's postgraduate credential program is to either pass the appropriate Praxis examination or complete an approved academic program. The Single Subject Teaching Credential in Science program described below satisfies the academic requirements for a student planning to teach biology at the secondary level. Entrance into the postgraduate credentialing program in part requires certification by this department. In addition to the completion of the academic program, this certification also requires the earning of a B or better in Biology 452 or its equivalent and all courses taken as a postbaccalaureate student.

Preparation for the Major. Biology 201, 202, and 215; Astronomy 101; Chemistry 200, 201, and 231; Geography 103; Geological Sciences 100, Mathematics 121 and 122, or 150; Physics 180A or 195, 180B or 196 and 197, 182A or 195L, 182B or 196L and 197L (47-52 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 units to include Biology 352, 354, 356, 452, Chemistry 361A, Oceanography 541 and at least one course from each of the following groups: Biology 560, 563, or 590 (physiology); Biology 462 and 462L, 470, 515, 520, 523, 524, 525 or 527 (animal biology); Biology 358, 514 and 533 (plant biology); Chemistry 361A. The remaining four to six units must include one or more courses selected from Biology 499, a biology laboratory course acceptable on the major and Chemistry 361B (the recommended combination includes Biology 499 to gain research experience and Chemistry 361B to attain the 20 units of chemistry required for the supplementary credential in chemistry). Biology 496 and 596 courses with the appropriate contents may satisfy one or more group requirements. These and any other courses not listed above must have the prior approval of the Department and the department's credential adviser and must be filed with the Office of Admissions and Records.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department and be filed with the Office of Admissions and Records.

All courses not included above must have the prior approval of the Department and the substitution filed with the Office of Admissions and Records.

Biology Minor

Biology 100 and 100L or 202 are prerequisites to the biology minor and do not count towards the units in the minor; some areas include additional prerequisites not counted towards the minor.

The minor in biology consists of a minimum of 16-22 units to include Biology 201 and at least 12 units of upper division courses selected from one of the areas below. At least one of the selected courses must be a biology laboratory course numbered 350 or above. A maximum of three units of Biology 499 may be included in the minor with prior approval of the department. For courses requiring Biology 215 as a prerequisite, a college level course in statistics may be acceptable with the approval of the instructor.

Animal Behavior

Required: Biology 527; electives: Biology 307, 324, 330, 339, 354, 354L, 462, 506, 524, Anthropology 500 and Psychology 417. (16 units)

Biology for Physiological Psychology

Required: Biology 321, 336, 436, and 570; electives: Biology 307 or 339. At least one college course in chemistry is strongly recommended to complement this minor. (16 units)

Cell Biology and Genetics

Prerequisites: Chemistry 200, 201, 231 and 361A or 560; electives: Biology 350, 352, 356, 521, 521L, 549, 550, 563, 566, and 590. (16 units)

Ecology

Required: Biology 354; electives: Biology 315, 324, 330, 339, 350, 354L, 358, 359, 454, 462, 462L, 513, 535, 539, and 540. (16 units)

Elementary Education

Required: Biology 315, 330, 330L, 336, 436, and at least two units of Biology 499. A college level course in chemistry is strongly recommended to complement this minor. (17 units)

Evolutionary Biology

Required: Biology 319 or 354; electives: Biology 354L, 359, 462, 462L, 470, and 506. (16 units)

Human Biology

Required: Biology 336 and a course in college chemistry, Biology 261 or 590; electives: Biology 150, 307, 321, 352, 362, 577, and 590. (16 units)

Marine Biology

Required: Biology 514 or 515 or 520; electives: Biology 324, 513, 514, 515, 517, 519, 520, and 524. (16 units)

Plant Biology

Required: Biology 358; electives: Biology 358, 362, 514, 528, 530, 533, and 563. (16 units)

Secondary Education

Prerequisite: College level course in statistics. Required: Biology 452 and a college level course in statistics; electives (at least one course from each group): Biology 336, 560, 590; Biology 354; Biology 358, 514 or 533; Biology 462, 462L, 470, 520, 523, 524, 525 or 527. Basic courses in genetics, microbiology, and organic chemistry are recommended. (19-22 units)

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Recombinant DNA Technology Certificate

Matriculated students must apply for admission to the program before completion of 15 certificate units and must complete all prerequisite and required courses with a GPA of 2.5 or better and required courses Biology 550, 551, and 551L with grades of B or better.

The certificate requires 17 prerequisite units-Biology 350, 352, 356; Chemistry 251; and 28-29 certificate units-Biology 498 or 499 (5 units) as approved by the certificate adviser, 550, 551, and 551L; Chemistry 560A-560B or 361A-361B, and 567; and two electives from

Biology 549, 566, 569, or 585. Biology 550, 551, and 551L must be taken at San Diego State University, either in residence or through Open University. Upper division prerequisite and certificate units which may be applied to the major for B.S. degrees in biology, chemistry (biochemistry emphasis), and microbiology are 42-43, 37, and 20 units, respectively.

Courses in the certificate may not be counted toward the minor.

Courses

LOWER DIVISION COURSES

100. General Biology (3) I, II

Prerequisite recommended: Concurrent registration in Biology 100L.

A beginning course in biology stressing processes common to living organisms. Not open to biological sciences majors; see Biology 201, 202.

100L. General Biology Laboratory (1) I, II

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Biology 100.
A laboratory course in biology stressing processes common to living organisms. Not open to biological sciences majors; see Biology 201, 202.

101. World of Animals (3)

Animal adaptation and diversity and their relationship to the development of evolutionary theory. Not open to biological sciences majors. (Formerly numbered Biology 110.)

101L. World of Animals Laboratory (1)

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Biology 101.
Laboratory course on evolution and diversity of animals involving field trips and laboratory investigations. Not open to biological sciences majors. (Formerly numbered Biology 110L.)

130. World of Plants (3)

Basic structure and function of plants with emphasis on interrelationships of plants and man. Not open to biological sciences majors.

130L. World of Plants Laboratory (1)

Prerequisite: Credit or concurrent registration in Biology 130.
Observation, experimentation and demonstration of plants and their activities, emphasizing practical applications. Topics include plant cell structure and division, photosynthesis, mineral nutrition, morphology, anatomy, asexual and sexual reproduction, growth and development, and diversity. Not open to biological sciences majors.

150. Human Anatomy (4) I, II

Two lectures and six hours of laboratory.
Prerequisite: An introductory course in high school biology or zoology.
Gross and microscopic anatomy of the organ system of the human body.

200. Concepts in Biology (3) I

Two lectures and one hour of discussion.
Prerequisite: First semester freshman standing.
Concepts and emphases of modern biology to include nature and methods of science, relationship between structure and function, homeostasis, genetic continuity, evolution, systematics and ecology. Designed for and enrollment limited to first semester freshmen whose preparation for the major includes Biology 201. Students with credit in Biology 200 and 201 will receive a total of four units toward a degree.

201. Principles of Organismal Biology (4) I, II

Three lectures and three hours of laboratory.
Principles of biology covering all organisms, including systematics and diversity of bacteria, protista, fungi, plants and animals, and concepts of physiology, reproduction, development and differentiation, ecology, and the causes of the endangerment of a species. (Formerly numbered Biology 200B.)

202. Principles of Cell and Molecular Biology (4) I, II

Three lectures and three hours of laboratory.
Prerequisite: Chemistry 200.

Principles of biology applying to all organisms, including cell structure, membrane transport, energy metabolism, cell division, classical and molecular genetics, recombinant DNA, population genetics, mechanisms of evolution, and the basis of classification. (Formerly numbered Biology 200A.)

210. Fundamentals of Microbiology (4) I, II

Two lectures and six hours of laboratory.

Prerequisites: Chemistry 100 and 130, or 200 and 201. Students with credit in Biology 120 may enroll but will receive only one additional unit of credit.

A course for nursing and foods and nutrition majors. Study of the microorganisms of the environment, including the disease-producing organisms, their actions and reactions. Not open to biological sciences majors; see Biology 350.

215. Quantitative Biology (3) I, II

Two lectures and three hours of laboratory.

Prerequisites: Mathematics 121 or 140; credit or concurrent registration in Biology 201.

Methods and experience in defining and solving quantitative problems in biology, including the design of experiments, and parametric and nonparametric statistical techniques. Students with credit or concurrent registration in the following lower division courses will be awarded a total of four units for the two (or more) courses: Biology 215, Economics 201, Engineering 140, Mathematics 119, 250, Political Science 201, Psychology 270, and Sociology 201.

224. Marine Topics at Sea World (1) (Offered only in Extension)

Prerequisite: College course in biology.

Marine topics of current interest. May be repeated with different topic and consent of instructor for maximum credit four units. See Extension catalog for specific content.

248. Careers in Biological Sciences (1) Cr/NC

Career opportunities in biological sciences. Specialists in major biological areas will present information about their fields and how best to prepare for careers.

250. Preprofessional Topics (1) Cr/NC

- A. Topics in Medicine.
- B. Topics in Dentistry.
- C. Topics in Veterinary Medicine.

Designed to expose the preprofessional student to the profession of his/her choice through speakers and selected readings. Emphasis on alternatives and meeting stresses as a preprofessional student.

Maximum combined credit three units for 250A, 250B and 250C.

261. Human Physiology (4) I, II

Three lectures and three hours of laboratory.

Prerequisites: Chemistry 100; Biology 150; credit or concurrent registration in Chemistry 130.

Human function viewed from cellular through organ system levels of organization. Intended primarily for prenursing students. Not open to biological sciences majors; see Biology 560 or 590. Students with credit in Biology 261 and 336 will receive a total of four units towards graduation.

277. Medical Terminology (2) I

Prerequisite: Biology 201.

Words and word components used in medical and allied medical practice translated, investigated, and applied.

291. Biology Laboratory (1) I, II

Prerequisites: Recommendation by department and consent of instructor.

Special course to allow makeup of program laboratory deficiencies. Student will be assigned to a laboratory section of the appropriate course.

- A. Laboratory for Biology 201.
- B. Laboratory for Biology 202.
- C. Laboratory for Biology 215.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

299. Special Study (1-2)

Individual research experience and interaction with researchers at an introductory level. Projects involve approximately 45 hours of laboratory or fieldwork per unit and a research report. Hours are flexible and arranged between the student and the researcher. Maximum credit four units.

UPPER DIVISION COURSES (Intended for Undergraduates)

307. Biology of Sex (3) I, II, S

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences.

Reproductive adaptations in humans, and comparatively in other species. Topics include sex differences, mate choice and mating behavior, fertility regulation, fertilization and embryonic development, sex ratios, parental investment, effects of aging, and life history strategies. Not applicable to the biological sciences majors.

315. Ecology and Human Impacts on the Environment (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning.

Ecological characteristics of natural ecosystems and basic effects of human society upon those systems, emphasizing resource management, food production, global environmental problems, and future directions. Not applicable to biological sciences majors.

318. The Origins of Life (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning. A college level course in chemistry or physics.

Theories of chemical evolution with emphasis on multidisciplinary aspects involving geology, geochemistry, cosmochemistry and molecular biology. (Formerly numbered Natural Science 431.)

319. Evolution (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Modern theory of organic evolution with emphasis on processes involved as they relate to past, present, and future evolution of mankind. Not open to biological sciences majors; see Biology 354 or 471.

320. Dinosaurs (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Rise and fall of dinosaurs, their biology, and evolutionary relationships. Not applicable to biological sciences majors.

321. Human Heredity (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Selected principles of human inheritance with emphasis on relationships to other fields of human studies. Not open to students with credit in Biology 160 or to biology or microbiology majors; see Biology 352.

324. Life in the Sea (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Overview of complexity of marine life. Diverse interactions of organisms in the intertidal zone, over the continental shelves and in the open oceans. Current controversies concerning the marine biosphere. Not applicable to the biological sciences majors.

325. How Animals Work (3)

Prerequisites: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Adaption of animals, including insects, fish, birds and mammals, to their environment. Topics explore various physiological concepts utilized by animals to survive under strikingly different conditions. Not open to biological sciences majors, see Biology 560.

330. Natural History of Animals and Plants (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Ecology, behavior, and diversity of animals and plants and their interactions; the evolution of natural history characteristics. Emphasis on local species. Not applicable to the biological sciences majors.

330L. Natural History of Animals and Plants Laboratory (1)

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 330.

Laboratory in natural history of animals and plants, with emphasis on field observations of the local species. Not applicable to the biological sciences majors.

336. Principles of Human Physiology (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Systems of the human body, their interrelationships and control systems which regulate them. Not open to students with credit in Biology 261, 410, 560 or 590. Not applicable to the biological sciences majors.

339. Sociobiology (3)

Prerequisites: Biology 100 or 101 or Anthropology 102 or Psychology 101, and completion of the General Education requirement in Foundations II.A.2. Life Sciences.

Biological bases of social behavior in animals with emphasis on altruism, aggression, territoriality, mating systems, mate choice, parental care, communication, cooperative hunting, and predator avoidance. Not applicable to biological sciences majors.

340A. Preventive Dentistry Program (1-2) Cr/NC

Four hours of clinical and other activities per unit.

Prerequisites: Upper division standing and active pre dental file in the Preprofessional Health Advising Office.

Participation in clinic, dental observation, marketing activities and two field trips. Maximum credit four units. Not applicable to biological sciences majors.

340B. Preventive Dentistry Leaders (2-4)

Four hours of activity per unit.

Prerequisites: Biology 340A and consent of instructor.

Supervision of one component of Preventive Dentistry Program. Maximum credit four units. Not applicable to biological sciences majors.

341. The Human Body (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences.

Survey of human body with emphasis on intricacy of design and integration of various organ systems. Not open to nursing, physical education, or biological sciences majors, or to students with credit in any college level human physiology or anatomy course.

350. General Microbiology (4) I, II

Two lectures and six hours of laboratory.

Prerequisites: Biology 201, 202, and 215; Chemistry 231.

Actions and reactions of microorganisms in response to their environment, both natural and as changed by other organisms, including man. Also includes an introduction to pathogens.

352. General Genetics (3) I, II

Prerequisites: Biology 201, 202, and 215; credit or concurrent registration in Chemistry 361A.

Principles of transmission genetics, population genetics and evolution, and molecular genetics. Not open to students with credit in Biology 351, 357 or 546.

354. Ecology and Evolution (3) I, II

Prerequisites: Biology 201 and 215.

Fundamental concepts in population and community ecology and evolutionary biology. Not open to students with credit in Biology 353.

354L. Experimental Ecology and Evolution (2)

One hour of discussion and three hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 354.

Methods of research in ecology and evolutionary biology; approaches to analysis of populations and communities.

356. Cell Biology (5) I, II

Three lectures and six hours of laboratory.

Prerequisites: Biology 201, 202, and 215; Chemistry 361A; Physics 180A, 180B, 182A, and 182B.

Structure and function of prokaryotic and eukaryotic cells and cell organelles.

358. California Flora (3)

Two lectures and three hours of laboratory (Field).

Prerequisite: Biology 201.

Local native and naturalized plants in San Diego County and selected areas of California. Identification of plants and plant communities.

359. Endangered and Extinct Species (3)

Prerequisite: A college course in biological sciences.

Examination of reasons that some plants and animals become rare, endangered and extinct. Emphasis on man's activities as pressure that often leads to extinction.

362. Plants, Medicines, and Drugs (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Medicinal plants, toxic-poisonous plants, herbal medicines, psychoactive plants, preparation of medicines and mechanisms of action; current research results on medicinal plants and drugs used in diseases such as diabetes, cancer, and heart diseases.

436. Human Physiology Laboratory (1)

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 336 or 590.

Laboratory work in human physiology. Not open to students with credit in Biology 261. (Formerly numbered Biology 336L.)

452. Biology Concept Development and Integration (3)

Two lectures and three hours of activity.

Prerequisite: Senior standing, or participation in a life sciences single subject credential program.

Development and integration of biological science content knowledge, introduction to learning theory, and transformation of knowledge. Designed for students preparing for the single subject teaching credential in life sciences.

454. Conservation of Wildlife (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Global ecosystems and their dynamics, with emphasis on sustainable human use and preservation and biodiversity.

462. Entomology (3)

Prerequisite: Biology 201.

Morphological and behavior adaptations, natural history, and overall importance of insects.

462L. Entomology Laboratory (1)

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 462. External and internal structure of insects; insect classification.

464A-464B. Principles of Environmental Health (3-3)

Prerequisite: Biology 202. Recommended: Biology 350.

General principles of environmental sanitation, including the relationship of the various aspects of physical environment to preventive medicine; the provision of clean air and water, proper waste disposal, safe food supply, and adequate habitation.

465. Field Orientation in Environmental Health (1)

Forty hours of fieldwork.

Prerequisites: Biology 350 and consent of Environmental Health Adviser.

Five days accompanying Environmental Health Specialists of the San Diego County Department of Health Services on their field rounds. Course satisfies state requirements for field experience for Environmental Health majors.

466. Environmental Health Administration (3)

Concepts of organization and administration applied to environmental health; factors affecting these at the local, national and international levels.

468A-468B. Epidemiology (2-2)

Prerequisite: Biology 350.

Study of the transmission, distribution, and control of infectious and noninfectious diseases in the community.

470. Biology of Vertebrates (4)

Three lectures and three hours of laboratory.

Prerequisite: Biology 354.

An introductory course in the biology of the vertebrates with emphasis on the vertebrate organism as a whole; anatomy, physiology, development, and evolution.

471. Analysis of Evolutionary Criticism (3)

Prerequisite: Upper division standing in physical or life sciences.

Evolutionary theory examined through study of criticisms against it. Fringe science ideas examined for value as object lessons.

485. Principles of Immunology (2)

Prerequisite: Biology 202.

Basic areas of immunology to include inflammation, generation of immune response, antibody production, lymphocyte development and function, hypersensitivities and AIDS, major histocompatibility complex and cytokines. Designed to give a basic background in the immune system. Note open to students with credit in Biology 585.

496. Experimental Topics (1-4)

Selected topics. May be repeated once with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

498. Laboratory Experience in Modern Industrial Technology (1-5) Cr/NC I, II

Up to 20 hours per week in academic year, 40 hours per week in summer or winter sessions.

Prerequisites: Fifteen upper division units in biological sciences with grades of A or B and consent of instructor.

Practical laboratory experience in local industrial or SDSU campus laboratories emphasizing current technology. Maximum credit five units applicable to Recombinant DNA Technology certificate. Does not apply to biological sciences majors.

499. Special Study (1-3) I, II

Prerequisites: Upper division status in good standing and consent of instructor.

Individual research experience and interaction with researchers, on or off campus. Projects involve a total of approximately 45 hours of laboratory or fieldwork per unit and a research report. Hours are flexible and arranged between student and researcher. Maximum credit six units. Maximum six units applicable to the biology major for any combination of Biology 499, and Chemistry 499. Maximum three units applicable to the microbiology major or environmental health major for any combination of Biology 499 and Chemistry 499.

**UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)****506. Special Topics in Entomology (3-4)**

Prerequisite: Biology 462.

Treatment of some aspect of entomology, such as biological control, microbial control or forest entomology, not covered in regularly scheduled courses. See Class Schedule for specific content. Maximum credit nine units. Maximum credit six units applicable to a master's degree. (Formerly numbered Biology 506A.)

508. Coevolution (3)

Prerequisite: Biology 354.

Coevolution in interspecific interactions, like herbivory, predation, parasitism, competition, pollination, and mimicry.

510. Evolutionary Mechanisms (3)

Two lectures and three hours of laboratory.

Prerequisites: Biology 352 and 354.

Concepts in population genetics, quantitative genetics, adaptation, speciation, and macroevolution required to understand the mechanisms of evolution.

512. Evolution and Ecology of Marine Mammals (3)

Two lectures and three hours of laboratory.

Prerequisite: Biology 354.

Biology of marine mammals to include pinniped, cetacean and sirenian evolution, diet and foraging strategies, social organization, reproductive strategies, echolocation, diving physiology, and conservation.

513. Marine Microbiology (2)

Prerequisites: Biology 350 or an introductory course in microbiology and consent of instructor.

Microbiological population of estuary and ocean waters; interrelationships with other organisms and the physical and chemical environment.

514. Marine Plant Biology (4)

Three lectures and three hours of laboratory.

Prerequisite: Biology 201.

Biology of algae and seagrasses, including identification, life histories, evolution, morphology, physiology, and ecology.

515. Marine Invertebrate Biology (4)

Two lectures and six hours of laboratory.

Prerequisite: Biology 201.

Structure and function, ecology, behavior, physiology and phyletic relationships of marine invertebrate animals.

516. Intertidal Ecology (3-4)

Three units = Three lectures per week.

Four units = Three lectures and three hours of laboratory.

Prerequisite: Biology 354 or 515.

Intertidal ecology with emphasis on marine invertebrates. Abiotic and biotic characteristics of rocky coasts, sandy beaches, and muddy shores with discussion of adaptive strategies for survival in intertidal environment.

517. Marine Ecology (4)

Two lectures and six hours of laboratory.

Prerequisite: Biology 354 or 515.

Ecological concepts as applied to pelagic and benthic marine organisms and their environment. Field and laboratory experience in oceanographic techniques, particularly the coastal environment.

519. Aquaculture (3)

Prerequisite: Biology 201.

Principles and practices of the farming of aquatic organisms.

520. Ichthyology (4)

Two lectures and six hours of laboratory.

Prerequisite: Biology 201.

Identification, systematics, evolution, structure, physiology, behavior and ecology of fishes.

521. Advanced General Microbiology (2)

Prerequisites: Biology 350 or an introductory course in microbiology and consent of instructor.

Taxonomy, comparative physiology and ecology of representative microorganisms found in various natural environments.

521L. Advanced General Microbiology Laboratory (2)

Six hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 521.

Methods and procedures for the selective isolation and characterization of important groups of soil and water bacteria.

523. Herpetology (4)

Three lectures and three hours of laboratory.

Prerequisite: Biology 201.

Origin, evolution, distribution and systematics of amphibians and reptiles of the world.

524. Ornithology (4)

Two lectures, six hours of laboratory or field excursions, and a field project.

Prerequisite: Biology 201.

Study and identification of birds, especially those of the Pacific Coast and the San Diego region.

525. Mammalogy (4)

Two lectures and six hours of laboratory.

Prerequisite: Biology 201.

Evolution, systematics, distribution and ecology of mammals of the world.

527. Animal Behavior (4)

Three lectures and three hours of laboratory.

Prerequisites: Biology 215; Biology 201 or Psychology 211 and 260 for psychology majors.

Biological bases of animal behavior with emphasis on the ethological approach, including the evolution and adaptive significance of behavior.

528. Mycology (4)

Two lectures and six hours of laboratory.

Prerequisite: Biology 201.

The structure, food relations, and classification of fungi.

530. Plant Systematics (4)

Two lectures and six hours of laboratory, field trips.

Prerequisite: Biology 201.

Plant description, identification, classification, and nomenclature with emphasis on evolutionary patterns, interdisciplinary data acquisition, and phylogenetic analysis.

533. Plant Structure and Function (3)

Two lectures and three hours of laboratory.

Prerequisite: Biology 201.

Relationships between plant structure and function. Morphology and anatomy of vascular plants considering specific function of plant organs. Approaches to solve plant morphological problems. Techniques of plant anatomy.

535. Plant Ecology (4)

Three lectures and three hours of laboratory.

Prerequisite: Biology 201.

Plant adaptation and response to living and non-living environment including aspects of plant evolution, demography, ecophysiology, community and ecosystem dynamics and soil-plant relationships. Terrestrial systems emphasized.

539. Restoration Ecology (3)

Two lectures and three hours of laboratory.

Prerequisite: Biology 354.

Ecological concepts pertaining to the restoration of disturbed ecosystems, including plant establishment, stability of man-made ecosystems, below-ground biota, mineral cycling, succession, and other organisms and processes on disturbed lands.

540. Conservation Ecology (3)

Two lectures and three hours of laboratory.

Prerequisite: Biology 354.

Human impacts on ecosystems, the resultant endangerment and extinction of plant and animal species, and strategies for the protection and recovery of threatened forms.

543. Ecological Methods (1-3)

Three hours of laboratory per unit.

Prerequisites: Biology 215 and 354 or 454.

Modular course in vegetation sampling, ecophysiological methods, plankton sampling, benthic community/population analysis, and ecological data analysis. See Class Schedule for specific content. Maximum credit three units.

545. Limnology (4)

Three lectures and three hours of laboratory.

Prerequisite: Biology 354.

Biological, chemical, and physical considerations of inland waters.

549. Microbial Genetics and Physiology (3)

Prerequisites: Biology 350 and 352; Chemistry 361A.

Physiology of microbial growth, bacterial structure and function, genetics of bacteriophages and bacteria.

550. Prokaryotic and Eukaryotic Molecular Biology (4) I, II

Prerequisites: Biology 352 and Chemistry 361A, 361B. Recommended: Biology 356.

Gene structure, organization and regulation in prokaryotes and eukaryotes. Mechanisms of RNA and protein synthesis. Dynamic aspects of the genome.

551. Recombinant DNA (3) I, II

Prerequisites: Chemistry 361A; Biology 350, 352, 356, and 550.

Theory and practice of recombinant DNA techniques.

551L. Recombinant DNA Laboratory (2)

Six hours of laboratory.

Prerequisites: Biology 350 and 549 or 550.

A laboratory course in recombinant DNA techniques.

554. Molecular Virology (2)

Prerequisite: Biology 356. Recommended: Biology 550.

Molecular aspects of structure, genetics, and replication of viruses, virus-host interactions, pathogenesis of virus infections, diagnostic virology, and antiviral vaccines and drugs; emphasis on human pathogens.

560. Animal Physiology (3)

Prerequisites: Biology 201 and 202; Chemistry 361A; Physics 180B and 182B.

Physiology of vertebrate and invertebrate animals with emphasis on diversity of solutions to physiological problems and on functional integration of organ systems.

561. Radiation Biology (3)

Prerequisites: Physics 180B and 182B; Biology 100 or 201 and 202. Recommended: Biology 356.

Principles underlying radiological reactions of ionizing radiations. Effects of ionizing radiations at the biochemical, cell, organ, and organism levels.

561L. Radiation Biology Laboratory (2)

Six hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 561.

The laboratory determination of the effects of ionizing radiation on biological systems.

563. Plant Physiology (3)

Prerequisites: Biology 201 and 202; Chemistry 361A or 560A.

Activities of plants, including photosynthesis, ion transport, translocation, water relations, growth and development.

566. Plant Molecular Biology (2)

Prerequisites: Biology 352 and Chemistry 361A. Recommended: Biology 550 or 563.

Problems in plant growth, development, and adaptation from modern molecular biology perspective including techniques of plant biotechnology and applications of genetic engineering to agriculture.

567. Molecular Endocrinology (3)

Prerequisite: Biology 356.

Molecular mechanisms of endocrine hormone biosynthesis, secretion, and actions.

569. Molecular Pharmacology (3)

Prerequisite: Biology 356. Recommended: Biology 567.
Molecular mechanisms of pharmaceutical agents. Emphasis on drugs that interact with nervous and endocrine systems.

570. Neurobiology (3)

Prerequisite: Biology 356 or 590 or Psychology 260.
Structure and function of the nervous system to include cellular and molecular mechanisms underlying neuronal excitability and synaptic function, nervous system development, cellular and systems analysis of sensory, motor and higher brain functions. Emphasis on experimental approaches.

577. Embryology (4)

Two lectures and six hours of laboratory.
Prerequisites: Biology 201 and 202.
Studies in comparative gametogenesis, morphogenesis, and reproductive physiology.

582. Hematology (3)

Two lectures and three hours of laboratory.
Prerequisite: Biology 350.
Study of normal and pathological blood with chemical, physical and microscopic methods.

584. Medical Microbiology (2)

Prerequisites: Biology 350 and 356.
Discussion of major bacterial and viral pathogens; molecular mechanisms of pathogenesis; microbial toxins and antimicrobial agents; immune response to microbial infections; biochemical and molecular diagnostics. Not open to students with credit in Biology 589.

585. Cellular and Molecular Immunology (3)

Prerequisites: Biology 202 and Chemistry 361A. Recommended: Biology 352 and 356.
Cellular and molecular aspects of the immune response. Genetics of immunoglobulins, major histocompatibility complex, lymphocyte development and their manifestations on immune responsiveness, lymphokines immunopathologies including AIDS, and contemporary immunological techniques. Not open to students with credit in Biology 485.

586. Medical Entomology (4)

Three lectures and three hours of laboratory.
Prerequisite: Biology 201.
Role of insects and other arthropods in the transmission and causation of human diseases and the important diseases of domesticated animals.

588. Parasitology (4)

Two lectures and six hours of laboratory.
Prerequisite: Biology 201.
Study of animal parasites with special reference to those of humans. Laboratory including identification of important human parasites, and collection and preservation of local forms.

590. Physiology of Human Systems (4)

Three lectures and one hour of discussion.
Prerequisites: Physics 180B and 182B; Biology 201 and 202. Recommended: Chemistry 361A and 361B or Biology 356.

Human physiology presented at cellular and organ system levels: membrane transport, nerve excitation, muscle contraction, cardiovascular physiology, kidney function, hormone function, reproduction and digestion. For students majoring in a natural science or engineering.

591. Advanced Immunology (3)

Six hours of laboratory.
Prerequisites: Biology 356 and 585; Chemistry 361B.
Analysis of selected immunological topics using recent literature articles and reviews.

592. Cell and Molecular Biology Laboratory (2)

Six hours of laboratory.
Prerequisites: Biology 350 and 356.
Laboratory course in advanced techniques in microbiology and cell and molecular biology. Not open to students with credit in Biology 589.

593. Scanning Electron Microscopy (2)

One lecture and three hours of laboratory.
Prerequisite: Biology 201.
Theory and use of a scanning electron microscope for biological research. Laboratory is project oriented.

594. Radioisotope Techniques in Biology (4)

Two lectures and six hours of laboratory.
Prerequisites: Physics 180B and 182B; Biology 100 or 201 and 202. Recommended: Biology 356 and Chemistry 251.
Principles and application of radioisotopes in biology. Radioisotope measurement, safe handling, tracer and radioautography techniques.

595. Computers in Biomedical Research (3)

Prerequisite: Biology 356 or 590. Recommended: Computer Science 107.
Application of micro- and minicomputers to tasks encountered by biomedical scientists in research laboratories (data acquisition and reduction, experiment control) and by physicians in medical care delivery (noninvasive imaging, clinical laboratory automation, patient file processing).

596. Special Topics in Biology (1-3)

Prerequisite: Consent of instructor.
Advanced selected topics in modern biology. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree. Additional units acceptable with the approval of the graduate adviser.

597A. Univariate Statistical Methods in Biology (3)

Two lectures and three hours of laboratory.
Prerequisites: Biology 215, and 350 or 352 or 354 or 356.
Application of univariate statistical techniques in biological sciences.

597B. Multivariate Statistical Methods in Biology (3)

(Same course as Mathematics 555.)
Two lectures and three hours of laboratory.
Prerequisites: Biology 215, and 350 or 352 or 354 or 356.
Application of multivariate statistical methods in biological sciences.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Business Administration

Please see Accountancy; Finance; Information and Decision Systems; Management; Marketing.

Chemistry

In the College of Sciences

OFFICE: Chemistry/Geology 303

TELEPHONE: (619) 594-5595

Accredited by the American Chemical Society.

Faculty

Emeritus: Abbott, Hellberg, Isensee, Jensen, Jones, Joseph, Malik, Mathewson, O'Neal, Richardson, Rowe, Spangler, Stewart, Wadsworth, Walba
Chair: Roeder
Professors: Bennett, Cobble, Coffey, Dahms, Grubbs, Landis, Leber, Metzger, Ring, Roeder, Sharts, Stumph, Tong, Woodson
Associate Professors: Chatfield, Cole
Assistant Professors: Adams, Pullman, Smith, Walsh

Offered by the Department

Doctor of Philosophy degree in chemistry.
Master of Arts degree in chemistry.
Master of Science degree in chemistry.
Major in chemical physics with the B.S. degree in applied arts and sciences.
Major in chemistry with the B.S. degree in applied arts and sciences with the Certificate of the American Chemical Society.
Emphasis in biochemistry.
Major in chemistry with the B.A. degree in liberal arts and sciences, with or without the Certificate of the American Chemical Society.
Minor in chemistry.

The Major

Through the study of chemistry students can better understand their environment and develop new materials that provide for a higher quality of life. Chemists are involved in a wide range of careers in research, development and the production of new goods. Basic chemical research provides society with discoveries of new substances and the means to predict their chemical and physical properties. In developmental chemistry, professionals find ways to put them to use. There are careers in methods of production to provide these materials to society in a cost-effective way. In each of these areas, there are subspecialties in analytical, biochemical, inorganic, organic, and physical chemistry.

The Department of Chemistry offers five degree programs leading to the Bachelor of Arts degree, the Bachelor of Science degree, the Master of Arts degree, the Master of Science degree, and the Doctor of Philosophy degree (with the University of California, San Diego).

There are several options available in the undergraduate program for those wishing either a major or a minor in chemistry. A chemistry major with the Bachelor of Science degree and certificate of the American Chemical Society is designed to qualify students for many types of positions as chemists and for admission to graduate study.

The chemistry major with the Bachelor of Arts degree and certificate of the American Chemical Society is specifically designed to prepare students for careers and graduate work requiring a strong chemistry background. With an appropriate choice of electives, graduates can meet the requirements for admission to medical, dental and pharmaceutical schools. A minor in biology is recommended.

The use of chemistry electives allows a student to focus on a particular area in chemistry such as analytical chemistry, biochemistry, bioinorganic chemistry, chemical physics, inorganic chemistry, organic chemistry, or physical chemistry.

Chemistry Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 19051)

and Certificate of the American Chemical Society

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Chemistry 200, 201, 231, 251; Mathematics 150, 151, 252; and Physics 195, 195L, 196, 196L, 197, 197L (44 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Chemistry 410A-410B, 417, 431, 457, 520A-520B, 550, 560A, one unit of 497, and nine units of upper division electives in chemistry. Six of the nine units may be in related subjects with the approval of the department.

Emphasis in Biochemistry

Preparation for the Major. Chemistry 200, 201, 231, 251; Biology 201, 202; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, and 197L (52 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Chemistry 410A-410B, 431, 457, 550, 560A-560B, 567; Biology 352*, one unit of Chemistry 497 or 498; and nine units selected from Chemistry 520A, 537, 551; Biology 350, 356, 549, 550, 551, 551L, 561, 561L, 563, 564, 566, 567, 569, 570, 585, 590, 591, 594, 595. The addition of Chemistry 520A and 520B qualifies this program for ACS certification.

* Chemistry 560A replaces Chemistry 361A as a prerequisite; Chemistry 410A replaces Biology 215 as a prerequisite.

Chemistry Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 19051)

and Certificate of the American Chemical Society

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in chemistry courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Chemistry 200, 201, 231, 251; Mathematics 150, 151, 252; and Physics 195, 195L, 196, 196L, 197, 197L (44 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units in chemistry to include Chemistry 410A-410B, 417, 431, 457, 520A-520B, 550; one unit of Chemistry 497.

NOTE: See following page for recommended sequence of courses for the B.S. and B.A. Degrees and Certificate.

OUTLINE FOR THE B.S. DEGREE AND CERTIFICATE

		Units				Units	
		1st Sem.	2nd Sem.			1st Sem.	2nd Sem.
First year				Second year			
Chemistry 200	5	—	—	Chemistry 231	4	—	—
Chemistry 201	—	5	—	Chemistry 251	—	5	—
† Mathematics 150, 151	5	4	—	Chemistry 431	—	4	—
Physics 195, 195L	—	4	—	Mathematics 252	4	—	—
Rhetoric and Writing 100	3	—	—	Physics 196, 196L	4	—	—
Rhetoric and Writing 200	—	3	—	Physics 197, 197L	—	4	—
Speech Communication 103	3	—	—	General Education	3	3	—
	16	16			15	16	
		Units				Units	
		1st Sem.	2nd Sem.			1st Sem.	2nd Sem.
Third year				Fourth year			
Chemistry 410A-410B	4	3	—	Chemistry 417	—	2	—
Chemistry 560A	3	—	—	Chemistry 457	2	—	—
Chemistry Elective	—	4	—	Chemistry 497	1	—	—
American Institutions	3	3	—	Chemistry 520A-520B	3	3	—
General Education	6	6	—	Chemistry 550	2	—	—
	16	16		Chemistry Electives	3	2	—
				General Electives	—	6	—
				General Education	6	3	—
					17	16	

† Some students will be required to take Mathematics 104 or 140 or both in their first semester because of failure to qualify on the mathematics placement examination. The appropriate number of units should then be subtracted from General Electives.

OUTLINE FOR THE B.A. DEGREE AND CERTIFICATE

		Units				Units	
		1st Sem.	2nd Sem.			1st Sem.	2nd Sem.
First year				Second year			
Chemistry 200	5	—	—	Chemistry 231	—	4	—
Chemistry 201	—	5	—	Chemistry 251	5	—	—
† Math. 104, 140, 150	5	5	—	Mathematics 151, 252	4	4	—
Physics 195, 195L	—	4	—	Physics 196, 196L	4	—	—
Rhetoric and Writing 100	3	—	—	Physics 197, 197L	—	4	—
Speech Communication 103	3	—	—	General Education	3	3	—
General Education	—	3	—		16	15	
	16	17					
		Units				Units	
		1st Sem.	2nd Sem.			1st Sem.	2nd Sem.
Third year				Fourth year			
Chemistry 410A-410B	4	3	—	Chemistry 417	—	2	—
Chemistry 431	4	—	—	Chemistry 457	2	—	—
American Institutions	3	3	—	Chemistry 497	1	—	—
General Education	3	9	—	Chemistry 520A-520B	3	3	—
	14	15		Chemistry 550	2	—	—
				General Electives	4	5	—
				General Education	3	6	—
					15	16	

† Students eligible to take Mathematics 150 in their first semester should do so and substitute for Mathematics 104 and/or 140 two to five units of general electives.

Chemistry Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 19051)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in chemistry courses can apply to the degree.

Preparation for the Major. Chemistry 200, 201, 231; Biology 201, 202; Mathematics 104, 140, 150, 151, 252; and Physics 195, 195L, 196, 197, 197L. (52 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units in chemistry to include Chemistry 410A-410B, 417, 431, 457, 550, and seven units of electives in chemistry. Chemistry 361A-361B or 560A-560B is recommended for all premedical students.

Minor. A minor in biology is expected for preprofessional students.

Chemical Physics Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 19081)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Individual master plans for each student are filed with the chemistry and physics undergraduate advisers and the Office of Admissions and Records.

A minor is not required with this major.

Preparation for the Major. Chemistry 200, 201, 231, 251; Mathematics 150, 151, and 252; Physics 195, 195L, 196, 196L, 197, 197L. (44 units)

Recommended: A course in computer programming.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 45 upper division units to include Chemistry 410A-410B, 431, 457, 520A, 550; Mathematics 342A-342B; Physics 311, 350, 354A-354B, 357, 400A-400B. Recommended: Mathematics 342C.

Chemistry Minor

The following courses are prerequisite to the chemistry minor and do not count toward the 15 units required for the minor: Chemistry 200, 201. (10 units.)

The minor in chemistry consists of 15 units in chemistry to include Chemistry 231 and 251; and six units of upper division electives. Chemistry 410A-410B** are strongly recommended.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

** Additional prerequisites in mathematics and physics required for these courses.

Graduation with Distinction

A student desiring to graduate with Distinction in Chemistry must meet the university requirements listed in the section of this catalog on "Graduation Requirements" and in addition have completed four units of Chemistry 498 by the time of graduation and be recommended by the faculty member directing the Chemistry 498 project.

Courses

LOWER DIVISION COURSES

100. Introduction to General Chemistry with Laboratory (4) I, II

Three lectures and three hours of laboratory.

Elementary principles of chemistry used to illustrate nature and development of modern scientific thought. Not open to students with credit in Chemistry 105 or 200.

105. Preparation for General Chemistry (4) I, II

Three lectures and three hours of laboratory.

Elemental principles of chemistry approached from problem-solving perspective necessary for success in Chemistry 200. Not open to students with credit in Chemistry 100 or 200.

130. Elementary Organic Chemistry (3) I, II

Prerequisite: Chemistry 100, 105, or 200.

Introduction to compounds of carbon including both aliphatic and aromatic substances. Not open to students with credit in Chemistry 230, 231, or 232.

160. Introductory Biochemistry (3) I, II

Prerequisite: Chemistry 130.

Fundamental principles of the chemistry of living processes. This course intended primarily for majors in home economics, nursing, and related fields.

200. General Chemistry (5) I, II (CAN CHEM 2)

Three lectures and six hours of laboratory.

Prerequisites: High school chemistry or a grade of "C" or better in Chemistry 105, and two years of high school algebra.

General principles of chemistry with emphasis on inorganic materials. Students with credit for either Chemistry 100 or 105, and 200 will receive a total of five units of credit toward graduation.

201. General Chemistry (5) I, II (CAN CHEM 4)

Three lectures and six hours of laboratory.

Prerequisite: Chemistry 200.

Continuation of Chemistry 200. General principles of chemistry with emphasis on inorganic materials and qualitative analysis. Duplicate credit will not be allowed for the corresponding course in Chemistry 202.

231. Organic Chemistry (4) I, II

Three lectures and three hours of laboratory.

Prerequisite: Chemistry 201.

Properties and synthesis of organic compounds including reaction mechanisms. First half of a year course. Not open to students with credit in Chemistry 230.

232. Organic Chemistry (3) (Summer only)

Prerequisite: Chemistry 201.

Properties and synthesis of organic compounds including reaction mechanisms. First half of a one-year course.

232L. Organic Chemistry Laboratory (1) (Summer only)

Three hours of laboratory.

Prerequisite: Chemistry 201.

Properties and synthesis of organic compounds including methods of separation and purification techniques.

251. Analytical Chemistry (5) I, II

Three lectures and six hours of laboratory.

Prerequisites: Chemistry 201 and credit or concurrent registration in Mathematics 122 or 150.

Introduction to the theory and practice of analytical chemistry including gravimetric, volumetric, and instrumental methods.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

299. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Intended for Undergraduates)

361A-361B. Fundamentals of Biochemistry (3-3) I, II

Prerequisite: Chemistry 231. Chemistry 361A is prerequisite to Chemistry 361B.

The chemistry of intermediary metabolism and its regulation. Not open to students with credit in Chemistry 560A-560B.

402. Chemical Literature (2)

Prerequisite: Upper division standing in chemistry.

Availability, type, scope, and use of chemical literature with emphasis on chemical abstracts, Beilstein, Gremlin, science citation indexes, patent literature, and secondary review literature. Description of computerized chemistry data bases and use of remote terminals to access data bases.

410A-410B. Physical Chemistry (4-3) I, II

410A: Three lectures and three hours of laboratory.

410B: Three lectures.

Prerequisites: Chemistry 251 and 231; Mathematics 252; and credit or concurrent registration in Physics 197 and 197L. Chemistry 410A is prerequisite to 410B.

Theoretical principles of chemistry with emphasis on mathematical relations. Theory and practice in acquisition and statistical analysis of physical measurements on chemical systems. (Students with credit in Chemistry 407 will receive only three units credit for 410A.)

417. Advanced Physical Chemistry Laboratory (2) II

Six hours of laboratory.

Prerequisites: Chemistry 410B, 457, and 550.

Experimental physical chemistry. Emphasis on interpretation and statistical evaluation of instrument-derived results, record keeping, report writing, and individual initiative in observing results.

431. Organic Chemistry (4) I, II

Three lectures and three hours of laboratory.

Prerequisite: Chemistry 231.

Continuation of Chemistry 231.

457. Instrumental Methods of Chemical Analysis Laboratory (2) I

Six hours of laboratory.

Prerequisites: Chemistry 431 and credit or concurrent registration in Chemistry 410B; concurrent registration in Chemistry 550.

Application of instrumental methods of chemical separations and analysis frequently used in all subdisciplines of chemistry.

496. Selected Topics in Chemistry (1-4)

Prerequisite: Consent of instructor.

Selected topics in modern chemistry. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

497. Senior Laboratory Project (1-3) Cr/NC I, II, S

Three hours of laboratory per unit.

Prerequisite: Three one-year chemistry courses which have an associated laboratory.

Individual laboratory investigation in analytical, inorganic, organic, or physical chemistry or in biochemistry using advanced laboratory techniques with a final written report of the investigation.

498. Senior Project (1-3) Cr/NC I, II

Prerequisite: Three one-year courses in chemistry.

An individual investigation and report on a problem. Maximum credit six units.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor. Open only to students who have shown ability to do A or B work in chemistry.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

510. Advanced Physical Chemistry (3)

Prerequisite: Chemistry 410B.

Mathematical tools essential to solving problems in chemical thermodynamics, statistical mechanics, chemical kinetics, quantum chemistry and molecular structure and spectroscopy, with applications.

520A-520B. Inorganic Chemistry (3-3) I, II

Prerequisite: Credit or concurrent registration in Chemistry 410B. Chemistry 520A is prerequisite to 520B.

Nature of chemical bond and an advanced systematic study of representative and transition elements and their compounds.

530. Theoretical Organic Chemistry (3)

Prerequisites: Chemistry 410A and 431. Recommended: Credit or concurrent registration in Chemistry 410B.

Electronic and physical properties of organic molecules; structure-reactivity correlations; Electronic structure of molecules (qualitative molecular orbital theory); stereochemistry; and linear free energy relationships.

537. Organic Qualitative Analysis (4)

Two lectures and six hours of laboratory.

Prerequisites: Chemistry 431 and credit or concurrent registration in Chemistry 410A. Recommended: Chemistry 417 and 457.

Chemical, physical, and spectral methods discussed and employed to determine structure of organic compounds. Purification and separation techniques stressed.

550. Instrumental Methods of Chemical Analysis (2) I

Prerequisites: Chemistry 431 and credit or concurrent registration in Chemistry 410B; concurrent registration in Chemistry 457 for undergraduate students only.

Theory and application of those instrumental methods of chemical separation and analysis most frequently used in all subdisciplines of chemistry.

551. Advanced Analytical Chemistry (3) II

Prerequisite: Chemistry 550.

Expanded treatment of instrumental methods for separation and quantification not covered in Chemistry 550. Non-instrumental separations, quantitative organic microanalysis, sampling theory and techniques, reaction rate applications and interpretation of experimental data.

560A-560B. General Biochemistry (3-3)

Prerequisites: Chemistry 431 and credit or concurrent registration in Chemistry 410A.

The structure, function, metabolism, and thermodynamic relationships of chemical entities in living systems. Not open to students with credit in Chemistry 361A-361B.

561. Physical Biochemistry (3)

Prerequisites: Chemistry 201, 431, 361B or 560B; Physics 182B.

Fundamental principles of physical chemistry, including thermodynamics and kinetics as applied to the field of biochemistry.

567. Biochemistry Laboratory (2)

Six hours of laboratory.

Prerequisite: Credit or concurrent registration in Chemistry 361A or 560A.

Theory and practice of procedures used in study of life at molecular level. Includes purification and characterization of enzymes, isolation of cell components, and use of radioactive tracer techniques.

571. Environmental Chemistry (3)

Prerequisites: Chemistry 231 and 251; consent of instructor for all other majors.

Fundamentals of chemistry applied to environmental problems. Chemistry of ecosystems; analysis of natural constituents and pollutants; sampling methods; transport of contaminants; regulations and public policy.

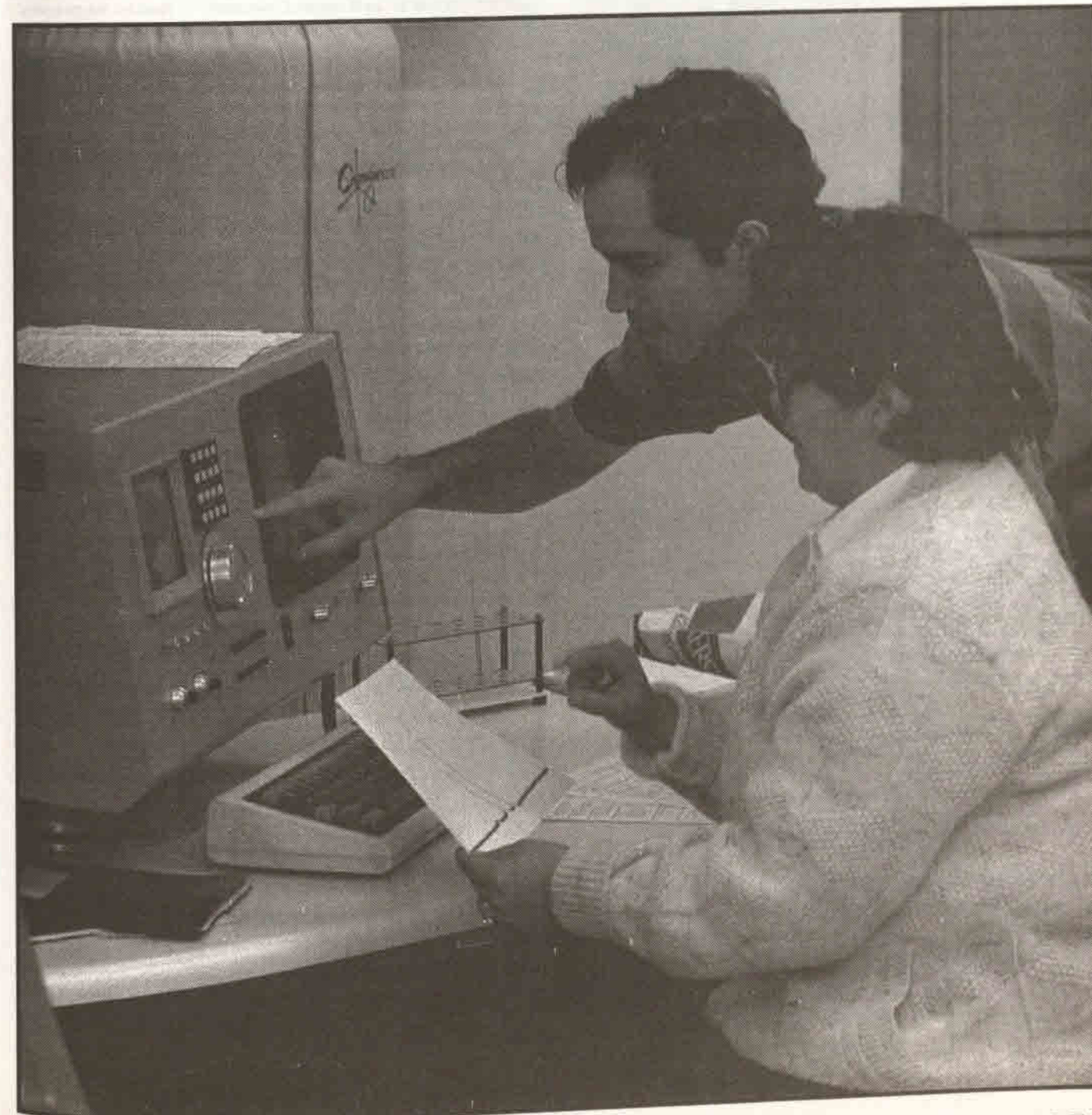
596. Advanced Special Topics in Chemistry (1-3)

Prerequisite: Consent of instructor.

Advanced selected topics in modern chemistry. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to the Graduate Bulletin.



Child and Family Development

OFFICE: Professional Studies and Fine Arts 431
TELEPHONE: (619) 594-5380
FAX: (619) 594-6974

In the College of Professional Studies and Fine Arts

Faculty

Emeritus: Cannon, Hewes, Milne, Price, Somerville
Chair: Deutsch
Professors: Balkwell, Deutsch, Ross
Assistant Professor: Whitney
Lecturers: Mello, Ritblatt, Semlak

Offered by the Department

Master of Science degree in child development.
Major in child development with the B.S. degree in applied arts and sciences.
Minor in child development.
Certificate in family life education.

The Major

The interdisciplinary major in child development draws from many fields of study, including anthropology, biology, psychology, and sociology, and prepares students for a variety of professional specialties. Graduates with competencies in this major find positions in pre-schools, day care centers, schools, hospitals, clinics, residential institutions, counseling centers, mental health centers, public welfare agencies, family service agencies, family planning clinics, community programs, business and industry, and government agencies.

Field experience programs offer students supervised work in community agencies, children's programs, and the Associated Students' Campus Children's Center. The department's Child Study Center focuses on undergraduate and graduate training and research by operating a Campus Children's Center in collaboration with SDSU's Associated Students and San Diego City Schools. Special programs, such as *Art and Music Experiences for Children*, often extend service through the summer and allow for creative collaboration across disciplines. All children's programs are mainstreamed and a wide range of special needs and at-risk populations are served by a full inclusion program.

The child development degree also provides a flexible curriculum base for continuation into graduate programs in child development or family relations; in child, family, and marriage counseling; in social work; in psychology, law, or sociology. Also available are programs leading to the multiple subject and single subject teaching credentials, the community college teaching credential, and a specialist credential in either special education or early childhood education.

The child development minor is an important adjunct for students in areas such as anthropology, education, psychology, recreation, social work, and sociology.

Child Development Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 08231)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Child and Family Development 135, 270, 271, 275; Biology 100; Psychology 101; Sociology 101; Psychology 270 or Sociology 201. (24 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 40 upper division units to include Child and Family Development 335, 370, 371, 375, 376L (1 unit), 436, 478, 590, 597 (1 unit), 597L (2 units); completion of 15 units in any one of the five specializations listed below.

Child Development Specialist: Child and Family Development 476, 477, 537, 570, 577.*

Family Development Specialist: Child and Family Development 437, 536, 578, and six units selected with the approval of the program adviser.

General Child and Family Development: Fifteen units selected with the approval of the program adviser.

Life-Span Development Specialist: Child and Family Development 381, 570, 578, and six units selected with the approval of the program adviser.

Adult Development Specialist: Child and Family Development 381, 578, and nine units selected from Gerontology 350, 360, 370, and 520.

* With appropriate work experience fulfills requirements for the Regular Children's Center Instructional Permit; with completion of the B.S., two years of preschool or child care teaching experience, and satisfactory completion of the California Basic Educational Skills Test (CBEST) fulfills requirements for the Children's Center Supervision Permit. To request forms for these permits contact the Commission for Teacher Credentialing, P.O. Box 94470, Sacramento, CA 94244-2700 or the Credentials Office, San Diego County Office of Education, 6401 Linda Vista Road, San Diego, CA 92111, (619) 292-3581.

Child Development Minor

The minor in child development consists of a minimum of 18 units to include Child and Family Development 270+, 271; and 12 units selected from Child and Family Development 370, 371, 375, 376L (1 unit), 436, 437, 476, 477, 478, 537, 570+, 577, 590, 597, 597L; Psychology 432+. No more than six of the 18 units may be in experiential courses.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

+ Indicates course with prerequisites not included in list of courses acceptable for minor

Family Life Education Certificate

The purpose of this certificate program is to prepare students for careers in family life education. The program is designed for individuals working on degrees in child development and health science. It also provides a self-improvement opportunity for people seeking employment, promotion, or upward mobility on the job who are not enrolled in degree programs.

Awarding of the certificate requires completion of an approved pattern of five courses (15 units) with a grade of "C" or better in each of the courses to include Child and Family Development 135, 270+ or 371+ or Psychology 330+; Biology 307; Community Health Education 475; and Psychology 455. The course offerings under this program meet the criteria for training and standards of the American Association of Sex Educators and Counselors.

Child and Family Development 135, 270 or 371 (six units) are applicable to the child development major. Community Health Education 475 and Psychology 455 (six units) are applicable to the health science major. Courses in the certificate may not be counted toward the minor.

For further information regarding the Family Life Education Certificate program, consult Dr. Francine Deutsch, Department of Child and Family Development.

+ Indicates course with prerequisites not included in requirements listed above.

Courses

LOWER DIVISION COURSES

135. Principles of Family Development (3) I, II

Intimacy, compatibility, conflict, and communication in relationship formation and adjustment. (Formerly numbered Family Studies and Consumer Sciences 135.)

270. Principles of Child Development (3) I, II

Prerequisites: Psychology 101 and Sociology 101.
Child from conception through adolescence; emphasis on biological, cognitive, and psychosocial development. Directed observations of children required. (Formerly numbered Family Studies and Consumer Sciences 270.)

271. Human Development: Early Childhood (3) I, II

Two lectures and three hours of laboratory.
Prerequisite: Child and Family Development 270. **Proof of completion of prerequisite required:** Copy of transcript.
Physical, social, emotional, and intellectual development of the young child with applications for guidance. Observations required. Multiple methods of recording individual and group behavior. (Formerly numbered Family Studies and Consumer Sciences 271.)

275. Developmentally Appropriate Practices (3)

Two lectures and two hours of activity.
Prerequisite: Child and Family Development 270.
Design, implementation, and evaluation of developmentally appropriate practices for children and families.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

335. Interaction in Families (3) I, II

Prerequisite: Child and Family Development 135.
Family interaction patterns throughout the life cycle in a multicultural society. Emphasis on theories, research findings, and family practices. (Formerly numbered Family Studies and Consumer Sciences 335.)

370. Research, Assessment, and Evaluation of Children and Families (3)

Prerequisites: Child and Family Development 270 and 271. **Proof of completion of prerequisites required:** Copy of transcript.

Methods for measuring child, caregiver, and family behavior. Evaluation of reliability and validity. Includes research design, sampling techniques, data collection strategies, and values/ethics. (Formerly numbered Family Studies and Consumer Sciences 370.)

371. Human Development: Middle Childhood and Adolescence (3)

Prerequisite: Child and Family Development 270.
Physical, social, emotional, and intellectual development of children during middle childhood and adolescence. Emphasis on parent, sibling, and peer relationships. Prevention and correction of developmental difficulties. (Formerly numbered Family Studies and Consumer Sciences 371.)

375. Child Development Programs (3) I, II

Prerequisites: Child and Family Development 271; concurrent registration in Child and Family Development 376L for one unit only. **Proof of completion of prerequisites required:** Copy of transcript.

Program models in early childhood education. Communication techniques, basic skills and strategies in working with young children. Development, implementation and evaluation of an appropriate curriculum and environment. (Formerly numbered Family Studies and Consumer Sciences 375.)

376L. Laboratory Experiences in the Child Study Center (1-3)

Three hours of laboratory for each unit of credit.
Prerequisite: First unit requires concurrent registration in Child and Family Development 375. Application to take additional units requires prior consent of instructor.

Directed experiences with children up to ages five in a mainstreamed setting. Designing and implementing developmentally appropriate activities. May be repeated, at advanced level, with consent of instructor. Maximum credit three units. (Formerly numbered Family Studies and Consumer Sciences 376A, 376B.)

381. Human Development: Adult Development and Aging (3)

Prerequisites: Psychology 101 and Sociology 101.
Biological, cognitive, and psycho-social processes of adult development and aging. Emphasis on a life-span developmental perspective, the family context, intervention, and social policy. (Formerly numbered Family Studies and Consumer Sciences 381.)

436. The Individual, Family, and Society (3)

Prerequisites: Psychology 101 and Sociology 101.
Individual and family needs and the social institutions and agencies attempting to meet these needs. Social issues, service programs, program analyses, and program effectiveness are emphasized. (Formerly numbered Family Studies and Consumer Sciences 436.)

437. Violence in Families (3)

Prerequisite: Child and Family Development 335. **Proof of completion of prerequisite required:** Copy of transcript.
Theories and research findings to examine abusive interactions in families. Trends, preventive measures, and treatment techniques. (Formerly numbered Family Studies and Consumer Sciences 437.)

476. Development of Creative Behavior in Young Children (3) I, II

Prerequisite: Child and Family Development 375. **Proof of completion of prerequisite required:** Copy of transcript.
Techniques for encouraging creative behavior in young children: philosophical and empirical approaches. (Formerly numbered Family Studies and Consumer Sciences 476.)

477. Administration of Child Development Programs (3) I

Prerequisite: Child and Family Development 375. **Proof of completion of prerequisite required:** Copy of transcript.
Programs for young children: design, implementation, and evaluation. Research applications and legal requirements for public and private sectors. (Formerly numbered Family Studies and Consumer Sciences 477.)

478. Working with Parents (3) I, II

Prerequisite: Child and Family Development 270.
Philosophy, programs, and best practices for parental involvement. Emphasis on design, implementation, and evaluation of projects serving multicultural families. (Formerly numbered Family Studies and Consumer Sciences 478.)

496. Experimental Topics (1-4) I, II

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

536. Family Study (3) II

Prerequisites: Child and Family Development 335 and Sociology 101.

Integration of family theories and research findings. Family attitudes and practices in different cultures, social classes, and ethnic groups. Emphasis on individual and social attitudes toward families. (Formerly numbered Family Studies and Consumer Sciences 536.)

537. Child Abuse (3) II

Prerequisites: Child and Family Development 270 and 371 for majors; completion of the General Education requirement in Explorations for non-majors; consent of instructor for graduate students.

Multidisciplinary approach to child abuse including study of child maltreatment and mistreatment, child neglect, and sexual abuse. (Formerly numbered Family Studies and Consumer Sciences 537.)

570. Infant/Toddler Development (3) I

Prerequisites: Child and Family Development 270 or Psychology 330. Recommended: Biology 350 and Psychology 260. **Proof of completion of prerequisite required:** Copy of transcript.

Physiological, psychological, social and cultural development of the human organism from birth through three years of age. (Formerly numbered Family Studies and Consumer Sciences 570.)

577. Advanced Administration of Child Development Programs (3) II

Prerequisite: Child and Family Development 477. **Proof of completion of prerequisite required:** Copy of transcript.

Problem analysis and development of successful organizational strategies for child development program delivery. Leadership, effective communication, social and ethical issues from a multicultural perspective. (Formerly numbered Family Studies and Consumer Sciences 577.)

578. Parent-Child Relationships Across the Life Span (3) I

Prerequisites: Child and Family Development 335 and 370.
Multidisciplinary approach to the parent-child relationship as it continues and changes throughout the life of the dyad, including study of normative and nonnormative life events. (Formerly numbered Family Studies and Consumer Sciences 578.)

590. Developmental Dysfunctions (3) I

Prerequisites: Child and Family Development 270 or Psychology 330, and twelve upper division units in child and family development for majors; completion of General Education requirement in Explorations for non-majors; consent of instructor for graduate students. **Proof of completion of prerequisites required:** Copy of transcript.
Adaptive and maladaptive processes throughout the life span with emphasis on emotional, psychological, and physical disorders. Etiology, development, and adjustment. (Formerly numbered Family Studies and Consumer Sciences 590.)

596. Advanced Studies in Child and Family Development (1-6)

Prerequisite: Nine upper division units in child and family development.

Advanced study of selected topics. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of nine units of 596. No more than six units of 596 may be applied to either the bachelor's or master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

597. Child and Family Development Field Experiences (1) I, II

Prerequisites: Twelve units in the child development major and concurrent registration in Child and Family Development 597L. **Proof of completion of prerequisites required:** Copy of transcript.

Developmental theories and techniques in child development. (Formerly numbered Family Studies and Consumer Sciences 597.)

597L. Child and Family Development Field Experiences Laboratory (2) Cr/NC I, II

Prerequisites: Twelve units in the child development major and concurrent registration in Child and Family Development 597. **Proof of completion of prerequisites required:** Copy of transcript.

Directed experiences in the practical application of developmental theories and techniques in various community agencies. (Formerly numbered Family Studies and Consumer Sciences 597L.)

GRADUATE COURSES
Refer to the Graduate Bulletin.

For courses in nutrition, refer to "Nutrition" in this section of the catalog.

Chinese

In the College of Arts and Letters

OFFICE: Business Administration 327

TELEPHONE: (619) 594-5268

Faculty

Chair: Underhill
Professor: Woo
Assistant Professor: Zhang

Offered by the Department of
Linguistics and Oriental Languages

Minor in Chinese.

Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Chinese to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Chinese 201 or the equivalent level of achievement. The usual sequence of coursework is Chinese 101, 102, and 201. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.
2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.
3. **Four years** of high school level language count as the equivalent of three college semesters, thus fulfilling the foreign language requirement.

Chinese Minor

The minor in Chinese consists of a minimum of 19 units in Chinese; at least 16 units must be in the Chinese language of which six units must be in upper division courses. The remaining three units may be selected from additional Chinese language courses or selected from Art 263, 308, Asian Studies 458, 459, Comparative Literature 455, 460 (when appropriate), History 566, 567, 568, either Linguistics 420 or 520, Philosophy 351, Religious Studies 403.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and General Education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

Native speakers of Mandarin Chinese will not receive credit for taking lower division courses except with advance approval from the department.

All lower division courses in Chinese are taught in Chinese.

No credit will be given for Chinese 101, 102, 201, 202 taken out of sequence.

101. Elementary Chinese I (5) I

Five lectures and one hour of laboratory.

Rudiments of Mandarin pronunciation; listening, speaking, reading, and writing with emphasis on communicative ability; acquisition of the most useful phrases and vocabulary items, and over 300 characters; familiarity with basic sentence structures of Mandarin; information on Chinese culture. Not open to students who have completed three years of high school Chinese unless the third course was completed five or more years ago.

102. Elementary Chinese II (5)

Five lectures and one hour of laboratory.

Prerequisite: Chinese 101.

Continuation of Chinese 101, including acquisition of an additional 300 characters. Further development of language competence. Not open to students who have completed three years of high school Chinese unless the third course was completed five or more years ago.

201. Intermediate Chinese I (5)

Five lectures and one hour of laboratory.

Prerequisites: Chinese 102, and completion of the General Education requirement in Foundations II.C., Humanities.

Development of facility to comprehend and produce spoken Chinese. Acquisition of advanced language structures and an additional 400 characters. Emphasis on connected discourse.

202. Intermediate Chinese II (5)

Five lectures and one hour of laboratory.

Prerequisites: Chinese 201, and completion of the General Education requirement in Foundations II.C., Humanities.

Continuation of Chinese 201. Reading of contemporary work and writing of short passages in Chinese. Acquisition of an additional 400 characters.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES

(Intended for Undergraduates)

All upper division courses in Chinese are taught in Chinese unless otherwise stated.

301. Advanced Chinese I (3)

Prerequisite: Chinese 202.

Greater facility in oral expression and writing for practical purposes; exposure to various styles of language; newspaper and media Chinese; elements of literary and classical language.

302. Advanced Chinese II (3)

Prerequisite: Chinese 301.

Continuation of Chinese 301. Writing paragraphs and longer expository texts. Reading modern and classical literature.

431. Advanced Conversational Chinese (3)

Prerequisite: Chinese 302.

Conversation practice on practical, social, and cultural topics, with aid of spoken language materials such as plays and videotapes; learning conversational strategies and stylistic features. (Formerly numbered Chinese 331.)

433. Newspaper Chinese (3)

Prerequisite: Chinese 302.

Developing reading skills; cultural, historical, and linguistic information for understanding of Newspaper Chinese. Conventions, special structures, and vocabulary; reading strategies such as skimming and scanning; background information on idioms and literary allusions used in newspapers. (Formerly numbered Chinese 334.)

434. Business Chinese (3)

Prerequisite: Chinese 302.

Developing ability to function in Chinese business environment; familiarity with business correspondence, telecommunication, advertising, business terminology and stylistic features, information on intercultural communication, social and cultural background. (Formerly numbered Chinese 333.)

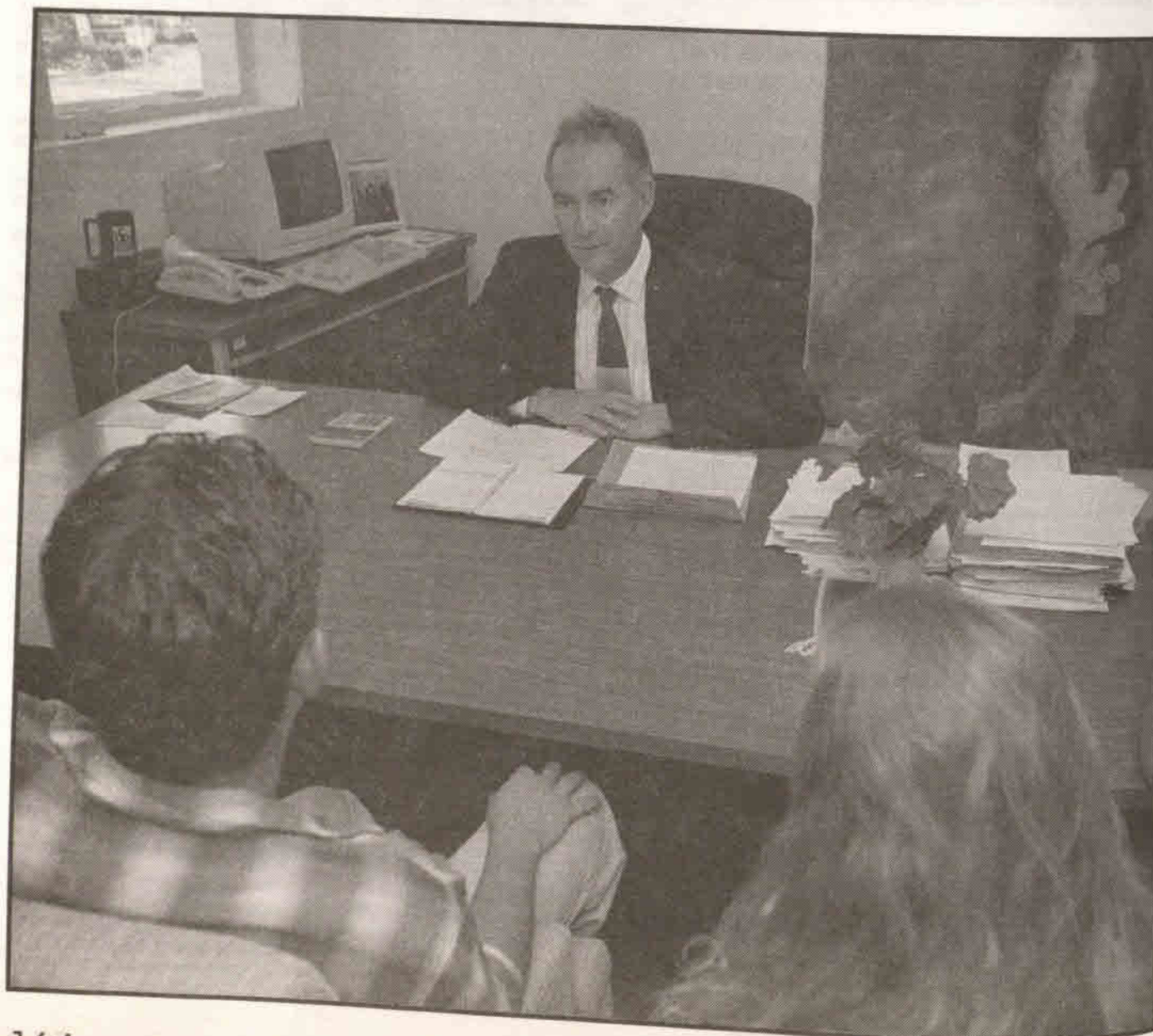
496. Topics in Chinese Studies (1-4)

Topics in Chinese language, literature, culture, and linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit eight units.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.



Civil Engineering

In the College of Engineering

OFFICE: Engineering 424

TELEPHONE: (619) 594-6071

The undergraduate degree in Civil Engineering is accredited by the Accreditation Board for Engineering and Technology, Inc.

Faculty

Emeritus: Capp, Johnson, Quiett, Stone.

Chair: Supernak

Professors: Banks, Chang, Chou, Krishnamoorthy, McGhie, Noorany, Ponce, Stratton, Supernak, Westermo

Associate Professor: Sharabi

Assistant Professor: Bayasi

Offered by the Department of Civil and Environmental Engineering

Doctor of Philosophy degree in applied mechanics.

Master of Science degree in civil engineering.

Major in civil engineering with the B.S. degree.

Transfer Credit

No credit will be given for upper division engineering coursework taken at an institution having an engineering program which has not been accredited by the Accreditation Board for Engineering and Technology, Inc., unless the student successfully completes the first 12 units of engineering work attempted at this university. At that time, and upon recommendation of the department, credit will be given for the unaccredited work.

General Education

Students will complete a minimum of 50 units in General Education, to include a minimum of nine upper division units taken after attaining junior class standing. At least three of the nine upper division units must be taken from Explorations; the remaining six units may be taken from Explorations or from specifically approved upper division course substitutions for Foundations areas B and C (Social and Behavioral Sciences and Humanities). No more than twelve units may be used for General Education credit from any one department or academic unit.

I. Communication and Critical Thinking: 9 units

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)

II. Foundations: 29 units**A. Natural Sciences and Quantitative Reasoning (17 units):**

1. Physical Sciences (11 units)
Engineering students will take Chemistry 200 which includes a laboratory (5 units).
Physics 195 (3 units)
Physics 196 (3 units)
2. Life Sciences (3 units)
3. Laboratory (satisfied under A.1. above)
4. Mathematics/Quantitative Reasoning
Engineering students will take Mathematics 150 (3 units) applicable to General Education

B. Social and Behavioral Sciences (3 units)**C. Humanities (9 units)**

Complete three courses in three different areas. One of these courses and the one under IV.A. below must be taken in the same department.

III. American Institutions: Three units of the six units of coursework which meet the American Institutions graduation requirement may be used in General Education, excluding courses numbered 500 and above.**IV. Explorations:** Total: 9 units; must include one course of cultural diversity.**A. Upper division Humanities (3 units)**

This course must be taken from the same department as one of the Humanities courses selected in Foundations.

B. Upper division Humanities (3 units from an area in Humanities not selected in Foundations)**C. Upper division Social and Behavioral Sciences (3 units)****The Major**

Civil engineering is the application of engineering principles to the improvement of the human environment. The civil engineering major prepares students to design and supervise the construction of buildings, dams, roads, harbors, airports, tunnels, and bridges. It also provides training in the planning and construction of the complex systems that supply clean water to cities, remove sewage, control floods, and perform other functions which ensure continued health and safety.

Civil engineers are needed in both the private and public sectors. They are employed in the aerospace industry, usually as structural engineers; design and construction of roads, buildings, bridges, airports, dams and other structures; research and teaching at colleges and universities (with an advanced degree); public utilities and transportation; manufacturing; and offshore drilling, environmental pollution, and energy self-sufficiency. New job opportunities in civil engineering will result from growing demands in housing, industrial buildings, power generating plants, and transportation systems.

Civil Engineering Major**With the B.S. Degree (Major Code: 09081)**All students in civil engineering pursue a common program of study in basic engineering and civil engineering fundamentals. In addition, students are provided with the opportunity to select a pattern of study to satisfy their areas of interest. This pattern of study is indicated in the sequence below as "professional electives" and may be selected from available courses in foundation, structural, environmental, transportation, or water resources engineering; computer programming; advanced surveying; engineering economics; and other areas. *The students' choice of elective courses must be made in consultation with their adviser and documented by the filing of an approved master plan during the first semester of their junior year.***Upper Division Writing Requirement.** Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.**NOTE:** See following page for the recommended sequence of courses for the major in civil engineering.

FRESHMAN YEAR			
Fall Semester	Units	Spring Semester	Units
Chem. 200, General Chemistry	5	Phys. 195, Principles of Physics	3
Math. 150, Single Variable Calculus	5	Math. 151, Calc. and Anal. Geom.	4
ME 190, Engineering Drawing	2	Engr. 120, Engr. Problem Analysis	2
General Education	6	Engr. 140, Engr. Meas. Analysis	2
	18	General Education	6
			17
SOPHOMORE YEAR			
Fall Semester	Units	Spring Semester	Units
Phys. 196, Principles of Physics	3	Phys. 197, Principles of Physics	3
Math. 252, Multivariate Calculus	4	EM 220, Dynamics	3
EM 200, Statics	3	EE 204, Principles of Elec. Engr.	3
ME 260, Engineering Materials	3	CE 218, Surveying for CE	3
General Education	3	General Education	6
	16		18
JUNIOR YEAR			
Fall Semester	Units	Spring Semester	Units
CE 301, Intro. to Solid Mechanics	3	EM 340, Fluid Mechanics	3
CE 302, Solid Mechanics Lab	1	EM 341, Fluid Mechanics Lab	1
Engr. 280, Methods of Analysis	3	CE 253, Geology for Engrs.	2
ME 352, Thermo. & Heat Transfer	3	CE 321, Structural Analysis I	4
General Education	6	CE 355, CE Environmental Studies	2
	16	General Education	6
			18
SENIOR YEAR			
Fall Semester	Units	Spring Semester	Units
CE 444, Applied Hydraulics	3	CE 421, Reinforc. Concrete Design	3
CE 462, Soil Mechanics	3	CE 495, Civil Engr. Design	3
CE 463, Soil Mechanics Lab	1	#Professional Electives	9
CE 481, Transportation Engr.	3	American Institutions	3
#Professional Electives	5		
American Institutions	3		
	18		18

Approved as part of the student's master plan.

Courses

LOWER DIVISION COURSES

- 218. Surveying for Civil Engineers (3) I, II**
Two lectures and three hours of laboratory.
Prerequisites: Engineering 140 and Mathematics 151.
Principles of plane surveying. Measurement of horizontal distance, difference in elevation, and angles. Traverse surveys and computations. Horizontal and vertical curves. Principles of stadia. Topographic surveys. Earthwork.
- 253. Geology for Engineers (2) I, II**
One lecture and three hours of laboratory.
Prerequisite: Civil Engineering 218.
Earth materials, geologic processes, and methods of geologic interpretation of concern to engineers. Open only to students majoring in engineering. (Formerly numbered Geological Sciences 253.)

UPPER DIVISION COURSES (Intended for Undergraduates)

- 301. Introduction to Solid Mechanics (3) I, II**
Prerequisites: Engineering Mechanics 200 with a grade of C or better, and credit or concurrent registration in Engineering 280 and Engineering Mechanics 220.
Mechanics of solid deformable bodies involving analytical methods for determining strength, stiffness, and stability of load-carrying members. (Formerly numbered Engineering Mechanics 301.)

302. Solid Mechanics Laboratory (1) I, II

- Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Civil Engineering 301.
Laboratory studies in solid mechanics. Experimental stress analysis. Experimental confirmation of theory. (Formerly numbered Engineering Mechanics 302.)

321. Structural Analysis I (4) I, II

- Prerequisite: Civil Engineering 301 with minimum grade of C.
Principles of mechanics applied to analysis of beams, frames, trusses, and three-dimensional frameworks. Graphical methods, influence lines; deflections; introduction to statically indeterminate structures and moment distribution.

355. Civil Engineering Environmental Studies (2) I, II

- Prerequisites: Chemistry 200 and credit or concurrent registration in Engineering Mechanics 340.
The application of civil engineering methodology to the solution of environmental problems.

421. Reinforced Concrete Design (3) I, II

- Prerequisite: Civil Engineering 321 with minimum grade of C.
Properties and characteristics of reinforced concrete; design of structural components. Introduction to plastic theory and limit design.

423. Timber Design (2) I

- Prerequisite: Civil Engineering 321 with minimum grade of C.
Physical and mechanical properties of wood. Sawn lumber, glulam, plywood. Design of various types of wood structures. Connection design.

444. Applied Hydraulics (3) I, II

- Prerequisite: Engineering Mechanics 340. **Proof of completion of prerequisite required:** Copy of transcript.
Open channel and pressure conduit flow, pumps and turbines, hydroelectric power, and water law.

445. Applied Hydrology (3) II

- Prerequisite: Civil Engineering 444 with minimum grade of C.
Basic hydrologic principles, hydrologic measurements, small and midsize catchment hydrology, frequency analysis, regional analysis, reservoir, stream channel and catchment routing, hydrologic design.

462. Soil Mechanics (3) I, II

- Prerequisites: Civil Engineering 253; Civil Engineering 301 with minimum grade of C, credit or concurrent registration in Engineering Mechanics 340, and concurrent registration in Civil Engineering 463. **Proof of completion of prerequisite required:** Copy of transcript or enrollment confirmation.
Mechanics of soils as they apply to engineering problems, soil classification, compaction, swelling, consolidation, strength and permeability. Applications to geotechnical engineering problems.

463. Soil Mechanics Laboratory (1) I, II

- Three hours of laboratory.
Prerequisite: Concurrent registration in Civil Engineering 462. **Proof of completion of prerequisite required:** Copy of transcript or enrollment confirmation.
Laboratory procedures of soil testing for engineering problems.

465. Foundation Engineering (3) II

- Prerequisites: Civil Engineering 462 and 463 with minimum grades of C.
Soil mechanics theories applied to the design of shallow and deep foundations; lateral pressure of soils, design of retaining walls.

479. Construction Materials (3) II

- Two lectures and three hours of laboratory.
Prerequisites: Civil Engineering 462 and 481.
Selection, design and control of mixes of portland cement and asphalt concrete. Properties of these and other materials used in construction.

481. Transportation Engineering (3) I, II

- Prerequisite: Civil Engineering 218 with minimum grade of C.
Function and design of different modes of transportation for moving people and goods; and corresponding terminal facilities.

482. Highway Engineering (3) I, II

- Two lectures and three hours of laboratory.
Prerequisite: Civil Engineering 481 with minimum grade of C.
Highway design, facility sizing, geometric design, drainage, earthwork, pavement design, traffic control devices, safety and environmental considerations.

491. Construction Methods (3) I

- Prerequisite: Civil Engineering 321.
Components and methods of construction including earthwork; foundations; wood, steel, and concrete construction; roofing and cladding; interior construction.

492. Construction Engineering (3) II

- Prerequisites: Civil Engineering 491 and Engineering 430.
Project oriented. Cost estimating; alternative cost-saving changes; critical path scheduling.

495. Civil Engineering Design (3) I, II

- One lecture and six hours of laboratory.
Prerequisites: Civil Engineering 321, 355, 444, 462, 481, and credit or concurrent registration in Civil Engineering 421.
Application of engineering principles and design techniques to the design of civil engineering projects.

496. Advanced Civil Engineering Topics (1-3) I, II

- Prerequisites: Minimum grade point average of 3.0 and consent of instructor.
Modern developments in civil engineering. See Class Schedule for specific content. Maximum credit six units for any combination of Civil Engineering 496, 499 and 596.

499. Special Study (1-3) Cr/NC I, II

- Prerequisites: Minimum grade point average of 3.0 and consent of instructor.
Individual study. Maximum credit six units for any combination of Civil Engineering 496, 499 and 596.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

521. Structural Analysis II (3) I

- Prerequisite: Civil Engineering 321 with minimum grade of C.
Analysis of statically indeterminate structures by virtual work. Advanced treatment of slope deflection, moment distribution. Arch analysis, secondary stresses in trusses. Advanced treatment of influence lines. Introduction to matrix analysis of structures.

525. Design of Steel Structures (3) I, II

- Prerequisite: Civil Engineering 321 with minimum grade of C.
Mechanical behavior of structural steel. Design of steel beams, girders, columns and members subjected to combined stresses. Design of various types of connections of steel structures; plate girders, continuous beams and rigid frames.

530. Open Channel Hydraulics (3) I, II

- Prerequisite: Civil Engineering 444 with minimum grade of C. **Proof of completion of prerequisite required:** Copy of transcript.
Open channel flow theory, analysis and problems, including studies of critical flow, uniform flow, gradually varied and rapidly varied flow—all as applied to the design of channels, spillways, energy dissipators, and gravity pipelines.

555. Water and Wastewater Engineering (3) I

- Prerequisite: Civil Engineering 355 with minimum grade of C. **Proof of completion of prerequisite required:** Copy of transcript.
Water and wastewater. Physical, chemical and biological methods of treatment. Advanced waste treatment processes. Water reclamation.

558. Solid Waste Management (3)

- Prerequisite: Civil Engineering 355 with a grade of C or better. **Proof of completion of prerequisite required:** Copy of transcript.
Management of municipal solid waste from a civil engineering perspective, including waste minimization and recycling. Engineered volume reduction through composting, incineration, mechanical compaction, and other methods. Ultimate disposal, landfill design and legislative regulations.

596. Advanced Civil Engineering Topics (1-3) I, II

- Prerequisites: Minimum grade point average of 3.0 and consent of instructor.
Modern developments in civil engineering. See Class Schedule for specific content. Maximum credit of six units for any combination of Civil Engineering 496, 499 and 596 applicable to a bachelor's degree. Maximum combined credit of six units of Civil Engineering 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES Refer to the Graduate Bulletin.

Classics

In the College of Arts and Letters

OFFICE: Adams Humanities 4231
TELEPHONE: (619) 594-5186

Faculty

Emeritus: Burnett, Warren
Chair: Genovese
Professors: Eisner, Genovese, Hamilton
Lecturer: Chamberlain

Offered by the Department of Classics and Humanities

Major in classics with the B.A. degree in liberal arts and sciences.
Emphasis in classical humanities.
Emphasis in classical language.
Teaching major in classics (concentration in Latin) for the single subject teaching credential in foreign languages.
Minor in classics.

The Major

Classics is the study of the languages, literatures, and civilizations of ancient Greece and Rome. These are the oldest European and American traditions of the humanities and the liberal arts. Classics literally means works of the first class or rank, and the profound truths and disciplined forms cultivated by classical authors and artists have assured their works lasting relevance.

All Classics majors take two or more years of Greek or Latin. They may choose the language emphasis that allows them to study one or both languages or they may choose the broader emphasis in classical humanities. There is also a Latin-centered curriculum that prepares them for a teaching career. Classics majors have at their disposal the library, art, and relaxation of the Burnett Classics Seminar Room, and they have access to the audiovisual library of the Schaber Humanities Center. In addition to small language classes, close academic advising, and the fellowship of a small department with diverse interests, Classics majors culminate their studies with a senior seminar.

Although the prime purpose of the Classics major is to satisfy a quest for the original intellectual and artistic values of Western civilization, graduates enjoy a range of professional choices in addition to academic careers in Classics and various humanities disciplines. Classics majors are well prepared for law school, and with supplementary coursework in business, economics, or information systems, a Classics graduate can be very competitive in the business world, especially at the executive level. Classics graduates also have an advantage as editors, librarians, journalists, and technical writers. Opportunities are available in public relations, government, and other fields where general knowledge, perspective, and a facility with language serve not only the public good but one's own success.

High School Equivalents

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first *two years* of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first *three years* of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. *Four years* of high school level language count as the equivalent of three college semesters, thus fulfilling the foreign language requirement.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Classics Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15041)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in classics courses can apply to the degree.

During their last semester all seniors majoring in classics shall submit to the department a portfolio of their scholarly work.
A minor is not required with this major.

Emphasis in Classical Humanities

Preparation for the Major. Classics 101G-202G or 250G, or Classics 101L-202L or 250L; and six units from Classics 140, Comparative Literature 270A, History 105, Humanities 140. (14-16 units)

Students should note that a number of the upper division required and recommended courses listed below have lower division prerequisites, but these prerequisites do not constitute requirements per se for the completion of the major.

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major plus one language course in the major.

Upper Division Writing Requirement. Passing the University Writing Examination or one of the following courses with a grade of C (2.0) or better: History 430W, Rhetoric and Writing 503W.

Major. A minimum of 30 upper division units to include Classics 320, 330, History 500A-500B, and Philosophy 411 (prerequisites waived for students in this major); six units selected from Art 568, History 501, Humanities 402, Speech Communication 450, upper division courses in Classics; six units of Greek or Latin; and Humanities 490.

Emphasis in Classical Language

Preparation for the Major. Eight to 20 units from Classics 101G-202G, 101L-202L, 250G, 250L; and six units from Classics 140, Comparative Literature 270A, History 105, Humanities 140. (14-26 units)

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major plus one language course in the major.

Upper Division Writing Requirement. Passing the University Writing Examination or one of the following courses with a grade of C (2.0) or better: History 430W, Rhetoric and Writing 503W.

Major. A minimum of 30 upper division units to include Classics 320; History 500A or 500B; three to nine units from upper division courses in Classics, Art 568, History 500A, 500B, Philosophy 411 (prerequisites waived for students in this major); 12-18 units of Greek or Latin; and Humanities 490.

Classics Major

For the Single Subject Teaching Credential in Foreign Languages With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15041)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education. For students completing the single subject teaching credential program, no more than 48 units in classics can apply to the degree.

This major may be used by students in policy studies or teacher education as an undergraduate major for the B.A. degree in liberal arts and sciences.

Emphasis in Latin

Preparation for the Major. Classics 101L-202L or Classics 250L; and six units from Classics 140, Comparative Literature 270A, History 105, Humanities 140. (14-16 units)

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major plus one language course in the major.

Upper Division Writing Requirement. Passing the University Writing Examination or one of the following courses with a grade of C (2.0) or better: History 430W, Rhetoric and Writing 503W.

Major. A minimum of 30 upper division units to include Classics 303L, 304L 320; nine units in Classics 496L or 599L to include three units in Special Study in Latin Teaching Methods; History 500B; six units from Classics 310, 330, 340, Art 568, History 500A, or Philosophy 411 (prerequisites waived for students in this major); and Humanities 490.

Classics Minor

The classics minor consists of a minimum of 18 units, nine of which must be upper division, including 6-12 units from Classics 310, 320, 330, or 340; the remaining 6-12 units must be selected from courses in classics (Greek, Latin, or nonlanguage), Art 568*, History 500A, 500B, or Philosophy 411*.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

* Additional prerequisites required.

Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Greek or Latin to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Classics 303G or 303L or the equivalent level of achievement. The usual sequence of course work is either Classics 101G, 202G, and 303G, OR Classics 101L, 202L, and 303L. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

Courses

Classics includes courses in Greek and Latin as well as nonlanguage courses. Greek course numbers have a G suffix; Latin courses have an L suffix.

No credit will be given for Classics 101G, 202G, 303G, 304G taken out of sequence.

No credit will be given for Classics 101L, 202L, 301L, 303L taken out of sequence.

LOWER DIVISION COURSES

101G. Elementary Greek I (5) I

Introduction to ancient Greek, emphasizing grammatical foundations of Attic and Koine prose. Not open to students who have completed three years of high school ancient Greek unless the third course was completed five or more years ago. Not open to students with credit in Classics 250G.

101L. Elementary Latin I (5) I

Introduction to Latin, emphasizing grammatical foundations of classical prose. Not open to students who have completed three years of high school Latin unless the third course was completed five or more years ago. Not open to students with credit in Classics 250L.

120. English from Latin and Greek (3)

General philology, emphasizing Latin and Greek bases and their English derivatives. Etymology, word analysis and construction, language history and structure. (Formerly titled "Latin and Greek Word Derivation.")

140. Our Classical Heritage (3)

Greek and Roman art, literature, and institutions as reflected in the Western tradition.

202G. Elementary Greek II (5) II

Prerequisite: Classics 101G.

Continuation of Greek grammar with selections illustrating syntax and style. Not open to students who have completed four years of high school ancient Greek unless the fourth course was completed five or more years ago. Not open to students with credit in Classics 250G.

202L. Elementary Latin II (5) II

Prerequisite: Classics 101L.

Continuation of Latin grammar with selections illustrating syntax and style. Not open to students who have completed four years of high school Latin unless the fourth course was completed five or more years ago. Not open to students with credit in Classics 250L.

250G. Accelerated Elementary Greek (8) S (Offered only in Extension)

Intensive one-semester introduction to ancient Greek, emphasizing basic grammar, vocabulary, syntax. Preparation for Classics 303G. Not open to students who have completed three years of high school ancient Greek unless the third course was completed five or more years ago. Not open to students with credit in Classics 101G and 202G.

250L. Accelerated Elementary Latin (8) S (Offered only in Extension)

Intensive one-semester introduction to Latin, emphasizing basic grammar, vocabulary, syntax. Preparation for Classics 303L. Not open to students who have completed four years of high school Latin unless the fourth course was completed five or more years ago. Not open to students with credit in Classics 101L and 202L.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

- C. Experimental Topics in Classics.
- G. Experimental Topics in Greek.
- L. Experimental Topics in Latin.

UPPER DIVISION COURSES
(Intended for Undergraduates)

303G. Readings in Greek Prose (3) I

Prerequisites: Classics 202G or 250G, and completion of the General Education requirement in Foundations II.C., Humanities.

Readings selected from Greek history, philosophy, oratory, and New Testament. Authors such as Xenophon, Plato, Lysias, the Evangelists. Emphasis on rapid reading.

303L. Readings in Latin Prose (3) I

Prerequisites: Classics 202L or 250L, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors.

Readings selected from classical Latin history, philosophy, oratory, letters. Authors such as Sallust, Cicero, Pliny the Younger. (Formerly numbered Classics 302L.)

304G. Readings in Greek Poetry (3) II

Prerequisites: Classics 303G, and completion of the General Education requirement in Foundations II.C., Humanities.

Readings selected from Greek epic, elegy, tragedy. Authors such as Homer, Sophocles, Euripides.

304L. Readings in Latin Poetry (3) II

Prerequisites: Classics 303L, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors.

Readings selected from classical Latin epic, lyric, elegy, comedy. Authors such as Vergil, Catullus, Ovid, Plautus. (Formerly numbered Classics 301L.)

310. Classical Mythology (3)

Prerequisites: Nine units from General Education courses in Foundations II.C., Humanities. Recommended: Rhetoric and Writing 200.

Mythological elements in Greek and Roman art, literature, and religion.

320. Classical Literature (3) I

Prerequisites: Nine units from General Education courses in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors. Recommended: Rhetoric and Writing 200.

Reading in translation of Greek and Latin masterpieces. Emphasis on epic and prose genres. Authors such as Homer, Herodotus, Plato, Vergil, Apuleius. Literary and historical criticism.

330. Classical Drama (3) II

Prerequisites: Nine units from General Education courses in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors. Recommended: Rhetoric and Writing 200.

Reading in translation of Greek and Roman tragedies and comedies. Playwrights such as Aeschylus, Sophocles, Euripides, Aristophanes, Plautus, Seneca. Literary, dramatic, historical criticism.

340. Classical Civilization (3)

Prerequisites: Nine units from General Education courses in Foundations II.C., Humanities. Recommended: Rhetoric and Writing 200.

Greek and Roman civilization from Bronze Age to Late Empire. Integration of history, philosophy, literature, the arts, and society.

496. Topics in Classical Studies (1-4)

Topics in classical languages, literatures, cultures, and linguistics. May be repeated with new content. See Class Schedule for specific content. Maximum credit nine units. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

C. Topics in Classics.

G. Topics in Greek. Advanced reading in an author, genre, or period, or work in linguistics.

L. Topics in Latin. Advanced reading in an author, genre, or period, or work in linguistics.

UPPER DIVISION COURSE
(Also Acceptable for Advanced Degrees)

599. Special Study (1-3) I, II

Prerequisites: Consent of major or graduate adviser; to be arranged by department chair and instructor. For 599C: Classics 304L or 304G. For 599G: 304G. For 599L: 304L.

Individual study. Maximum credit six units.

C. Special Study in Classics.

G. Special Study in Greek.

L. Special Study in Latin.

Communication

In the College of Professional Studies and Fine Arts

OFFICE: Professional Studies and Fine Arts 222

TELEPHONE: (619) 594-5450

Faculty

Emeritus: Adams, Benjamin, Brown Heighton, Holowach, Jones, Lee, Madsen, Odendahl, Sanders, Sorensen, Whitney, Wimer, Witherspoon, Wylie

Director: Pavlik

The Van Deerlin Chair in Communication: Eger

Filmmaker in Residence: Ofield

Professors: Anderson, J., Andersen, P., Anderson, Beach, Broom, Buckalew, Dozier, Hartung, Hellweg, Jameson, Johnson, Lustig, Real, Samovar, Spitzberg, Weitzel, Wulfemeyer

Associate Professors: Blue, Davis, Dionisopoulos, Durbin, Geist, Lauzen, Martin, Meador, Mueller

Assistant Professors: Miller, Spevak

Adjunct: Freedman

Offered by the School

Master of Arts degree in speech communication.

Master of Arts degree in telecommunications.

Master of Science degree in mass communication (in cooperation with other departments).

Major in drama, with emphasis in design for television. See Drama.

Major in journalism with the B.A. degree in liberal arts and sciences.

Emphasis in advertising.

Emphasis in news-editorial.

Emphasis in public relations.

Emphasis in radio-TV news.

Major in speech communication with the B.A. degree in applied arts and sciences.

Major in telecommunications, with the B.A. degree in liberal arts and sciences.

Major in television-film production, with the B.S. degree in applied arts and sciences.

Teaching major in journalism for the single subject teaching credential in English/journalism.

Teaching major speech communication for the single subject teaching credential in English/speech.

Minor in journalism.

Minor in speech communication.

Minor in telecommunications and film.

The Van Deerlin Chair in Communication

More than 40 major communications companies contributed to establish The Van Deerlin Chair in Communication. The Chair serves as the center for the study of public policy issues affecting the communications/information field, the area in which Lionel Van Deerlin was vitally concerned during his 18 years in Congress. The current holder of the Chair is John M. Eger, president of Worldwide Media Group, Inc., and former senior vice president of the CBS Broadcast Group.

The Majors

Journalism. Journalism education emphasizes the training of writers, reporters, and editors for mass media. It also seeks to prepare and guide students interested in pursuing careers in a wide range of informational, interpretative, and promotional mass communication fields.

The courses offered by the School of Communication are designed to give students a working knowledge of the skills, concepts, and values needed to succeed as competent professional communicators. They focus on the basic elements of factual and persuasive writing, editing, communications law and theory, history, and responsibility of mass communication.

Career opportunities for journalism graduates are diverse and in competitive fields, including advertising, book editing and publishing, freelance writing, industrial journalism, magazines, mass communication research, news agencies, newspapers, public relations, radio, television, and teaching.

Speech Communication. Speech communication is the study of all aspects of human communication. The major in speech communication offers a curriculum that recognizes the importance of communication theory and skills in an increasingly complex society. Communication concepts and practices are grounded in traditional and contemporary theories and research methods to ensure the broadest possible education and the most direct utilization of knowledge for both immediate and future goal attainment. Appreciation for, and personal growth in, social and political relationships and ethical standards are also goals of the curriculum.

Recent surveys of business, industry, and other institutions indicate the most important talent required of prospective employees is effective communication skills. Thus, providing career-relevant training is another major theme of the curriculum. Instruction in logical and practical reasoning, interpersonal skills, interviewing, and other skills complement training in public speaking and argumentation.

Majors also may elect a program leading to a single subject teaching credential which entitles them to teach speech, English, and literature at the K-12 level.

In addition, the major in speech communication is particularly well suited to prepare students for postgraduate education in communication, law, and other areas. An advanced degree in speech communication prepares students to teach and do research in communication at universities or to work in the corporate world as communication experts, trainers, or personnel or human resource specialists.

In addition to classroom experiences, the school sponsors a debate and forensics team that competes nationally; individual students' speaking skills are sharpened through participation in a program that consistently ranks in the top ten nationwide.

Telecommunications and Film. As a result of the rapid development of new communications technology and applications, there is an increasing demand for effective communicators and management personnel in the fields of telecommunications and film. The goals of the major are to provide students with theoretical understanding, operational skills, and experience in the various phases of radio, television, and film production and management.

To fulfill these needs, the curriculum provides a professionally oriented, academically sound education in the art, management, and science of communication through the media of telecommunications and film.

To name but a few, career opportunities for telecommunications and film majors include positions in television, with positions in management, sales, programming, writing, producing and directing, and art direction; in radio, with positions in management, sales, programming, writing, and producing; in film, with positions in cinematography, directing, editing, producing, art direction, writing, studio management and production management; in public relations and advertising, and in new technologies, including computer conferencing, data networks, multimedia, and satellites.

Journalism Major

With the B.A. Degree in Liberal Arts and Sciences
(Premajor Code: 06020) (Major Code: 06021)

Accredited by the Accrediting Council on Education for Journalism and Mass Communication.

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

Journalism majors must complete 33 units in journalism, 27 of which must be upper division units. The maximum number of journalism units that will be credited toward the degree for graduation is 34. A maximum of six lower division units in journalism may be applied to the total.

A minimum of 90 units of coursework applicable to the bachelor's degree must be completed outside the areas of journalism, film, broadcasting, television, photography, and mass communication.

A minor is required; however, to preserve an appropriate balance between journalism/mass communication courses and courses in liberal arts and sciences, journalism majors may not minor in telecommunications and film. Journalism students planning to minor in any College of Business Administration discipline should contact the business administration office for pre-minor requirements.

Students are required to achieve a passing score on the Journalism grammar, spelling, and punctuation test before enrolling in most journalism courses.

Lower division activity/production courses in newspaper, magazine, or broadcasting may not be applied toward the B.A. in journalism.

IMPACTED PROGRAM. The upper division journalism major is designated as an impacted program and specific regulations related to admissions are imposed. Student *may enter* the University under the "Pre-Journalism" major (06020) and then proceed to complete the steps to become admitted to the upper division journalism major. Steps include: Completing 56 units with an overall minimum grade point average of 2.5, passing the Grammar, Spelling and Punctuation test or course "Grammar for Journalists," and completing Journalism 200 and 220 with grades of C or better.

Emphasis in Advertising

Preparation for the Major. Journalism 200 and 220. (6 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. School screening in Journalism 310W with a grade of C (2.0) or better, or passing the University Writing Examination, or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in journalism to include Journalism 310W, 460, 463, 465, and 466; 12 units of upper division electives.

Emphasis in News-Editorial

Preparation for the Major. Journalism 200 and 220. (6 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. School screening in Journalism 310W with a grade of C (2.0) or better, or passing the University Writing Examination, or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in journalism to include Journalism 310W; 326; either 320 and 529, or 441 and 443; 502; 12 units of upper division electives.

Emphasis in Public Relations

Preparation for the Major. Journalism 200 and 220. (6 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. School screening in Journalism 310W with a grade of C (2.0) or better, or passing the University Writing Examination, or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in journalism to include Journalism 310W, 480, 481, 509, and 585; 12 units of upper division electives.

Emphasis in Radio-TV News

Preparation for the Major. Journalism 200 and 220. (6 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. School screening in Journalism 310W with a grade of C (2.0) or better, or passing the University Writing Examination, or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in journalism to include Journalism 310W, 470, 474, 475, and 502; 12 units of upper division electives.

Speech Communication Major

With the B.A. Degree in Applied Arts and Sciences
(Major Code: 15061)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Speech Communication 105, 135, 160, 190, and three units of electives in Speech Communication beyond General Education requirements. (15 units)

All speech communication majors must satisfy either a foreign language or a mathematics competency requirement.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of preparation for the major. Refer to section of catalog on "Graduation Requirements."

Mathematics Competency Requirement. May be satisfied by three semesters of college mathematics, or a statistical sequence such as Mathematics 250, 350A, 350B (which is highly recommended); or Political Science 201*, 515A, 515B; or Psychology 270, 472; or Sociology 201*, 406, 408.

* Additional prerequisites required.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 33 upper division units to include Speech Communication 335, 450, 535; at least six units selected from Speech Communication 406, 445, 475, 580, 592; at least six units selected from Speech Communication 302, 307, 361, 391, 407, 415, 485, 491;

and twelve units of speech communication electives from the 300 level and above. No more than three units from Speech Communication 302, 361; and no more than three units from Speech Communication 485.

Telecommunications Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 06031)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in telecommunications and film courses can apply to the degree.

The B.A. degree is designed for students interested in developing a more liberal education as they develop professional and conceptual competencies in electronic and film media. The B.A. degree permits flexible programs of courses in and out of the department within two areas of specialization: *Telecommunications and Film* which can prepare students in broad areas such as electronic media advertising, news, media communication theory and criticism, instructional uses of media, art direction; and *Management of television, cable, radio, telecommunications facilities, and telecommunications systems theory and design.*

A minor is required with this major.

Impacted Program. The telecommunications major is designated as an impacted program and has enrollment limitations and requires additional application procedures. Consult the school office for admissions criteria and procedures.

Preparation for the Major. Telecommunications and Film 100, 110, 160, and six units from Telecommunications and Film 121, 122, or 123. (15 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to the section of the catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or Rhetoric and Writing 305W with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units in telecommunications and film which fulfill the requirements in one of the following specializations:

Specialization in Telecommunications and Film

Telecommunications and Film 320, 330, and 18 units selected with the approval of the department.

Specialization in Management

Telecommunications and Film 375, 500 or 501, 505, and 590, and 12 units from Telecommunications and Film 310, 330, 400, 440, 497, 500, 501, 530, 535, 540, and 575.

Television-Film Production Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 06031)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

The B.S. degree is designed to prepare students for professions in television and film production or for occupations where extensive knowledge of designing messages to be presented by these media is required. Training is specifically directed toward assisting students in their effort to seek professional work in various fields of television and film production as writers, producers, directors, and art directors.

A minor is not required with this major.

Impacted Program. The television-film production major is designated as an impacted program and has enrollment limitations and requires additional application procedures. Consult the school office for admissions criteria and procedures.

Preparation for the Major. Telecommunications and Film 100, 110, 121, 122, 123, 160, 250, 260, and 280. (27 units)

Upper Division Writing Requirement. Passing the University Writing Examination or Rhetoric and Writing 305W with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units in telecommunications and film to include Telecommunications and Film 320, 330, 401, 410; 12 units selected from Telecommunications and Film 522, 550, 551, 560, and 580; six units in an allied professional sequence; and six units of electives.

Allied Professional Sequences*

Advertising: Journalism 460, 463, 465, 466, 480; Marketing 370, 371, 372, 373, 376; 470, 472; Psychology 322; Telecommunications and Film 400, 440, 540.

Communication: Political Science 426; Psychology 321, 326, 340; Sociology 410, 430, 537; Speech Communication 307, 360, 406, 407, 445, 451, 475, 491, 535, 580, 589, 592.

Criticism: Linguistics 551; Music 351; Philosophy 523, 531, 541, 542; Speech Communication 530; Telecommunications and Film 320.

Education: Educational Technology 540, 541, 544.

Information Systems: Information and Decision Systems 480, 482.

International Media: English 548; Geography 312; Political Science 375, 481, 482; Speech Communication 475; Telecommunications and Film 363, 590.

Law and Government: Journalism 502; Political Science 335, 346, 347A, 347B; Telecommunications and Film 505.

Management: Management 350, 352, 356, 453, 454; Telecommunications and Film 401, 500.

Mass Communication: Journalism 408, 500, 503, 509; Political Science 310, 426; Psychology 322, 342; Sociology 335, 406, 410, 430, 450, 456, 459; Telecommunications and Film 400, 562, 575.

News: Journalism 310, 320, 425, 474, 475, 502, 529; Telecommunications and Film 310, 505.

Performance: Drama 431, 445, 532; Speech Communication 307, 308, 592; Telecommunications and Film 390.

Playwriting: Drama 325; English 577, 579 (Screenplay only), 581W, 587; Telecommunications and Film 410.

Production Design and Management: Drama 440, 447, 448A, 448B, 540; Industrial Technology 320, 422; Psychology 320, 321; Telecommunications and Film 550, 551.

Research Methods: Telecommunications and Film 400; Information and Decision Systems 301, 366; Journalism 509; Psychology 322, 342, 470; Sociology 406, 407.

* Additional prerequisites required for courses in these sequences. The same course may not be used to fulfill the Allied Professional Sequence if it is used in filling a major requirement.

Journalism Major

For the Single Subject Teaching Credential in English/Journalism
With the B.A. Degree in Liberal Arts and Sciences
(Premajor Code: 06020) (Major Code: 06021)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education. No more than 33 units in journalism courses can apply to the degree. A minimum of 90 units of coursework applicable to the bachelor's degree in journalism must be completed outside the areas of journalism, film, broadcasting, television, photography, and mass communication.

The single subject teaching credential qualifies graduates to teach in grades K-12 in a specific subject area. Most candidates prepare to teach in grades 7-12 (usually junior or senior high school) or in a middle school setting (usually grades 6-8).

A major in journalism selected from any one of the emphases in journalism may be used by students in policy studies or teacher education as an undergraduate major for the B.A. degree in liberal arts and sciences.

Preparation for the Major. Twenty-seven units selected from Journalism 200, 220, Linguistics 101, Rhetoric and Writing 100 and 200. Three units selected from Drama 120 or Humanities 140. Three units selected from Comparative Literature 270A, 270B, or English 220. Six units selected from English 250A-250B or 260A-260B.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. School screening in Journalism 310W with a grade of C (2.0) or better, or passing the University Writing Examination, or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 54 upper division units in Journalism to include Journalism 326, 443, 460, 502, English 533, Rhetoric and Writing 509, Speech Communication 335. Twelve units selected from Journalism 320, 408, 425, 441, 463, 470, 480, 490, 500, 503, 530. Six units selected from Drama 460B, English 541A, 541B, Speech Communication 360, 391, 407, 475, or 491. Three units selected from Comparative Literature 562, Drama 310, or 480. Three units selected from Linguistics 420 or 530. Three units selected from Africana Studies 460, 461, 462, 463, 464, American Indian Studies 430, English 519, 520, Mexican American Studies 335, 464. Three units selected from the following area not covered under preparation for the major: English 560A or 560B for students who took English 250A or 250B; English 522, 523, 524, or 525 for students who took English 260A or 260B.

Speech Communication Major

For the Single Subject Teaching Credential in English/Speech With the B.A. Degree in Applied Arts and Sciences (Major Code: 15061)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education.

This major may be used by the students in policy studies or teacher education as an undergraduate major for the B.A. degree in applied arts and sciences.

The single subject teaching credential qualifies graduates to teach in grades K-12 in a specific subject area. Most candidates prepare to teach in grades 7-12 (usually junior or senior high school) or in a middle school setting (usually grades 6-8).

Preparation for the Major. Speech Communication 103, 135, 160; Linguistics 101; Rhetoric and Writing 100, 200. Select either Speech Communication 105 or 190. Three units selected from Comparative Literature 270A, 270B, or English 220. Three units selected from either Drama 120 or Humanities 140. Three units selected from Drama 115, English 280, 281, Journalism 200, 220. Six units selected from the following pair of courses English 250A and 250B, or English 260A and 260B. (36 units)

Upper Division Writing Requirement. English 500W or Journalism 310 or Rhetoric and Writing 500 W with a grade of C (2.0) or better.

Major. A minimum of 39 upper division units to include Speech Communication 302, 335, 361, 475, 503, English 533; Rhetoric and Writing 509. Three units selected from Speech Communication 360, 445, 450, 530, 535, 589, or 592. Three units selected from Comparative Literature 562, Drama 310, or Drama 480. Three units selected

from either Linguistics 420 or 530. Three units selected from Africana Studies 460, 461, 462, 463, 464, American Indian Studies 430, English 519, 520, Mexican American Studies 335, 464. Three units selected from English 522, 523, 524, 525 (for students who have completed English 260A or 260B), 560A, 560B (for students who have completed English 250A or 250B). Six units selected from any two of the following groupings (select one three unit course from two separate groups): Speech Communication 360, 391, 407, 491; or Drama 460B, English 541A, 541B; or Journalism 408; or one upper division linguistics course.

Journalism Minor

The minor in journalism consists of 18-21 units in one of the following areas:

Advertising: Journalism 200, 220, 310W, 460, 463, 465 and 466. (21 units.)

News-Editorial: Journalism 200, 220, 310W, 320, 326, and one of the following: 441, 502 or 529. (18 units.)

Public Relations: Journalism 200, 220, 310W, 480, 481, and 585. (18 units.)

Radio-TV News: Journalism 200, 220, 310W, 470, 474 or 475, and 502. (18 units.)

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Speech Communication Minor

The minor in speech communication consists of a minimum of 24 units to include 12 units selected from Speech Communication 135, 160, 204, 291; and 12 units of electives most appropriate to the student's major selected in consultation with the speech communication undergraduate adviser from one of the following areas:

Communication History: Speech Communication 450, 451, 580, and 589.

Communication Forms: Speech Communication 302, 307, 309, 360, 361, 485, and 491.

Communication Relationships: Speech Communication 406, 415, 475, 530, 535 and 592.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Telecommunications and Film Minor

The minor in telecommunications and film consists of a minimum of 15 units, 12 units of which must be in upper division. The minor is a focused pattern of courses selected with the approval of the departmental adviser for minors. Requirements for admission to the minor are sophomore standing (30 or more units completed) with a minimum grade point average of 3.0 overall and a grade of B or better in either Telecommunications and Film 100 or 160.

Students in the minor must select one of the following areas:

Film as Art and Communications: Telecommunications and Film 160, 320, 330*, 363, 364, and 562.

Telecommunications: Telecommunications and Film 100, 330*, 375, 400, 440, 500, 501, 505, 530*, 535, 540, 575, 590.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

* Additional prerequisites required.

Courses

Journalism

LOWER DIVISION COURSES

200. Introduction to Mass Communication (3) (CAN JOUR 4)

Mass media and their interrelationships. The media and the consumer. Value and function of the mass media, particularly news media, in contemporary society. Problems and responsibilities.

220. Writing for the Media (3) (CAN JOUR 2)

One lecture and four hours of activity.

Prerequisites: Sophomore standing; ability to type; and satisfactory score on journalism grammar, spelling, and punctuation test. **Proof of completion of prerequisites required:** GSP test score and proof of sophomore standing.

Introduction to writing techniques for the mass media. Laboratory practice in informational and persuasive writing, evaluation, judgment; emphasis on newspaper journalism.

Speech Communication

LOWER DIVISION COURSES

90. Improving Speaking Confidence (1) Cr/NC I, II

Two hours of activity.

Prerequisite: Must be taken prior to or concurrent with Speech Communication 103.

Anxiety reduction and skill enhancement for students experiencing anxiety in oral communication situations. Not applicable to a bachelor's degree or general education. (Formerly numbered Speech Communication 102.)

103. Oral Communication (3) I, II (CAN SPCH 4)

Training in fundamental processes of oral expression; method of obtaining and organizing material; outlining; principles of attention and delivery; practice in construction and delivery of various forms of speeches. Not open to students with credit in Africana Studies 140 or Mexican American Studies 111A.

105. Introduction to the Discipline of Speech Communication (3) I, II

Speech communication as an academic and professional discipline, its associations and journals, history and traditions, relationships to other disciplines, research methodologies, and careers for graduates. Intended for students who are either considering or who are committed to a speech communication major or minor. This class should be completed as early as possible.

135. Principles of Communication (3) I

Identification, description, and study of fundamental communication principles such as language, nonverbal codes, perception and empathy. Emphasis on the interpersonal communication context.

160. Argumentation (3) I, II (CAN SPCH 6)

Argument as a form of discourse; organizing, supporting, presenting and refuting arguments in a variety of formats; evaluating argument, including common fallacies in reasoning.

190. Communication Research Methods (3) II

Ways of identifying communication topics for research, formulating topics into appropriate research questions, and generating procedures to study them. Information sources available in speech communication.

204. Advanced Public Speaking (3)

Prerequisite: Speech Communication 103.

Practice in extemporaneous speaking on subjects of current interest, both national and local, with stress on organization and delivery. Not open to students with credit in Mexican American Studies 111A.

245. Interpersonal Communication (3)

Theory and application of effective interpersonal communication. Emphasis on fundamental principles and interpersonal skill development.

261. Intercollegiate Forensics (1) Cr/NC I, II

Two field trips required.

Three hours of activity and two coaching hours to be assigned. Credit for participation in intercollegiate program. Maximum credit four units for Speech Communication 261 and 361.

291. Group Discussion (3) (CAN SPCH 10)

Role of group discussion in a democratic society. Principles and methods of group discussion in problem-solving and learning situations. Practice in dealing with questions of policy and controversial issues. Development of skills in discussion preparation, participation and leadership.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

Telecommunications and Film

LOWER DIVISION COURSES

100. Survey of Telecommunications (3) I, II

Theory and operation of the broadcasting industry to include the history and regulation of broadcasting in the U.S., the social and economic setting of American broadcasting and the organization of commercial and educational radio and television stations.

110. Telecommunications and Film Writing (3) I, II

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements. Ability to type. **Proof of completion of prerequisites required:** Copy of EPT or competency scores or verification of exemption; proof of Cr in Rhetoric and Writing 97A or 97B, or notification from the Department of Rhetoric and Writing Studies. Limited to telecommunications and film majors.

Theory and practice in writing for electronic and film media. Audience analysis, problems of timing, aural style, scripting techniques.

121. Audio Production (3) I, II

Two lectures and three hours of activity.

Prerequisite: Limited to telecommunications and film majors.

Theory of audio production, use of basic audio equipment, and basic sound production. Practical experience in University sponsored productions.

122. Still and Motion Picture Photography (3) I, II

Two lectures and three hours of activity.

Prerequisite: Limited to telecommunications and film majors.

Basic film equipment and its use in preparation of photographic materials for film and TV production. Practical experience in University sponsored productions.

123. Video Production (3) I, II

Two lectures and three hours of activity.

Prerequisite: Limited to telecommunications and film majors.

Television control room, studio, and auxiliary equipment and their use in production of programs. Practical experience in University sponsored productions.

160. Cinema as Art and Communication (3) I, II

An appreciative survey of cinema in its diverse forms. Historical and stylistic influences on the aesthetic values and social implications of cinema. Illustrated by screen examples.

250. Staging and Art for Television and Film (3)

Two lectures and three hours of activity.

Prerequisites: Telecommunications and Film 122 or 123; drama majors with design for television emphasis must have approval of the emphasis adviser. **Proof of completion of prerequisite required:** Change of major form or other evidence of acceptable major code in telecommunications and film or approval from design for TV emphasis adviser in drama. Students who cannot prove prerequisite completion will be administratively dropped from class.

Aesthetic considerations and technical practices in staging, lighting, and graphics for television and film. Practical experience in university sponsored productions. (Formerly numbered Telecommunications and Film 120.)

260. Film Techniques (3) I, II

Two lectures and more than three hours of activity.
Prerequisites: Telecommunications and Film 110, 121, 122, with average grade of 2.0 or better. **Proof of completion of prerequisites required:** Copy of transcript.

Principles of film theory and practice in cinematography and editing; use of motion picture equipment. Technique and theory as they apply to the several filmic forms. Preparation of filmed materials.

280. Television Production and Directing (3) I, II

Two lectures and more than three hours of activity.
Prerequisites: Telecommunications and Film 110, 121, 122, 123, with average grade of 2.0 or better. **Proof of completion of prerequisites required:** Copy of transcript.

Theory and practice in the skills and knowledge of television production. Includes basic program types, responsibilities of director, and director's relationships to production staff.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

Journalism**UPPER DIVISION COURSES
(Intended for Undergraduates)**

NOTE: PROOF OF COMPLETION of prerequisites required for all upper division courses: GSP test score as applicable and copy of transcript.

310W. Information Gathering and Reporting (3) I, II

Prerequisites: Journalism 220 with minimum grade of C; upper division standing; ability to type; and satisfactory score on journalism grammar, spelling, and punctuation test. Satisfies the University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication.

Methods of interviewing and information gathering. Journalistic attitudes, ethics and skills. Questioning and listening. Press conferences. Nature of inference, supposition, skepticism and the adversary system. Quantification in reporting. Research resources. Field experience. (Formerly numbered Journalism 310.)

320. Public Affairs News Reporting (3) I

One lecture and four hours of activity.
Prerequisites: Journalism 310W with minimum grade of C; upper division standing; ability to type; and satisfactory score on journalism grammar, spelling, and punctuation test. Limited to journalism majors and minors, major code 06021.

Field and laboratory practice in news gathering and writing, covering news beats including courts; local governments and other news sources. Emphasis on accuracy, clarity, comprehensiveness and interpretation.

326. News Editing (3) I, II

One lecture and four hours of activity.
Prerequisites: Journalism 310W with minimum grade of C; upper division standing; ability to type; and satisfactory score on journalism grammar, spelling, and punctuation test. Limited to journalism majors and minors, major code 06021.

Copy editing, headline writing, photo cropping and sizing, page layout and editorial judgment. Practice with wire and other copy. Attention to electronic editing.

408. Mass Communication and Society (3)

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Social factors underlying nature, functions of mass media. Theories, models, research in media as culture carriers, opinion shapers; other societal interrelationships.

425. Editorial and Critical Writing (3)

Prerequisites: Journalism 320; upper division standing; and satisfactory score on journalism grammar, spelling, and punctuation test. Principles and practices in editorial and critical writing. Editorials, columns and commentary. Analysis and interpretation.

441. Magazine Article Writing (3) I, II

Prerequisites: Journalism 310W with minimum grade of C; upper division standing; and satisfactory score on journalism grammar, spelling, and punctuation test. Limited to journalism majors and minors, major code 06021.

Planning, gathering material, writing and marketing articles for specialized and general publications. Production of expository articles and marketing of at least one.

443. Magazine Editing and Production (3) II

Two lectures and three hours of activity.
Prerequisites: Journalism 310W and 441 with minimum grade of C; upper division standing; and satisfactory score on journalism grammar, spelling, and punctuation test.

Editing and mechanics in the production of magazines. Selection and preparation of editorial materials. Graphics and photo selection, cropping, captioning. Graphic production processes. Layout, preparation of dummies for magazines, booklets, brochures.

460. Principles of Advertising (3) I, II

Prerequisite: Upper division standing.
Principles of advertising, including copywriting, layout, typography, production, social responsibility, consumer and market surveys, and advertising readership studies.

463. Advertising Copy, Layout and Design (3) I, II

One lecture and four hours of activity.
Prerequisites: Journalism 310W with minimum grade of C and 460; upper division standing; ability to type; and satisfactory score on journalism grammar, spelling, and punctuation test. Limited to journalism majors and minors, major code 06021.

Preparation of copy, layout, planning and production. Graphics, typography, and visual literacy. Copy writing.

465. Advertising Research and Analysis (3) I

Prerequisites: Journalism 310W with minimum grade of C and 460; upper division standing; ability to type; and satisfactory score on journalism grammar, spelling, and punctuation test. Limited to journalism majors and minors. Concurrent registration in SPSS class.

Evaluation and use of data collecting and measurement for advertising media. Cases, practices and problems. Quantitative and qualitative characteristics of advertising.

466. Advertising Campaigns (3) II

Prerequisites: Journalism 463, and Journalism 465 or Telecommunications and Film 540; upper division standing; and satisfactory score on journalism grammar, spelling, and punctuation test.

Cases, practices and problems with advertising campaigns, including political campaigns. Decision making in copy themes, art work, media imagery. Advertising campaign targets. Evaluating results.

470. Radio-Television News Writing (3) I, II

One lecture and four hours of activity.
Prerequisites: Journalism 220 with minimum grade of C or Telecommunications and Film 110; credit or concurrent registration in Journalism 310W; upper division standing; ability to type; and satisfactory score on journalism grammar, spelling, and punctuation test.

Application of radio and television inserting principles and techniques. Emphasis on news scriptwriting using audio and video. (Not open to students with credit in Telecommunications and Film 310.)

474. Broadcast News Reporting and Editing (3) I

One lecture and six hours of activity.
Prerequisites: Journalism 310W with minimum grade of C and 470 or Telecommunications and Film 310; upper division standing; ability to type; and satisfactory score on journalism grammar, spelling, and punctuation test. Limited to journalism majors and minors, major code 06021.

Advanced practices in radio and television newswriting and script editing. Field experience investigating, writing and reporting broadcast news and feature stories. Field and laboratory practice.

475. Radio and Television News Production (3) II

One lecture and six hours of activity.
Prerequisites: Journalism 474 with minimum grade of C; upper division standing; and satisfactory score on journalism grammar, spelling, and punctuation test.

Radio and television news production principles and techniques. Audio recording and editing for radio news. Videography and editing for television news. Field and laboratory practice.

480. Principles of Public Relations (3) I, II

Prerequisite: Upper division standing.
Principles, theories, methods and objectives in public relations. Survey of public relations problems and practices.

481. Public Relations Techniques and Media Usage (3) I, II

One lecture and four hours of activity.
Prerequisites: Journalism 310W with minimum grade of C and 480; upper division standing; ability to type; and satisfactory score on journalism grammar, spelling, and punctuation test. Limited to journalism majors and minors, major code 06021.

Practical applications of public relations techniques with emphasis on writing and media usage. News releases, publications and printed materials, audio-visual techniques, speeches and special events. Field and laboratory practice.

490. Internship in Journalism (1-3) Cr/NC I, II

Prerequisites: Upper division standing; consent of instructor; satisfactory score on journalism grammar, spelling, and punctuation test; Advertising - Journalism 463; News-Editorial (Magazine) - Journalism 441 or 443; News-Editorial (Newspaper) - Journalism 320; Public Relations - Journalism 481; Radio-TV News - Journalism 474.

Supervised work with area media under the combined direction of practitioners and professors. Maximum credit three units.

496. Experimental Topics (1-3)

Prerequisites: Upper division standing and consent of instructor.
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. No more than three units in Journalism 496 may apply to the degree in journalism.

499. Special Study (1-3)

Prerequisites: Upper division standing; consent of instructor; and satisfactory score on journalism grammar, spelling, and punctuation test.

Individual study or project, normally in a research area selected by the student. Maximum credit three units.

Journalism**UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)****500. Current Problems in Mass Communication (3)**

Prerequisites: Journalism 200 or Telecommunications and Film 100 or Economics 100 or Political Science 101 or Sociology 101, and upper division standing.

Forces affecting American mass communication today: government restrictions, economics, pressure groups, censorship, mechanical developments, interrelationships of the media and society; professional ethics.

502. Law of Mass Communication (3)

Prerequisites: Journalism 200 or Political Science 102 or Telecommunications and Film 100, and upper division standing.

Libel, invasion of privacy, censorship, contempt of court, pornography. Constitutional guarantees affecting print and broadcast media. Government restrictions.

503. History of Mass Communication (3)

Prerequisites: Journalism 200 or History 110A or 110B or Telecommunications and Film 100, and upper division standing.

American journalism from colonial times to the present, with special attention to twentieth century trends and developments, including the emergent concept of social responsibility.

509. Research Methods in Mass Communication (3) I

Prerequisites: Journalism 320 or 460 or 470 or 480 or graduate standing and concurrent enrollment in SPSS class.

Exploratory and evaluation methods for mass media research programs; depth interviews, experimental designs, questionnaire construction, telephone surveys, computerized statistical analysis.

529. Investigative Reporting (3)

One lecture and four hours of activity.
Prerequisites: Journalism 320; upper division standing; and satisfactory score on departmental grammar, spelling, and punctuation test.

Development of articles of substance and depth in specialized areas. Research, analysis and interpretation of complex issues in the news. Special problems of the sustained, reportorial effort. Field and laboratory practice.

530. Media Management (3)

Prerequisites: Senior standing and twelve upper division units in journalism.

Role of manager in journalism and journalism-related organizations. Interaction of news, entertainment, advertising, circulation, production, and promotion functions as related to economic demands.

585. Problems and Practices in Public Relations (3) II

Prerequisites: Journalism 481; upper division standing; and satisfactory score on journalism grammar, spelling, and punctuation test.

Current public relations practices and problems in a wide variety of commercial, industrial, financial, governmental, cultural and social organizations.

Speech Communication**UPPER DIVISION COURSES
(Intended for Undergraduates)****301. Management of Speech Activities (1) Cr/NC I, II**

Two hours of activity.
Prerequisite: Speech Communication 103.
Planning, preparation, management and supervision of speech tournaments and other interscholastic activities under the supervision of the speech communication staff. Maximum credit two units.

302. Contemporary Forensics Problems (2) Cr/NC I, II

Prerequisites: Speech Communication 103 and 160.
Identification of significant arguments in political, economic, and social problems confronting twentieth century United States. Use of case studies to emphasize research tools leading to comprehensive analysis. Oral performance stressed. See Class Schedule for specific content. Maximum credit eight units.

307. Communication in Professional Settings (3)

Prerequisites: Speech Communication 103 and one of the following: Speech Communication 204, 245, 261, 291.

Communication principles in professional contexts including interviewing and technical and nontechnical oral presentations. Skill in meeting management.

309. Workshop in Speech (1-3) Cr/NC

Prerequisites: Speech Communication 103, 105, 204, and 307 or 361; and consent of instructor.

Study of some problems in speech communication. Maximum credit six units.

335. Human Message Systems (3) II

Prerequisite: Speech Communication 103.

Addresses communication messages holistically. Structure, development and function of linguistic and nonlinguistic message systems explored stressing their interdependent and independent effects on communication processes.

360. Argumentation Theory (3)

Prerequisites: Speech Communication 103 and 160.

The approaches to argument and the patterns and problems in argument. Consideration of implications for society. Written and oral reports.

361. Intercollegiate Forensics (1) Cr/NC I, II

Two field trips required.

Prerequisite: Speech Communication 103.

Three hours of activity and two coaching hours to be assigned. Credit for participation in intercollegiate program. Maximum credit four units for Speech Communication 261 and 361.

391. Parliamentary Procedure (3)

Prerequisite: Speech Communication 103.

Techniques and procedures for formal meeting management, with emphasis on leadership, rules, communication skills and strategies.

406. Organizational Communication (3)

Prerequisites: Speech Communication 105, 135, 160, 190. **Proof of completion of prerequisites required:** Signed department verification card.

The organization as a communication system; role of the organization in persuasive campaigns; communication strategies and problems within the organizational structure.

407. Communicative Perspectives on Interviewing (3)

Prerequisites: Speech Communication 105, 135, 160, 190. **Proof of completion of prerequisites required:** Signed department verification card.

Application of communicative theory to interviewing situations. Emphasis on perception; source, message, and receiver variables; defensive communication; feedback. Phrasing of questions, ways to enhance respondent participation, and formulation of behavioral objectives. Classroom simulation, supplemented by out-of-class interviews.

415. Nonverbal Communication (3)

Prerequisites: Speech Communication 105, 135, 160, 190, 335. **Proof of completion of prerequisites required:** Signed department verification card.

Theory and research on nonverbal aspects of speech communication, with emphasis on codes and functions.

445. Relational Communication (3)

Prerequisites: Speech Communication 105, 135, 160, 190. Recommended: Speech Communication 245. **Proof of completion of prerequisites required:** Signed department verification card.

Theory and application of effective relational communication principles in both intimate and nonintimate contexts. Theoretical and empirical evidence on communication strategies and behaviors in relationship initiation, development, and termination. Relationship of communication behaviors to relational goals.

450. Rhetorical Theory (3)

Prerequisites: Speech Communication 105, 135, 160, 190. **Proof of completion of prerequisites required:** Signed department verification card.

Development of rhetorical theory as a mechanism for generating and understanding public discourse. Theories from ancient Greece to the present.

451. Rhetorical Criticism (3)

Prerequisites: Speech Communication 105, 135, 160, 190. **Proof of completion of prerequisites required:** Signed department verification card.

Systems and approaches to description, analysis, interpretation, and evaluation of rhetorical communication.

455. Conflict Management Communication (3)

Approaches to conflict communication in international, societal, group, institutional, and interpersonal contexts.

475. Intercultural Communication (3) I, II

Prerequisites: Speech Communication 103; and completion of the General Education requirement in Foundations II.B., Social and

Behavioral Sciences required for nonmajors. Open to majors and nonmajors.

Study of communication with emphasis on the influence of cultural background, perception, social organization, language and nonverbal messages in the cross-cultural communication experience.

485. Internship in Speech Communication (1-3) I, II

Prerequisites: Speech Communication 105, 135, 160, 190; twelve units selected from Speech Communication 307, 335, 360, 406, 407, 415, 445, 475, 535, 580, 592; a 2.75 overall GPA and a 2.75 GPA in the major; and approval of the director of internships. **Proof of completion of prerequisites required:** Signed department verification card.

Prearranged and supervised fieldwork or activity extension of academic coursework in speech communication. Maximum credit six units, no more than three of which may be taken in any one semester.

491. Group Communication (3)

Prerequisites: Speech Communication 105, 135, 160, 190. **Proof of completion of prerequisites required:** Signed department verification card.

The theoretical processes of small group communication. Emphasis on the theory of group formation, interaction, procedures, and leadership.

496. Selected Topics in Speech Communication (1-4)

Prerequisite: Twelve units in speech communication.

A specialized study of selected topics from the areas of speech communication. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

Speech Communication UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

503. Instructional Communication (3)

Prerequisites: Speech Communication 105, 135, 160, 190. **Proof of completion of prerequisites required:** Signed department verification card.

Communication messages and strategies as they apply to instructional contexts. Communication within traditional instructional contexts and focus on training programs, adult workshops, and other less traditional information dissemination situations.

530. Language Analysis (3)

Prerequisites: Speech Communication 105, 135, 160, 190, 335. **Proof of completion of prerequisites required:** Signed department verification card.

Examines language from a variety of perspectives, including conversation analysis, psycholinguistics, sociolinguistics, and ethnomethodology. Focuses on language development, semantics, verbal competence, and everyday language as an interactional achievement.

535. Theories of Human Communication (3) I

Prerequisites: Speech Communication 105, 135, 160, 190. **Proof of completion of prerequisites required:** Signed department verification card.

Theoretical approaches for the study of human communications; relationship of meaning, message, and behavior in the communication process; special issues in communication theory.

580. Communication and Politics (3)

Prerequisites: Speech Communication 105, 135, 160, 190. **Proof of completion of prerequisites required:** Signed department verification card.

Contemporary political communication events and processes, with a focus on speeches, debates, and campaigns.

584. Communication in Law and Medicine (3)

Prerequisites: Speech Communication 105, 135, 160, 190. **Proof of completion of prerequisites required:** Signed department verification card.

Courtroom interrogation and testimony and medical diagnostic interactions studied as unique types of everyday conversation. Communication practices and constraints in institutional contexts.

589. Ethical Issues in Communication (3)

Prerequisites: Speech Communication 105, 135, 160, 190. **Proof of completion of prerequisites required:** Signed department verification card.

Classical and modern ethical concepts and issues in communication.

590. Quantitative Methods in Communication (3) I

Prerequisites: Speech Communication 105, 135, 160, 190. **Proof of completion of prerequisites required:** Signed department verification card.

Philosophy of social science, research design, and statistical applications to communication problems.

592. Persuasion (3)

Prerequisite: Speech Communication 103. Open to majors and nonmajors.

Key variables and theories in the persuasion process: persuasive sources, messages, receiver variables, propaganda, brainwashing, and cognitive, behavioral and social theories of persuasion. Not applicable to the M.A. degree in speech communication.

593. Qualitative Methods in Communication Research (3)

Prerequisites: Speech Communication 105, 135, 160, 190. **Proof of completion of prerequisites required:** Signed department verification card.

Observation of interaction and analysis of data gathered in everyday communication settings. Historical and contemporary assumptions, methods, and theoretical implications of employing recordings, transcriptions, interviews, and texts as tools for the discovery of communication patterns.

596. Selected Topics in Speech Communication (1-3)

Prerequisite: Senior standing or above.

Specialized study. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

Telecommunications and Film UPPER DIVISION COURSES (Intended for Undergraduates)

310. Radio and Television News Writing and Editing (3)

Prerequisite: Ability to type.

Gathering, writing and editing news in special forms required by radio and television. Not open to students with credit in Journalism 470.

320. Film and Video Aesthetics (3) II

Prerequisite: Telecommunications and Film 160.

Ways cinematic texts (films and video) work as language systems and complex cultural products. Major film and video theorists analyzed according to their contribution to the field.

325. Video and Film Production for Non-Majors (3) I, S

Two lectures and three hours of laboratory.

Prerequisite: Upper division standing.

Technical and aesthetic principles and practices applicable to nonfictional and fictional presentations by video and film. Practical experience in basic video and film production and postproduction techniques. Not open to telecommunications and film majors.

330. Socio-Cultural Aspects of Media (3) I

Prerequisites: Telecommunications and Film 100 and 160.

Social and cultural dimensions of communication media. Media structures, uses, and effects at national and international levels. Critical and ethical questions in a context of humanities and popular arts. Not open to students with credit in Journalism 408.

363. International Cinema (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Foreign feature films as expression of national cultures. Maximum credit six units of which three units may be applicable to General Education. May be repeated with new content. See Class Schedule for specific content.

364. Film Classics (3) I, II

Prerequisite: Upper division standing.

Viewing and analysis of those American and foreign theatrical films, particularly of the sound era, which represent milestones in the development of the cinema. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

375. Infrastructure of the Information Age (3) I

Prerequisite: Telecommunications and Film 100. Technologies and institutions critical to those responsible for communication and information services as an information society.

390. Broadcast and Film Performance (3) II

Two lectures and three hours of activity.

Prerequisite: Drama 110.

Preparation and delivery of materials before the microphone and camera. Practical experience in University sponsored productions.

400. Electronic Media Research (3) I

Prerequisite: Telecommunications and Film 100.

Research in radio and television decision-making processes. Methodologies, analyses and applications of audience, programming, and advertising research.

401. Business Aspects of Television and Film Production (3) II

Prerequisites: Telecommunications and Film 260 or 280 or 325. Normally taken concurrently with Telecommunications and Film 560 or 580. **Proof of completion of prerequisites required:** Copy of transcript.

Financing, preproduction planning, and postproduction of television and film.

410. Script Writing for Television and Film (3)

Prerequisites: Telecommunications and Film 260 or 280, and satisfaction of the English Placement Test and Writing Competency requirements. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Development of a single program and series ideas. Scripting of dramatic original and adaptation forms, and the documentary. (Formerly numbered Telecommunications and Film 510.)

440. Electronic Media Commercial Practices (3)

Prerequisite: Twelve units in telecommunications and film.

Structure and procedures in broadcast advertising organizations, policies, training, and evaluation of research tools.

495. Workshop in Telecommunications and Film (1-3)

Study of some problem in radio, television or film. Maximum credit six units. (Formerly numbered Telecommunications and Film 495A.)

496. Experimental Topics (1-3)

Prerequisites: Upper division standing, permission of instructor. Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

497. Internship in Telecommunications and Film (3) Cr/NC I, II

Supervised work in area telecommunications and film organizations under combined supervision of professionals and professors. (Formerly numbered Telecommunications and Film 495B.)

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

**Telecommunications and Film
UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)**

500. Electronic Media Management (3)

Prerequisite: Telecommunications and Film 100. **Proof of completion of prerequisite required:** Copy of transcript.

Revenue generation, marketing, programming, social responsibilities, and current developments in radio, television, cable, and related industries. Planning, organizing, actuating, and controlling in electronic media organizations.

501. Management of Telecommunication Systems (3) II

Prerequisite: Telecommunications and Film 375. **Proof of completion of prerequisite required:** Copy of transcript.

Organization and administration of telecommunication systems, with emphasis on structure, policy environment, and principal institutions affecting non-broadcast telecommunication.

505. Government and Telecommunications (3) II

Prerequisite: Telecommunications and Film 100.
Responsibilities of broadcasters as prescribed by law, governmental policies and regulations, and significant court decisions.

522. Film and Television Cinematography (3) I

Two lectures and three hours of laboratory.
Prerequisites: Telecommunications and Film 260, 280, and 320. **Proof of completion of prerequisites required:** Copy of transcript.

Advanced theory and practice of cinematography for film and television production. Practicum in cinematography problems related to control of light and image for television and film, including use of specialized equipment, film and videotape stock, location and studio shooting, and complex blocking problems.

530. Radio Programming (3) II

Two lectures and three hours of scheduled activity.
Prerequisites: Telecommunications and Film 100 and 121. **Proof of completion of prerequisites required:** Copy of transcript.
Formats, policies, production practices and research in modern programming. Student work is broadcast on KPBS-FM.

535. Television Programming (3) I

Prerequisite: Telecommunications and Film 100.
Structure of television programming. Problems such as ratings, advertisers and scheduling. Social effects and criticism of television programming.

540. Electronic Media Advertising (3)

Prerequisites: Two courses in broadcasting, journalism or marketing.
Theory, procedures, and the role of broadcast advertising, including marketing and media research, campaign planning, media strategy, time purchasing, and evaluation.

550. Art Direction for Television and Film (3) II

One lecture and four hours of activity.
Prerequisites: Telecommunications and Film 250, 260 or 280 or 325, and consent of instructor. **Proof of completion of prerequisites required:** Copy of transcript.

Aesthetic, technical, and administrative aspects of design for television and film. Experience in scenic design, construction, decoration, lighting, and special effects. Practical experience in University sponsored productions.

551. Production Design for Television and Film (3)

Prerequisites: Telecommunications and Film 250 and credit or concurrent registration in Telecommunications and Film 401.

Theory and analysis of production design concepts for television and film. Determination of stylistic and technical requirements for fictional and nonfictional productions.

560. Advanced Film Production (3) I, II

One lecture and more than six hours of activity.
Prerequisites: Telecommunications and Film 260, 410, and consent of instructor. **Proof of completion of prerequisites required:** Copy of transcript.

Practicum in direction and production of 16mm dramatic and non-dramatic films. Cameras, lighting, design, sound techniques. Experience in University sponsored productions. Maximum credit six units. (Formerly numbered Telecommunications and Film 560A-560B.)

562. Documentary and Propaganda Film/Television (3)

Prerequisite: Telecommunications and Film 160.
Analysis through viewing of persuasive concepts, techniques, and forms in international and documentary film and television programs.

565. Animated Film Techniques (3) II

Two lectures and more than three hours of activity.
Screening of representative examples and production of a film-strip or animated motion picture. Practical experience in University sponsored productions.

575. Technological Trends in Telecommunication (3)

Prerequisite: Telecommunications and Film 375.
Developments and trends in telecommunication and related technology, with their implications for the future.

580. Advanced Television Producing and Directing (3) I, II

One lecture and more than six hours of activity.
Prerequisites: Telecommunications and Film 280, 410, and consent of instructor. **Proof of completion of prerequisites required:** Copy of transcript.

Program development, presentational techniques and individual projects in the producing, direction and production of television programs. Practical experience in University sponsored productions. Maximum credit six units. (Formerly numbered Telecommunications and Film 580A-580B.)

590. International Telecommunications (3)

Prerequisite: Telecommunications and Film 100 or Journalism 200.
Comparative study of broadcasting in various world areas; economic, social and political determinants of broadcasting patterns.

596. Selected Topics in Telecommunications and Film (1-3) I, II

Prerequisite: Twelve units in telecommunications and film.
Specialized study of selected topics from the areas of telecommunications and film. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

**GRADUATE COURSES
Refer to the Graduate Bulletin.**

Communicative Disorders

In the College of Health and Human Services

OFFICE: Communications Clinic 124

TELEPHONE: (619) 594-6774

Accredited by the American Speech-Language-Hearing Association and the Council on Education of the Deaf.

Faculty

Emeritus: Davies, Earnest, Kopp, Riedman
Chair: Kramer
Professors: Allen, Cheng, Christensen, Kramer, Nichols, Novak, Seitz, Thal, Thile
Associate Professor: Wulfeck
Assistant Professors: Gutierrez-Clellen, Williams
Lecturers: Fischer, Launer, Lopes, Martinez, Scheinberg
Adjunct: Sandlin, Singh

Offered by the Department.

Master of Arts degree in communicative disorders.
Major in communicative disorders with the B.A. degree in liberal arts and sciences.
Minor in communicative disorders.
Certificate in professional services bilingual/multicultural.
Special education specialist credential for the communication handicapped.
Clinical or rehabilitative services credential.

The Major

Speech and language pathology, audiology, and education of the hearing impaired are professions which identify, help, and study persons with communicative disorders. Those entering these professions should possess a strong motivation to help individuals with genetically, physically, or psychologically caused communication problems. Preparation involves acquiring the knowledge and skills necessary to assume responsibility for assessment, education and rehabilitation of the speech, language, and hearing handicapped. The Department of Communicative Disorders is committed to preparing speech-language-hearing professionals to meet the challenges of a racially, ethnically, and linguistically diverse society.

The bachelor's degree serves as the basis for graduate and professional study in communicative disorders. There are no employment opportunities for holders of the bachelor's degree. A school credential or a master's degree, national certification and state licensure are needed for professional practice.

The undergraduate curriculum is broad, involving coursework on normal and disordered speech, language, and hearing, as well as clinical procedures. All communicative disorders majors cover a set of general studies in early coursework (18 units) before specialization (24 upper division units). Students interested in the communicative disorders program are advised to take college level courses in anatomy, biology, psychology, English, physiology, linguistics, physics, and mathematics. Studies leading to private practice, hospital work, industrial work, work in school settings, or preparation for the master's degree are similar in many ways; it is the area of specialization that serves to differentiate courses of study.

The communicative disorders minor is open to all majors but is strongly recommended for those in special education or the social and behavioral sciences who wish to broaden their competencies in a related applied discipline.

The master's degree is an advanced degree for those wishing to work professionally as a speech-language pathologist, speech and hearing scientist, audiologist and/or deaf educator.

The Bilingual Certificate Program provides the theoretical background and practical experience that will enable qualified speech-language pathologists to work effectively with children from bilingual and multicultural communities.

Positions in communicative disorders are available in many public and private settings working with the speech, language, and hearing impaired and the deaf-blind. Graduates with certification or licensure work in rehabilitation centers, schools, hospitals, private agencies, private practice, industry, research, and university teaching and research centers. Career opportunities are particularly good for minority, bilingual or bicultural persons.

Communicative Disorders Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 12201)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in communicative disorders courses can apply to the degree.

A minor is not required with the major.

Preparation for the Major. Passing the Mathematics Departmental Placement Examination, Part IA; Communicative Disorders 106, 110, and 205; Physics 201; Psychology 101 and 260; Psychology 270 or Sociology 201. (21 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to the section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Communicative Disorders 396W with a grade of C (2.0) or better, or passing the University Writing Examination.

Major. A minimum of 24 upper division units in communicative disorders to include Communicative Disorders 320, 321, 322, 340, 340L, 500, and seven units of electives selected from Communicative Disorders 350, 459, 501, 505, 511, 512, 513, 517, 539, 542, 550.

Communicative Disorders Minor

The minor in communicative disorders consists of 20 units in communicative disorders to include Communicative Disorders 106, 205, 320, 321, 322, 340*, and one of the following: Communicative Disorders 350 or 500. Communicative Disorders 341 is not required for the minor.

Prerequisites for the minor include Communicative Disorders 110, Physics 201, Psychology 101 and 260. (12 units.)

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

* Prerequisites for this course waived for students in this minor.

Credentials

The Department of Communicative Disorders offers academic and practica coursework applicable to two credentials in the Ryan Credential Program. Students desiring to work in the public schools with speech, language, or hearing-impaired pupils may choose the Special Education Specialist Credential for the Communication

Handicapped (CH) or the Clinical or Rehabilitative Services Credential (CRS). Each credential is competency-based, that is, specified competencies have been identified as requirements for areas of specialization by the Commission for Teacher Credentialing. Candidates may satisfy institution requirements, therefore, by either satisfactory completion of required courses or their equivalency, or by demonstrating equivalent competencies by experience or examination. Candidates may enter the CH or CRS credential programs at undergraduate or graduate levels.

Each credential has designated areas of specialization. Students wishing to prepare to be Teachers of the Deaf or Deaf-Blind are obliged to meet the requirements of the CH credential. Students preparing to serve as School Audiologists must follow the CRS credential program. Students desiring preparation as itinerant language, speech and hearing specialists must pursue the CR-S credential program. Students desiring preparation as classroom teachers of severe language handicapped (or Aphasic) (Special Class Authorization) (SCA) pupils may pursue the CR-S or CH credential.

A master's degree will be required of all candidates graduating with a credential.

Special Education Specialist Credential for the Communication Handicapped (Credential Code: 00461)

The Special Education Specialist Credential for the Communication Handicapped prepares students for an emphasis in one or more of the following areas of handicap:

- Deaf and Severely Hard of Hearing
- Deaf-Blind
- Severe Oral Language (including aphasia)
(Special Class Authorization) (SCA)
- Speech and Hearing

The Special Education Specialist Credential for the Communication Handicapped specifies a sequence of communicative disorders courses plus a sequence of education courses.

Admission Requirements

1. Formal application to the Department of Communicative Disorders.
2. Interview with a faculty member in the Department of Communicative Disorders.
3. Admission to the program for the Single Subject Credential (Secondary) or Multiple Subject Credential (Elementary)—or a basic teaching credential.
Students should consult with appropriate advisers in the College of Education for specific requirements.
4. Students applying to the program at the postbaccalaureate level must satisfy the admission requirements of the department for classified graduate standing.
5. Completion of Special Education 500 and 501.

Program

Persons interested in the Special Education Specialist Credential shall:

1. Concurrently or prior to completion of the specialist credential, complete the single subject credential (preliminary or clear) or the multiple subject credential (preliminary or clear). Students may choose to pursue either a. or b.:
 - a. Major in Liberal Studies (offered by the College of Education) in conjunction with specified communicative disorders courses.
 - b. Pursue a departmental major; complete specified prerequisites for the College of Education; pass the National Teacher Examination prior to entering the College of Education professional education sequence.
2. Complete a minimum of one year of study, including:
 - a. The Special Education generic coursework: Special Education 500, 501.
 - b. Courses outside of the Department of Communicative Disorders including Psychology 101, 260, Physics 201,

c. Advanced work in the area of specialization in the Department of Communicative Disorders including:

- (1) Communication Handicapped Specialization generic coursework: Communicative Disorders 106, 159, 205, 320, 321, 322, 340, 340L, 500, 511, 512, 513, 568 or 671 or 673 and 953*.

* Additional prerequisites required for this course.

- (2) Additional coursework required for the specific area of emphasis within the credential (Severe Oral Language, Deaf, Deaf-Blind, Speech and Hearing), selected by the student in conjunction with an adviser.

3. A minimum of 30 postbaccalaureate semester units which must include the courses for a master's degree, is required of all candidates.

Clinical or Rehabilitative Services Credential (Credential Code: 00900)

Clinical or Rehabilitative Services (CRS) Credentials are available in the following areas:

- Language, Speech and Hearing (LSH)
- Audiology
- Severe Language Handicapped/Aphasic (SLH)
(Special Class Authorization) (SCA)

A minimum of 30 postbaccalaureate semester units which must include the courses for a master's degree, is required of all candidates. The following generic courses in Communicative Disorders are required: Communicative Disorders 106, 110, 205, 320, 321, 322, 340, 340L, 500, 511, 517, 525, 526, 541, 546, 630 and 671 or 673. Courses from other departments include Psychology 101 or Sociology 101; Psychology 260 or Biology 150; Psychology 330; Family Studies and Consumer Sciences 271* or 697*; Physics 201; and Special Education 500.

The Advanced Specialization Program in Language, Speech and Hearing (LSH) requires the following additional courses: Communicative Disorders 501, 512, 513, 546, 614, 618, 619, 626, 929, and 933. Courses from other departments include Linguistics 553.

The Severe Language Handicapped (SLH) credential requires the following courses within the department in addition to those required for the LSH credential: Communicative Disorders 655, 929, and 933 (SLH class placement). Courses in other departments include Teacher Education 637, 638, 910A, 930A; Special Education 501.

In addition to the generic program, the Advanced Specialization Program in Audiology requires the following courses within the Department of Communicative Disorders: Communicative Disorders 159, 512, 513, 542, 545, 550, 600*, 610, 611, 644, 647, 648 (Pediatrics) 656*, 657, 929 and 933 (Audiology class placement).

* Prerequisites not required for students in this credential.

* Consent of instructor.

Certificates and Licensure

Preparation Leading to the Certificate of Clinical Competence from the American Speech-Language-Hearing Association

Students may complete the academic and clinical practice requirements leading to the Certificate of Clinical Competence in Speech-Language Pathology (CCC-Sp) or to the Certificate of Clinical Competence in Audiology (CCC-A) given by the American Speech-Language-Hearing Association (ASHA). The certificate requires 60 units of coursework, 30 units of which must be completed at the graduate level; 300 clock hours of supervised clinical experience, 150 hours of which must be completed at the graduate level; a clinical fellowship year; and a national examination. The academic and practical requirements must meet certain specifications. Consult an adviser in the area in which certification is desired for specific information.

Preparation Leading to the Professional Certificate from the Council on Education of the Deaf

Students may complete the academic and practica requirements leading to the Professional Certificate given by the Council on Education of the Deaf. The Professional Certificate requires a specific pattern of courses and teaching experiences. Consult an adviser in the Program for Education of Hearing Impaired for more information.

Preparation Leading to State Licensure in Speech Pathology or Audiology

Students may complete the academic and clinical practicum requirements leading to California State Licensure in Speech Pathology or in Audiology, a legal requirement for all individuals professionally employed in nonpublic school settings. The Speech Pathology and Audiology Examining Committee which operates within the California State Board of Medical Quality Assurance requires evidence of completion of 24 semester hours of coursework in the area (Speech Pathology or Audiology) in which the license is to be granted, 275 clock hours of clinical experience, nine months of full-time experience (Required Professional Experience), and a national examination. Most Licensure and ASHA Certification requirements may be fulfilled concurrently. Consult an adviser in the area in which licensure is desired for specific information.

Liability Insurance

Students enrolled in Communicative Disorders 340L, 341, 526, 545, 546, 556, 626, 645, 646, 656, 933 are required to purchase professional liability insurance.

Courses

LOWER DIVISION COURSES

106. Communicative Disorders (3) I, II

Orientation to field of speech pathology and audiology. Survey of communicative disorders, covering all areas of exceptionality, normal growth and development as it relates to speech and language. Waiver of this course is permitted only upon satisfactory passage of a competency examination.

108. Oral Communication Laboratory (1) Cr/NC I, II

Two hours of laboratory.
Prerequisite: Consent of instructor.
Individual laboratory training on specific speech problems. Student chosen through testing by Department of Communicative Disorders.

110. Observation: Communicative Disorders (2) Cr/NC I, II

One lecture and two hours of observation per week.
Prerequisites: Credit or concurrent registration in Communicative Disorders 106; affidavit for Certificate of Clearance.
Observation and discussion of diagnosis and remediation with speech-disordered and hearing-impaired children in varied clinical settings. Observation in the public schools. Satisfies credential and certification requirements.

159. Beginning American Sign Language (3)

Introduction to American Sign Language syntax, semantics and use. Development of beginning level communicative competence. (Formerly numbered Communicative Disorders 358.)

159L. Beginning American Sign Language Laboratory (1)

Prerequisite: Concurrent registration in Communicative Disorders 159.
Practice and review of basic sign language skills, including community site projects. (Formerly numbered Communicative Disorders 358L.)

205. Introduction to Audiology (3) I, II

Prerequisites: Credit or concurrent registration in Physics 201. Qualification on Mathematics Departmental Placement Examination, Part IA.

Audiology in diagnosis and rehabilitation of hearing impairment, medical practice, hearing conservation and research. Includes physics of sound, decibel, and ear anatomy as applied to fundamentals of audiologic assessment and tuning fork tests.

259. Intermediate American Sign Language (2)

Prerequisites: Communicative Disorders 159 and 159L.
Intermediate level course in use and understanding of American Sign Language (ASL). (Formerly numbered Communicative Disorders 458.)

259L. Intermediate American Sign Language Laboratory (1)

Prerequisites: Communicative Disorders 159 and 159L.
Laboratory experience to develop intermediate communication skills using American Sign Language. (Formerly numbered Communicative Disorders 458L.)

289. Advanced American Sign Language (3)

Prerequisite: Communicative Disorders 259.
Development of communicative competence in ASL at advanced level. Not open to students with credit in Communicative Disorders 558.

289L. Advanced American Sign Language Laboratory (1)

Prerequisite: Communicative Disorders 259 or demonstrated competence in intermediate American Sign Language.
Weekly laboratory session to practice receptive and expressive American Sign Language.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

320. Phonetics (3) I, II

Two lectures and three hours of laboratory.
Auditory, kinesthetic and visual analysis of the sounds of the English language, including regional and foreign dialect and disordered speech. Competency in I.P.A. broad transcription and introduction to narrow transcription.

321. Anatomy, Neurology, and Physiology of Speech (4) I, II

Three lectures and three hours of laboratory.
Prerequisite: Biology 150 or Psychology 260. Recommended: Credit or concurrent registration in Communicative Disorders 106.
Anatomy and physiology of neural, respiratory, phonological, and articulatory systems related to speech.

322. Psychological Foundations of Communicative Disorders (3) I

Prerequisites: Communicative Disorders 106; Psychology 101. Recommended: Credit or concurrent registration in Psychology 330.
Conceptual and theoretical bases for understanding communication as a psychological process determined by principles of learning within social contexts. Application of theories of personality, behavior and cognitive social learning to speech and language development, pathology, assessment and remediation. For students in all areas of communicative disorders.

340. Audiometry: Principles (3)

Prerequisites: Communicative Disorders 205, Physics 201, Psychology 260 and concurrent registration in Communicative Disorders 340L.
Anatomy and physiology of the human ear, theories of hearing, transmission, measurement of sound, medical aspects, pathology and surgery of the ear, survey of current audiometric techniques and diagnostic implications of basic test battery.

340L. Techniques of Audiometry (1) I, II

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Communicative Disorders 340.

Laboratory experience with pure tone, speech, and impedance audiometric tests. Audiological competencies needed by nurses for the California School Audiometrist Certificate.

350. Introduction to Deaf Culture (3)

American deaf community. Focus on language, social practices, evolution of cultural identity. Practicum (with ASL interpreters if necessary) will provide students with direct interaction within deaf community. (Formerly numbered Communicative Disorders 450.)

357. Fieldwork with the Deaf (1-2) Cr/NC I, II

Two hours of activity per unit of credit and one hour of staffing.

Prerequisite: Credit or concurrent registration in Communicative Disorders 106. Recommended: Communicative Disorders 205.

Field observation and participation under supervision in school settings with small groups of hearing impaired youngsters. Maximum credit three units.

396W. Writing in Health and Human Services (3) II

Prerequisites: An introductory level course from one department or school within the College of Health and Human Services. Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Theory and practice of clinical writing, including reports, individual educational and therapeutic plans, communication samples, and educational ethnography.

459. Fingerspelling (1) I

Prerequisite: Communicative Disorders 159.

Instruction and practice in proper formation, positioning, rhythm, and pace associated with fingerspelling.

496. Topics in Communicative Disorders (1-3) I, II

Study of some problem in communicative disorders. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

500. Language Structure (3)

Prerequisites: Communicative Disorders 106 and 320; Linguistics 101 or 420.

Design features of language as they relate to communication behavior. Focus on role of language structure in disordered communication.

501. Voice Disorders: Children (3)

Two lectures and three hours of laboratory.

Prerequisite: Communicative Disorders 321.

Theory and practice in the remediation of voice disorders. Laboratory involves measurements of vocal dimensions and perceptual training for diagnosis and remediation of voice disorders.

505. Remediation for Fluency Disorders in School-Aged Children (3)

Prerequisite: Communicative Disorders 322.

Theoretical and phenomenological understanding of stuttering as a communicative disorder; explanations for learning of dysfluent

behaviors; applied techniques in rehabilitation for school-aged children with dysfluent speech. (Formerly numbered Communicative Disorders 422.)

511. Pediatric Aural Rehabilitation (3)

Prerequisites: Communicative Disorders 320 and 340. Recommended: Communicative Disorders 357, 500 and 513.

Theoretical, methodological, and technical issues related to facilitating receptive and expressive communication in individuals who are deaf or hard-of-hearing. Emphasizes multidisciplinary case management of children.

512. Articulation Disorders and Methods (3)

Prerequisites: Communicative Disorders 320, 321, and 340.

Significant theories and research in prevention and remediation of articulatory disorders. Includes emphases on speech habilitation of hearing impaired, cognitive and motor processing.

513. Language Disorders and Methods (3) I, II

Prerequisites: Communicative Disorders 320, 321, 340, 500.

Theories and research in language acquisition and language disorders. Assessment of, and intervention with, language impaired children, including hearing impaired individuals.

517. Diagnostic Methods in Speech-Language Pathology (3)

Prerequisites: Grade of C or better in Communicative Disorders 512, 513.

Principles and procedures in assessing communication disorders in children and adults. Includes case histories, testing, materials, interviewing, clinical reporting and practice with selected assessment tools. Twelve hours of observation of diagnostic practicum required.

521. Screening Evaluations in Speech-Language Pathology (1)

Three hours of laboratory screening per week.

Prerequisites: Communicative Disorders 501, 505, and 517.

Screening evaluations of speech and language of children and adults.

525. Introductory Clinical Practice (1)

Eight hours of orientation; thereafter two hours of practicum and one hour of staffing per week.

Prerequisites: Grade point average of 2.75 or better in Communicative Disorders 320, 321, 340, 500, 512, 513.

Orientation to the clinic, supervised observation, and practicum with representative speech and language problems.

526. Clinical Practice in Speech-Language Pathology (1-2) I, II, S

Two hours of practicum and one hour of staffing.

Prerequisites: Consent of department; Communicative Disorders 110; and grade of C or better in Communicative Disorders 512, 513, 517 and 525. Communicative Disorders 513 not required of audiology students.

Supervised practice with representative speech and language problems. Up to two units may be taken concurrently; maximum credit two units. One unit represents 26 hours of direct clinical practice. Qualified transfer students must enroll in at least one unit of 526 prior to 626.

539. Neuropathologies of Speech, Hearing and Language (3)

Prerequisites: Communicative Disorders 321 and 340.

Research and theory concerning the nature, etiologies and principles of treatment of disorders of speech, hearing and language resulting from pathologies of the nervous system.

540. Hearing Conservation and Audiometry for School Nurses (3)

Prerequisite: Registered nurse.

Builds on registered nurse's knowledge of anatomy, physiology and medical-surgical treatment of disease as it relates to auditory mechanism. Designed to give background in hearing screening (pure

tone and impedance) and awareness of ramifications of hearing loss in children necessary for referral and follow-up. Fulfills three-unit requirement for the School Nurse Credential and may be used toward the six-unit State Audiometric Certificate requirement. Not open to students with credit in Communicative Disorders 205, 340, 341.

541. Hearing Screening of Children (1) Cr/NC I, II

Three hours of laboratory screening per week.

Prerequisites: Communicative Disorders 340 and 340L.

Field experiences in audiometric and impedance screening of children to obtain contact hours in screening required by American Speech-Language-Hearing Association, California License, and Clinical-Rehabilitative Services credential. (Formerly numbered Communicative Disorders 341.)

542. Audiometry: Application (3)

Prerequisite: Communicative Disorders 340L.

Pure tone and speech audiometry; masking; impedance audiometry; tests for nonorganic and for sensorineural hearing loss; reporting test results; audiometer calibration.

545. Clinical Practice in Audiologic Assessment (1-3) I, II, S

Three hours of laboratory.

Prerequisite: Grade of C or better in Communicative Disorders 542.

Supervised practicum with pure tone, speech, immittance, and special audiologic testing. One unit represents two hours of clinical contact and one hour of staffing per week. Maximum credit three units.

546. Clinical Practice with Aural Rehabilitation (1) I, II, S

Three hours of laboratory.

Prerequisites: Grade of C or better in Communicative Disorders 511, 512, 513, and a minimum of two units in Communicative Disorders 525, 526, and/or 545.

Supervised practicum in aural rehabilitation. One unit represents two hours of clinical contact and one hour of staffing per week.

550. Education of Deaf Children and Youth (3) II

Prerequisite: Communicative Disorders 350.

Educational programs, services and resources for hearing impaired; historical background, philosophy, sociological and psychological problems.

556. Clinical Practice with the Deaf (1) I, II, S

Three hours of laboratory.

Prerequisites: Communicative Disorders 159, 357; credit in two of the following and concurrent registration in the third: Communicative Disorders 511, 513, 562. Admission to clinical practicum includes successful completion of competency examination.

Supervised therapy with representative problems found in the hearing impaired population. Maximum one unit first semester; maximum credit two units.

562. Oral Communication for Deaf and Hard-of-Hearing Children (3)

Prerequisite: Communicative Disorders 550.

Current methods for developing oral/aural communication skills with hearing-impaired children and youth. Differential problems of acquisition of communicative competence. Assessment and intervention procedures for classroom and clinical settings.

568. Multicultural Perspectives in Communication with Deaf Individuals (3)

Prerequisite: Demonstrate intermediate competence in American Sign Language, spoken Spanish or spoken Mandarin.

Review and analysis of research in multicultural lifespan communication processes in deaf individuals. Emphasis on communication needs in health care, public school, and informal social settings.

580. Communication Problems of the Aging (3)

Prerequisites: Twelve upper division units in an appropriate major.

Normal communication processes and aging, including memory and cognition for speech and language, and physiological changes; speech and language pathologies; hearing problems and rehabilitation, including hearing aids, psychosocial aspects of communication, including family dynamics; and resources available within the community. Open to majors and nonmajors.

596. Selected Topics in Communicative Disorders and Science (1-4) I, II, S

Prerequisite: Twelve units in communicative disorders and science courses.

Specialized study of selected topics from the area of speech-language pathology, audiology, education of the hearing impaired, and speech and hearing science. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596. Maximum credit of three units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Community Health Education

In the College of Health and Human Services

OFFICE: Hardy Tower 119

TELEPHONE: (619) 594-6317

Faculty

Emeritus: Barnes, Burgess, Fellers, Harper, Kessler, Kitzinger, McTaggart, Sorochan

Professor: Senn

Associate Professors: Boskin, Noto

Offered by the Graduate School of Public Health

Major in health science with the B.S. degree in applied arts and sciences.

Emphasis in community health education.

Minor in health science.

The Major

Health education is becoming increasingly accepted as the most humane and economical means to good health. Despite the vast array of preventive, therapeutic, and rehabilitative facilities developed by medical science, human health continues to depend largely on translating knowledge into individual behaviors and lifestyles. Education designed to encourage appropriate health behaviors can effectively prevent much suffering and disability. The major purpose of the health science profession is to initiate educational programs which will develop health-positive behaviors in individuals and families.

The health science major is designed to contribute to the personal health and growth of students and to prepare them for entry level positions in health agencies. An emphasis in community health education is available. Preparatory coursework for this interdisciplinary major includes courses in community health education, family studies and consumer sciences, psychology, sociology, speech communication, zoology, chemistry, microbiology, and mathematics. The upper division curriculum requires 48 units from community health education, biology, educational technology, and social work.

Although career opportunities in community health education are variable from year to year and place to place, the long-range predictions of demand for health education professionals are favorable. Types of positions available to community health education graduates include positions in governmental agencies, voluntary health agencies, hospitals, and schools.

Health professionals in any of these settings might be involved in such projects as educating the community about current health issues and the latest advances in the medical field.

International health work opportunities are available in the Peace Corps, Project Concern, and other humanitarian organizations.

Positions might also be available with various health related organizations as public information officers.

Career opportunities in the health science profession are particularly good for minority, bilingual, and bicultural persons.

Health Science Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 12011)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Emphasis in Community Health Education

Preparation for the Major. Community Health Education 101, 290, 292; Biology 150, 210*; Chemistry 100 (or Chemistry 130 for students with previous work in chemistry); Family Studies and Consumer Sciences 107; Psychology 101, 270; Sociology 101; Speech Communication 103. (36 units)

Upper Division Writing Requirement. Passing the University Writing Examination or Rhetoric and Writing 305W or 503W with a grade of C (2.0) or better.

Major. A minimum of 39 upper division units to include Community Health Education 401, 402, 406, 490, 497 (six units), 560; Biology 336; Educational Technology 532; and twelve units of electives in community health education (Social Work 350 may be substituted for one of the electives).

* Prerequisites waived for students in this major.

Health Science Minor

The minor in health science consists of a minimum of 15 selected from Community Health Education 101, 290, 401*, 470, 561.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

* Additional prerequisites required.

Courses

LOWER DIVISION COURSES

101. Health and Life Style (3) I, II

Major variables in human health experience with attention to personal health assessment and application of health knowledge to health behavior. Not open to students with credit in Community Health Education 301. (Formerly numbered Health Science 101.)

290. Health Education as a Profession (3) I

Prerequisite: Community Health Education 101 or 301. Health education and its role in the health system. For students with professional interests in health education. (Formerly numbered Health Science 290.)

292. Community Health (3) I

Community health problems; role of the citizen, the public, and community health agencies in promoting and protecting the health of the community. (Formerly numbered Health Science 292.)

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

301. Concepts of Health Education (3) II

Development and application of concepts in individual, family, community health and behavior change. Not open to students with credit in Community Health Education 101. (Formerly numbered Health Science 301.)

320. Health Education for Teachers (3) II (Offered only in Extension)

Required for professional multiple or single subject clear credential teaching applicants. Covers all topics designated in California framework including nutrition, substance abuse, CPR, and child abuse. (Formerly numbered Health Science 320.)

331. Crisis Management (3) II

Physical and psychological crisis situations, various procedures and techniques in immediate management and follow-up referrals. (Formerly numbered Health Science 331.)

345. Safety and Accident Prevention (3)

Prerequisite: Community Health Education 292. Causes and incidence of accidents with emphasis on role of education, prevention, and injury control. (Formerly numbered Health Science 345.)

350. Environmental Health Education (3)

Environmental hazards of living and working in this modern technological world, including air, noise, land, food, and water pollution. (Formerly numbered Health Science 350.)

353. Sexually Transmitted Diseases (3) I

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Evolution and occurrence of sexually transmitted diseases worldwide, focusing on biological, medical, psychological, sociocultural, and political factors. (Formerly numbered Health Science 353.)

362. International Health (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Population dynamics, vital statistics, global disease patterns, and analysis of variations among nations and cultures with respect to health problems and health care services. (Formerly numbered Health Science 362.)

401. Change Process in the Community (3) I

Prerequisites: Community Health Education 290, Psychology 101, Sociology 101, and declared health science majors or minors.

Attitude formation, behavior change, decision making, perception, motivation, group behavior, etc., and their relationship to the practice of health and human services. (Formerly numbered Health Science 401.)

402. Communications in Health Education (3) II

Prerequisites: Community Health Education 290, Speech Communication 103.

Development and production of health presentations for group and individual levels; including written, oral, and graphic methods. (Formerly numbered Health Science 402.)

406. Health Education Methodology (3) I

Prerequisite: Community Health Education 401. Strategies, techniques, and materials for planning and conducting health education. Applications of learning theory in the development and use of educational methodologies in health education. (Formerly numbered Health Science 406.)

470. Communicable and Noncommunicable Diseases (3) I, II

Causes, prevention and control of communicable, degenerative and chronic health disorders. (Formerly numbered Health Science 470.)

475. Human Sexuality (3) II

Examination of the development of sexual values, attitudes, and behavior from infancy to old age. (Formerly numbered Health Science 475.)

490. Measurement and Evaluation in Health Education (3) II

Prerequisites: Psychology 270; satisfactory completion of the Entry-Level Mathematics requirement and the SDSU Mathematics Competency requirement. **Proof of completion of prerequisites required:** Copy of ELM or placement scores or verification of exemption; proof of Cr in General Mathematics Studies 90A or 90B or notification from General Mathematics Studies; copy of transcript.

Measurement in health education; data gathering techniques; organization; presentation and interpretation of data; computer utilization; basic principles of health education programs. (Formerly numbered Health Science 490.)

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

497. Supervised Field Experience (1-6) Cr/NC I, II

Prerequisites: Senior standing in Community Health Education emphasis; Community Health Education 401, 402, and 406.

Supervised practical experience in local health agencies and/or schools. Maximum credit six units. (Formerly numbered Health Science 497.)

499. Special Study (1-3) I, II, S

Prerequisite: Consent of special study adviser. Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

560. Introduction to Public Health (3) I

Prerequisite: Community Health Education 290.

Epidemiological methods, behavioral and biological determinants, modes of transmission, risk factors, prevention of common infectious and chronic disease. Evaluation of health information to develop health education programs. (Formerly numbered Health Science 560.)

561. Health and Medical Care (3) II

Prerequisite: Senior or graduate standing with a major or minor in health education or a closely related area.

Health values, concepts, and attitudes; health products and facilities; hospital care and hospitalization plans; governmental health controls; economic and cultural influences on health and medical care; professional contributions, relationships, and careers; national and international health programs. (Formerly numbered Health Science 561.)

574. Habit-Forming Substances (3) I

Tobacco, alcohol, and other drugs; their use, misuse and abuse. (Formerly numbered Health Science 574.)

596. Workshop in Health Education (1-3)

Selected problems in health science are used as a basis for workshop experiences. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596; maximum credit of three units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES Refer to the Graduate Bulletin.

Comparative Literature

In the College of Arts and Letters

OFFICE: Adams Humanities 4158
TELEPHONE: (619) 594-5327

Faculty

Faculty assigned to teach courses in comparative literature are drawn from departments in the College of Arts and Letters.

Offered by the Department of English and Comparative Literature

Major in comparative literature with the B.A. degree in liberal arts and sciences.

Teaching major in comparative literature for single subject teaching credential in English.

Minor in comparative literature.

The Major

Comparative literature is the study of literature from around the world, transcending the restrictions of national and linguistic boundaries. Traditionally, comparative study has been based on literary movements, periods and lines of influence, as well as on genres, themes, myths, and legends. In recent years comparative literature has come to include the comparison of literature with other areas of human experience.

Comparative literature offers students the opportunity to study an extremely broad range of literary subjects from various cultures throughout the world. Courses are offered in European literature from ancient to contemporary times; in the literature of Asia, Africa, and Latin America; in folk literature, legend, fantasy, and science fiction; in literary theory; and in special topics such as travel literature, literature and existentialism, Japanese literature and film, and rock poetry. All reading is done in English translation (majors choosing Plan II, however, are also required to take courses in foreign language literature).

Because the field covers so wide a range, the comparative literature student does not acquire a comprehensive knowledge of any basic list of "great works." Such a list, for all of world literature, would be far too long. Instead, students learn various approaches to literature, along with specialized knowledge of areas which particularly interest them.

Comparative literature is an excellent major for anyone desiring a broadening and enriching liberal arts education. Its application to foreign cultures is particularly useful for careers in foreign service and international trade. Translating, editing and publishing, journalism, broadcasting, and film are other possibilities, as well as advertising and public relations, politics, writing, library work, and criticism. Comparative literature is also, like English, an excellent foundation for careers in the professions, especially law.

The comparative literature major may also be used as preparation for the single subject (high school) teaching credential in English. Graduate study in comparative literature may lead to teaching at more advanced levels. The Plan II major has been specifically designed for students who plan to do graduate work in this area.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.



Comparative Literature Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15031)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in comparative literature and English courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Comparative Literature 210, 270A, 270B. (9 units)

Foreign Language Requirement. Plan I: Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Plan II: See below.

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W, 581W, 584W or Rhetoric and Writing 500W with a grade of C (2.0) or better.

Major. Plan I: General literature. For students who do not intend to enter a graduate program in comparative literature. This program is suitable as a teaching major for students pursuing the single subject teaching credential in English.

Required: A minimum of 33 upper division units to include 18 units in one of the three areas (A, B, and C) below; nine units in American literature, British literature, or creative writing; and an additional six units in comparative literature.

Plan II: For students who intend to enter a graduate program in comparative literature.

Required: A minimum of 33 upper division units to include 18 units in one of the three areas (A, B, and C) below; Comparative Literature 582; six units in a foreign language literature (read in the original language); and six units in another literature (which may be English or American) read in the original language. It is strongly recommended that even those students choosing English or American as their second literature attain competency in a second foreign language.

A. European Literature. Eighteen units selected from the following:

1. Comparative Literature 511, 512, 513, 514.
2. Up to six units in other, variable-content comparative literature courses with appropriate content approved by the departmental adviser.
3. Up to six units from Art 371, 557, 558, 559, 573A, 573B, 574, 575; Classics 310, 320, 330; History 407A, 407B, 440, 503A, 503B, 506, 507, 509, 510, 511A, 511B, 512A, 512B, 526, 528; Humanities 401, 402, 403, 404; Music 351A, 351B, 351C; Philosophy 412, 413, 414, 506, 508; Political Science 301A, 301B, 302; and Religious Studies 318.

B. Asian, African, and Latin American Literature. Eighteen units selected from the following:

1. Comparative Literature 440, 445, 455, 460, 530.
2. Up to six units in other, variable-content comparative literature courses with appropriate content approved by the departmental adviser.
3. Up to six units from Anthropology 442, 449; Art 562; Asian Studies 458, 459, 596 (with appropriate content approved by the departmental adviser); History 415A, 415B, 420, 421, 473A, 473B, 475A, 475B, 555, 556, 557, 558, 561A, 561B, 565; Humanities 450, 460; Music 351E, 351F; and Religious Studies 340, 401, 403.

C. Comparative Literary Theory (Theory of literature, genre study, literature in relation to other arts and disciplines).

Eighteen units selected from the following:

1. Comparative Literature 561, 562, 563, 580, 582, 594, 595.
Note: Students following Plan I must include Comparative Literature 582 under area C. For Plan II students, this course is required separately and will not be counted among the 18 units under area C.
2. Up to six units in other, variable-content comparative literature courses with appropriate content approved by the departmental adviser.
3. Up to six units from Drama 460A, 460B; English 493, 507 (strongly recommended), 570, 571, 573; Music 592; Philosophy 334, 541, 542; Religious Studies 360; and Women's Studies 352, 553.

Comparative Literature Major

For the Single Subject Teaching Credential in English
With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15031)

Those who have declared majors prior to January 1, 1995, and have taken any of the courses listed below may follow this program providing they complete it by December 31, 1997. All others must be advised by the department under a new program for the single subject credential.

For a description of the single subject teaching credential in English with a major in comparative literature, refer to this section of the catalog under English. For students completing the single subject teaching credential program, no more than 48 units in English and comparative literature courses can apply to the degree.

Comparative Literature Minor

The minor in comparative literature consists of a minimum of 15 units in comparative literature, 12 units of which must be in upper division courses. The 12 units of upper division work must be selected, with adviser's approval, from within one of the following interest areas:

European Literature: Comparative Literature 511, 512, 513, 514.

Asian, African, and Latin American Literature: Comparative Literature 440, 445, 455, 460, 530.

Comparative Literary Theory (Theory of literature, genre study, literature in relation to other arts and disciplines): Comparative Literature 561, 562, 563, 580, 582, 594, 595.

In addition the following variable content courses may be used in any of the above categories when they are appropriate: Comparative Literature 490, 571, 577, 596.

The comparative literature minor is not available to students majoring in English.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

210. Introduction to Comparative Literature (3) Cr/NC

Introductory study of comparative literature, its current status, its historical development, range of comparative approaches. Generally includes guest presentations by various members of the comparative literature faculty.

270A-270B. World Literature (3-3) I, II

Comparative study of selected major works from various continents and cultures, with emphasis on the way literature deals with enduring human problems and values. Semester I: prior to 1500; Semester II: since 1500. Comparative Literature 270A is not a prerequisite to 270B, and either may be taken separately.

296. Topics in Comparative Literature (3)

An introduction to the subject matter of comparative studies in literature. Focus on a specific movement, theme, figure, genre, etc. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

UPPER DIVISION COURSES (Intended for Undergraduates)

405. The Bible as Literature (3) I, II

Same course as English 405.
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.
Prose and poetry of the King James version.

440. African Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Comparative study of African literature as well as Black literature of North and South America and the Caribbean; intercontinental influences and the theme of Black identity.

445. Modern Latin American Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Reading selections from major Latin American authors.

455. Classical Asian Literature (3)

Prerequisites: Comparative Literature 270A or 270B or English 220; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Survey of one or more Asian literatures from the classical period of China, Japan, India, Korea, and others.

460. Modern Asian Literature (3)

Prerequisites: Comparative Literature 270A or 270B or English 220; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Survey of one or more Asian literatures from the modern period of China, Japan, India, Korea, the Philippines, Vietnam, and others.

470. Folk Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Studies in the ballad, bardic poetry, oral and popular literature and folklore.

490. Literary Movements (3)

A movement or theme in world literature—such as symbolism, existentialism, revolution, or romantic love. See Class Schedule for specific content.

499. Special Study (1-3) Cr/NC I, II

Prerequisites: Consent of instructor and approval of department chair.

Individual study. Maximum credit six units.

**UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)**

Prerequisite for all 500-level courses: Six units in literature or three units in literature and three units in a related area appropriate to the course in question.

511. Continental Renaissance (3)

Representative selections from authors of the Renaissance period in continental Europe.

512. Seventeenth and Eighteenth Century European Literature (3)

Selected works by European writers prior to 1800.

513. Nineteenth Century European Literature (3)

Selected works by European writers between 1800 and 1900.

514. Modern European Literature (3)

Selected works by European writers of the twentieth century.

530. Topics in Asian Literature (3)

Specialized study of a selected topic in Asian literature. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

561. Fiction (3)

A comparative approach to themes and forms in fiction (novel and short story). Focus of course to be set by instructor. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

562. Drama (3)

Forms and themes in drama. Focus of course to be set by instructor. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

563. Poetry (3)

A comparative approach to themes and forms in poetry. Focus of course to be set by instructor. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

571. Literary Use of Legend (3)

Literary treatment of such legendary figures as Don Juan, Faust, and Ulysses, in a wide range of literature and genres. See Class Schedule for specific content.

577. Major Individual Authors (3)

In-depth study of the works of a major author, such as Sophocles, Dante, Cervantes, Goethe, Dostoyevsky or Proust. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

580. Concepts in Comparative Studies (3)

Basic concepts in comparative studies in literature (e.g., influence, movement, figure, genre, etc.); their validity, usefulness and limitations. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

582. Contemporary Literary Theory (3)

Prerequisite: Six upper division units in literature.

Comparative study of literary theory since Russian formalism and Anglo-American "New Criticism." Emphasis on current developments in Europe and North America.

594. Topics in Literature and the Arts (3)

Prerequisite: Six upper division units in literature or any of the other arts.

Comparative study of literature and other arts such as painting, sculpture, architecture, music, dance, and film. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units applicable to the M.F.A. degree in creative writing.

595. Literature and Aesthetics (3)

Prerequisite: Six upper division units in literature or any of the other arts.

Theoretical and experiential investigation of relationships between literature and the other arts; literary works in context of an inquiry into aesthetics.

596. Topics in Comparative Literature (3)

An intensive study of a topic to be selected by the instructor. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

OFFICE: Business Administration/Mathematics 203

TELEPHONE: (619) 594-6191

The B.S. degree in Computer Science is accredited by the Computer Science Accreditation Commission of the Computing Sciences Accreditation Board.

Faculty

Chair: Elwin

Coordinator for Computer Science: Beck

Professors: Anantha, Baase, Beck, Carroll, Donald, Marovac, Swinarski, Tarokh, Vuskovic

Associate Professors: Eckberg, Stewart, Vinge, Whitney

Lecturer: Root

Offered by the Department of Mathematical Sciences

Master of Science degree in computer science.

Major in computer science with the B.S. degree in applied arts and sciences.

Minor in computer science.

The Major

Computer Science is the study of computers and their applications. It is concerned with methods for storing and retrieving information; with the design and use of languages for writing computer programs; with the hardware systems that interpret such languages, and with the theoretical principles that form the foundations of computing. Computer Science includes a wide variety of specialties and application areas such as artificial intelligence, robotics, graphics, systems programming, simulation, and computer networks.

The Bachelor of Science in Computer Science is designed to provide students with a fundamental understanding of modern computing methodology and programming practices along with a complementary knowledge of hardware. The first two years provide the basic preparation in programming, data structures and architecture. The final two years are devoted to more advanced fundamentals and specialized electives.

Computers are used to store and manage information, to analyze scientific data, and in a wide variety of other applications. Computing technology is found in an almost limitless number of settings, ranging from automobiles to household appliances to toys. Because of this, a wide range of jobs are open to people trained in Computer Science. Employment opportunities are expected to remain very strong.

Computer Science Major

With the B.S. Degree in Applied Arts and Sciences

(Major Code: 07011)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required for this major.

Preparation for the Major. Computer Science 107, 108, 237; Mathematics 150, 151, 245, 250, 254; Physics 195, 195L, 196, 196L, or Chemistry 200, 201, or Biology 201, 202; and two additional science courses selected with approval of a computer science adviser. These should be courses for sciences or engineering majors or have a strong emphasis on quantitative methods. (41-43 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 37 upper division units to include Computer Science 310, 320, 370, 440, 490, 530, 560, 570; at least one course selected from Mathematics 541, 550, 551A, or 579; and 12 units of

Computer Science

In the College of Sciences

electives selected with the approval of a computer science major adviser. The student must complete an outline for the major and file a copy signed by a major adviser with the Office of Admissions and Records.

Computer Science Minor

The minor in computer science consists of a minimum of 18-24 units in computer science and mathematics to include Computer Science 107, 108; and at least 12 upper division units, or at least nine upper division units if the student completes a full calculus sequence, i.e., Mathematics 121 and 122, or 150 and 151. The courses selected are subject to the approval of the minor adviser.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

106. Introduction to Computer Programming with FORTRAN (3) I, II (CAN CSCI 4)

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement. **Proof of completion of prerequisite required:** Copy of ELM score or verification of exemption; copy of Placement Examination score; copy of transcript.

Introduction to problem solving on a computer, design of algorithms, and use of FORTRAN language. Extensive programming.

107. Introduction to Computer Programming (3) I, II, S

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement. **Proof of completion of prerequisite required:** Copy of ELM score or verification of exemption; copy of Placement Examination score; copy of transcript.

Programming methodology and problem solving. Basic concepts of computer systems, algorithm design and development, data types, program structures. Extensive programming in Pascal.

108. Intermediate Computer Programming (3) I, II, S

Prerequisites: Qualification on the Mathematics Departmental Placement Examination, Part IA; and Computer Science 107. **Proof of completion of prerequisites required:** Copy of ELM score or verification of exemption; copy of Placement Examination score; copy of transcript.

Further training in program design and development. Introduction to data structures: stacks, queues, linear lists, trees, sets. Pointers and recursion. Implementation and analysis of sorting and searching algorithms. Extensive programming in Pascal.

205. Introduction to Computational Analysis (3)

Prerequisite: Mathematics 151.

Introduction to computational analysis by examining models from chemistry, biology, and physics. Students will gain competence in floating point computations and the behavior of error.

220. UNIX and the C Programming Language (3) I, II

Prerequisite: Computer Science 108.

Introduction to the UNIX operating system; shell programming, major system services and utilities. The C language: its features and their significance in the UNIX programming environment.

237. Machine Organization and Assembly Language (3) I, II

Prerequisite: Computer Science 108. **Proof of completion of prerequisite required:** Copy of ELM score or verification of exemption; copy of Placement Examination score; copy of transcript.

General concept of machine and assembly language, including data representation, looping and addressing techniques, subroutine linkage, macros, interrupts, and traps.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

299. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Intended for Undergraduates)

310. Data Structures (3) I, II, S

Prerequisites: Computer Science 108 and Mathematics 245.

Representation of and operations on basic data structures. Arrays, linked lists, stacks, queues, orthogonal lists, trees; recursion; hash tables; dynamic storage management and garbage collection.

320. Programming Languages (3) I, II

Prerequisite: Computer Science 108.

Principles of high-level programming languages, including formal techniques for syntax specification and implementation issues. Language concepts studied through at least two imperative languages (one static and one block structured) and at least one applicative language.

370. Computer Architecture (3) I, II

Prerequisite: Computer Science 237.

Communication between the components of a computer. Microprogramming. Programming with coroutines, traps, and interrupts. Characteristics of I/O devices and media. I/O programming.

420. Ada and Programming Methodologies (3)

Prerequisite: Computer Science 310.

Introduction to programming in Ada. Advanced concepts and features present in a variety of modern programming languages and programming methodologies as applied in Ada.

440. Social, Legal, and Ethical Issues in Computing (3)

Prerequisite: Computer Science 108.

Impact of computers, applications, and benefits, copyright, privacy, computer crime, constitutional issues, risks of computer failures, evaluating reliability of computer models, trade and communications in the global village, computers in the workplace, responsibilities of the computer professional.

470. UNIX System Administration (3)

Prerequisite: Computer Science 220.

Installing the UNIX operating system on a UNIX workstation, adding user accounts, backing up and restoring user files, installing windows, adding network capabilities, adding printers and other peripherals.

490. Senior Seminar (1)

Prerequisite: Fifteen units of upper division computer science courses.

Preparation and delivery of oral presentations on advanced topics in computer science. General principles of organization and style appropriate for presenting such material.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

498. Directed Readings in Computer Science Literature (1)

Prerequisite: Credit or concurrent registration in the upper division computer science course in which readings are to be undertaken.

Individually directed readings in computer science literature. May be repeated for a maximum of three units, taken each time from a different instructor.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

514. Database Theory and Implementation (3)

Prerequisites: Computer Science 310 and Mathematics 245.

Database systems architecture. Storage structures and access techniques. Relational model, relational algebra and calculus, normalization of relations, hierarchical and network models. Current database systems.

520. Advanced Programming Languages (3)

Prerequisites: Computer Science 237, 310, and 320.

Object oriented programming, concurrent programming, logic programming. Implementation issues.

524. Compiler Construction (3)

Prerequisites: Computer Science 237, 310, and 320.

Syntactical specification of languages. Scanners and parsers. Precedence grammars. Run-time storage organization. Code generation and optimization.

530. Systems Programming (3) I, II

Prerequisites: Computer Science 237 and 310.

Design and implementation of systems software. Relationship between software design and machine architecture. Topics from assemblers, loaders and linkers, macro processors, compilers, debuggers, editors. Introduction to software engineering. Large project required. Not acceptable for the M.S. degree in computer science.

532. Software Engineering (3)

Prerequisites: Computer Science 310 and 320.

Theory and methodology of programming complex computer software. Analysis, design, and implementation of programs. Team projects required.

550. Artificial Intelligence (3)

Prerequisites: Computer Science 108 and either Mathematics 245 or 523.

Heuristic approaches to problem solving. Systematic methods of search of the problem state space. Theorem proving by machine. Resolution principle and its applications.

551. User Interface Environments (3)

Prerequisites: Computer Science 310 and 320.

Design of user-machine interfaces in interactive systems. Problems faced by user of an interactive system; basic issues and principles involved in design and implementation of good and friendly user-machine graphical interfaces.

552. Advanced Artificial Intelligence (3)

Prerequisites: Computer Science 310, 320, and 550.

Presentation of logic based programming languages and their usefulness in artificial intelligence, including areas such as expert systems and natural language translation. Implementation and use of chaining, recursion, lists. Substantial programming practice.

553. Neural Networks (3)

Prerequisites: Computer Science 320 and Mathematics 254.

Principles of neural networks, their theory and applications.

555. Raster Computer Graphics (3)

Prerequisite: Computer Science 551.

Bit map graphics, algorithms to connect between different formats and enhancement of pictures.

556. Robotics: Mathematics, Programming, and Control (3)

Prerequisites: Computer Science 320, Mathematics 254, knowledge of the C programming language.

Robotic systems including manipulators, actuators, sensors, and controllers. Algebraic methods for spatial description of solid objects, manipulator kinematics and control. Robot programming languages and robot programming systems.

557. Computer Control Systems (3)

Prerequisites: Computer Science 310 and Mathematics 254.

Analysis and programming of real-time computer control systems, implementation of digital controllers including programming, intelligent control systems and fuzzy control.

558. Computer Simulation (3)

Prerequisites: Computer Science 310 and Mathematics 550.

Methodology of simulation for discrete and continuous dynamic systems. State-of-the-art programming techniques and languages. Statistical aspects of simulation. Students will design, program, execute, and document a simulation of their choice.

559. Computer Vision (3)

Prerequisites: Computer Science 310 and Mathematics 254.

Algorithms and computer methods for processing of images. Visual perception as a computational problem, image formation, characterization of images; feature extraction, regional and edge detection, computer architectures for machine vision.

560. Algorithms and Their Analysis (3) I, II

Prerequisites: Computer Science 310 and Mathematics 245.

Algorithms for solving frequently occurring problems. Analysis techniques, lower bounds. Sorting, merging, graph problems (shortest paths, depth-first and breadth-first search), and others. NP-complete problems. Not acceptable for the M.S. degree in Computer Science.

562. Automata Theory (3)

Prerequisite: Mathematics 245 or 521A.

Definition of finite automata. Classification of finite automaton definable languages. Minimization of finite automata. Nondeterministic finite automata. Sequential machines with output. Regular sets and expressions. Introduction to grammars.

564. Introduction to Computability (3)

Prerequisite: Mathematics 245 or 523.

Definition of algorithm by abstract (Turing) machines. Universal Turing machines. Primitive recursive and recursive functions. The equivalence of the computational power of Turing machines and recursive functions. Limitations and capabilities of computing machines; the halting problem.

566. Queuing Theory (3)

Prerequisites: Computer Science 108 and Mathematics 550.

Performance prediction of computer networks and other systems (e.g., inventory control, customer service lines) via queuing theory techniques. Operational analysis.

570. Operating Systems (3) I, II

Prerequisites: Computer Science 310, 370, and knowledge of the C programming language.

File systems, processes, CPU scheduling, concurrent programming, memory management, protection. Relationship between the operating system and underlying architecture.

572. Microprocessor Architecture (3)

Prerequisites: Computer Science 370 and knowledge of the C programming language.

Architecture of state-of-the-art microprocessor. Internal pipeline, internal cache, external cache, and memory management. Programming a uniprocessor. Communication among computers in a distributed environment. Architecture and programming of a multiprocessor system.

574. Computer Security (3)

Prerequisites: Computer Science 310; Mathematics 245, 550; and credit or concurrent registration in Computer Science 570.

Principles of computer security and application of principles to operating systems, database systems, and computer networks. Topics include encryption techniques, access controls, and information flow controls.

575. Supercomputing for the Sciences (3)

Prerequisite: Extensive programming background in Fortran or C.

Interdisciplinary course, intended for all science and engineering majors. Advanced computing techniques developed for supercomputers. Overview of architecture, software tools, scientific computing and communications. Hands-on experience with CRAY.

576. Computer Networks and Distributed Systems (3)

Prerequisite: Credit or concurrent registration in Computer Science 570.

Local area networks and wide area networks; mechanisms for interprocess communication; rules for distribution of data and program functions.

596. Advanced Topics in Computer Science (1-4) I, II

Prerequisite: Consent of instructor.

Selected topics in computer science. May be repeated with the approval of the instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES Refer to the Graduate Bulletin.

For additional courses useful to computer scientists, see:

Mathematics 541.	Introduction to Numerical Analysis and Computing
Mathematics 542.	Introduction to Numerical Solutions of Differential Equations
Mathematics 561.	Applied Graph Theory
Mathematics 579.	Combinatorics

Counseling and School Psychology

In the College of Education

OFFICE: North Education 179
TELEPHONE: (619) 594-6109

Accredited by the California Commission on Teacher Credentialing and the National Association of School Psychologists.

Faculty

Emeritus: Bruce, Carnevale, Hawley, Howard, Malcolm, Manjos, Ramage
Chair: Robinson-Zafartu
Professors: Cook-Morales, Cummins, Feinberg, Miller, Senour
Associate Professors: Ingraham,
Robinson-Zafartu, Terry, Thompson, Velasquez
Assistant Professors: Brown-Cheatham, Grant-Henry

Offered by the Department

Master of Arts degree in education with a concentration in counseling.
Master of Science degree in counseling with specializations in:
Marriage, family and child counseling;
School counseling;
School psychology.
Pupil personnel:
School counseling credential.
School psychology credential.

Courses

UPPER DIVISION COURSES (Intended for Undergraduates)

- 310. Group Leadership in Educational Settings (3)**
Two lectures and two hours of activity.
Prerequisites: Anthropology 102 or Psychology 101 or Sociology 101; and completion of 60 units.
Identifying, classifying, and analyzing the components essential to the development of leadership in educational settings. Simulation activities assist students in acquisition of group leadership skills. Not applicable to a B.S. degree in Business Administration. (Formerly numbered Counselor Education 310.)
- 400. Counseling and the Helping Professions (3) I, II**
Serves as an introduction to the field of counseling and introduces the student to those professions considered to be helping professions. (Formerly numbered Counselor Education 400.)
- 401. Theories and Processes of Personal Integration (3) I, II**
Perspectives of and strategies for developing and maintaining a functional balance among intellectual, physical, emotional, and interpersonal aspects of daily living. (Formerly numbered Counselor Education 401.)
- 496. Experimental Topics (1-3)**
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degrees. (Formerly numbered Counselor Education 496.)

"Where there is no guidance, a people falls; but in an abundance of counselors there is safety."

Bible — Proverbs 11:14

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.
Individual study. Maximum credit six units. (Formerly numbered Counselor Education 499.)

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

585A. Human Sexuality for Counselors (3)

Prerequisite: Upper division course in human sexuality.
Dimensions of human sexuality that bear directly on role and function of helping professions. Human sexual development, sexual variations, sexual dysfunctions, intimate lifestyles, treatment modalities and sexual ethics. Fulfills MFCC licensure requirement. (Formerly numbered Counselor Education 585A.)

585B. Dynamics of Adjustment Behavior (3)

Prerequisite: Upper division course in abnormal psychology.
Philosophies and dynamics of adjustment behavior, patterns and types of abnormal behavior, and treatment modalities. Fulfills MFCC licensure requirement. (Formerly numbered Counselor Education 585B.)

596. Selected Studies (1-3)

Prerequisite: Consent of instructor.
A series of lecture and discussion sessions centering on current problems in counseling and guidance. Designed to serve the needs of any person desiring to keep informed of developments in this area. May be repeated with new content. See Class Schedule for specific content. Maximum credit of six units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree. (Formerly numbered and entitled Counselor Education 506, Guidance Conference, and 596.)

GRADUATE COURSES Refer to the Graduate Bulletin.

Criminal Justice Administration

In the College of Professional Studies and Fine Arts

OFFICE: Professional Studies and Fine Arts 105
TELEPHONE: (619) 594-6224

Faculty

Professors: Boostrom, Gitchoff, Henderson, Simon, Sutton

Offered by the School of Public Administration and Urban Studies

Major in criminal justice administration with the B.S. degree in applied arts and sciences.

The Major

The purpose of the criminal justice administration program is to provide current and future decision-makers in criminal justice with the foundation for critical and balanced as well as responsible and effective administrative responses. As the systems designed to deliver justice services are continually asked to accomplish more with fewer resources, the need for able and professional administrators becomes more and more pressing. The mission of the department is to provide graduates with the background and ability to meet this challenge.

Criminal justice administration majors with the B.S. degree have typically found employment at entry-level positions in local, state, and federal criminal justice agencies or in private business or security positions (e.g., loss prevention officer). At the local level, graduates can begin service in various capacities with police, sheriff's and marshal's offices, probation, county supervisors, city administration, and criminal justice planning agencies. At the state level, graduates may enter the Highway Patrol, Alcohol Beverage Control, Attorney General's Office, Department of Corrections, California Youth Authority, or related agencies. At the federal level, graduates are employed in agencies such as the FBI, Customs Service, Border Patrol, Secret Service, Drug Enforcement Agency, Naval Intelligence Service, Defense Investigative Services, CIA, and Department of Agriculture.

A significant number of graduates of this degree program also enter law school after graduation.

Criminal Justice Administration Major

With the B.S. Degree in Applied Arts and Sciences
(Premajor Code: 21050) (Major Code: 21051)

Applications will be accepted only during the months of August for the following spring semester and November for the fall semester. Change of major and declaration of major will be accepted only during specific filing periods. Please contact the School for deadlines.

All candidates for a degree in applied arts and sciences must complete the graduation requirements in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Criminal Justice Administration 200, Political Science 102, Sociology 101 and 150, and a three-unit course in elementary statistics (e.g., Sociology 201, Mathematics 250, Psychology 270). (15 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Public Administration 301; Criminal Justice Administration 301, 497 or 498,

540; six units (in addition to Public Administration 301) selected from all upper division Public Administration courses; and 18 additional upper division units selected with the approval of a department adviser. Within this program students may focus their study in areas such as law, law enforcement administration, court administration, correctional administration, juvenile justice administration, and deviance and social control. Interested students must seek guidance from a faculty adviser (may be any of the full-time faculty listed above) in selecting appropriate courses. A master plan for courses in the major must be approved by a faculty adviser and filed with the Office of Admissions and Records at least one semester before graduation. It is recommended that the student complete a preliminary master plan of courses as soon as possible after declaring the major.

IMPACTED PROGRAM. The criminal justice administration major is designated as an impacted program and specific regulations related to admissions are imposed. Consult the department for regulations and admissions criteria.

Courses

LOWER DIVISION COURSE

200. Introduction to Criminal Justice Administration (3) I, II (CAN AJ 2)

Survey of the structure, functions and problems of controlling criminal activity while preserving individual freedoms in a democratic society.

UPPER DIVISION COURSES (Intended for Undergraduates)

301. Social Control, Social Policy and Administration of Justice (3) I, II

Prerequisites: Criminal Justice Administration 200 with a grade of C or better and completion of all other lower division preparation for the major courses.

Interrelationship of social control, social policy and administration of criminal justice in contemporary American society.

305. Professions, Practices and Ethics in Criminal Justice Administration (3) I

Prerequisite: Criminal Justice Administration 301.
Professional roles and responsibilities of practitioners and administrators in criminal justice agencies, including consideration of the ethical responsibilities of criminal justice practitioners.

310. Law Enforcement Administration (3)

Administrative relationships within the criminal justice process with special reference to problems of courts and police and probation agencies.

320. The Administration of Criminal Law (3)

Prerequisite: Criminal Justice Administration 301.
Constitutional law principles as implemented in criminal courts with emphasis on critical analysis of factual situations and the argument of legal issues in criminal cases from both defense and prosecution perspectives.

321. Juvenile Justice Administration (3)

Prerequisite: Criminal Justice Administration 301.
Assessment of the structure and functions of agencies and institutions which comprise the juvenile justice system in America; evolution of policies and programs for prevention of delinquency and treatment of the juvenile offender.

330. Contemporary Correctional Administration (3)

Prerequisite: Criminal Justice Administration 301.
Contemporary policies and practices of local, state and federal correctional agencies, the influence of reform movements, and the interrelationship of corrections with other criminal justice system components.

333. Judicial Administration (3)

Prerequisites: Criminal Justice Administration 301 and Public Administration 301.

Review of significant developments at the state and federal levels, including court unification and financing, leadership, congestion, training, selection, tenure, discipline, removal and retirement of court-related personnel; and technological applications.

420. Constitutional Issues in the Administration of Justice (3)

Prerequisites: Criminal Justice Administration 200 and 301.
Constitutional legal theories and principles, especially the Fourth, Fifth, Sixth, and Eighth Amendments to the Constitution, as they affect criminal justice procedures and practices.

430. Prisons in Theory and Practice (3) Cr/NC (Offered only in Extension)

Two lectures and three hours of supervised activity.
Prerequisites: Criminal Justice Administration 200 and consent of instructor.

Design and operation of state and federal prisons in California from the perspective of staff and inmates. Onsite study and critique of facilities.

496. Selected Topics in Criminal Justice Administration (1-3)

Selected current topics in criminal justice administration. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units. (Formerly numbered Criminal Justice Administration 495.)

497. Investigation and Report (3) Cr/NC I, II

Prerequisites: Consent of instructor and senior standing.
Analysis of special topics.

498. Internship in Criminal Justice Administration (2-6) Cr/NC I, II

Prerequisites: Consent of instructor and senior standing.
Students are assigned to various government agencies and work under joint supervision of agency heads and the course instructor. Participation in staff and internship conferences.

499. Special Study (1-3) Cr/NC I, II

Prerequisites: Twelve units of upper division criminal justice administration and consent of instructor.
Individual study. Maximum credit six units.

**UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)****502. Juvenile Deviance and the Administration Process (3)**

Prerequisite: Criminal Justice Administration 321.
Problems of implementing and evaluating policies and programs for prevention of juvenile delinquency and treatment of juvenile offenders; an assessment of the proposed standards and goals for juvenile justice administration.

510. Contemporary Issues in Law Enforcement Administration (3)

Prerequisite: Criminal Justice Administration 310.
Assessment of problems confronting administrators of law enforcement agencies and of recent efforts to enhance the capability of agencies to control criminal activity while guarding individual liberties.

520. Prosecutorial Function in Administration of Justice (3)

Prerequisite: Criminal Justice Administration 301.
Analysis of prosecutor's function at local, state and federal levels and in selected foreign nations, including appraisal of proposed national standards and goals for prosecutors.

531. Probation and Parole (3)

Prerequisite: Criminal Justice Administration 330.
Basic concepts, history, legislation, and practices used in work with juveniles and adults who have been placed on probation or parole; criteria of selection, methods of supervision, and elements of case reporting.

540. Applied Planning, Research and Program Evaluation in Criminal Justice Administration (3) I, II

Prerequisite: Criminal Justice Administration 301.
Application of planning, research and program development and evaluation principles to the field of criminal justice.

543. Community Resources in Criminal Justice Administration (3)

Prerequisite: Criminal Justice Administration 301.
Exploration of present and probable roles of public and private agencies and volunteers in criminal justice administration.

**GRADUATE COURSES
Refer to the Graduate Bulletin.**

Dance

In the College of Professional Studies and Fine Arts

OFFICE: Music 111

TELEPHONE: (619) 594-6031

Faculty

Director: Chambers
Professor: Sandback
Associate Professors: Hempel, Nunn, Willis

Offered by the School of Music and Dance

Major in dance with the B.A. degree in liberal arts and sciences.
Minor in dance.

The Major

The dance program in the School of Music and Dance provides professional preparation for dance majors in choreography, performance, scholarship, and teaching; more specifically, as choreographers and dancers with professional companies, teachers in community and recreation programs, schools and colleges, movement educators, and candidates for graduate work in dance scholarship.

Philosophically, the program promotes dance as a communicative and expressive medium uniquely effective in the conveyance of meaning, emotion, and cultural values. Dance is a rigorous and specialized area of the performing arts, demanding a high level of physical preparation as well as a thorough understanding of aesthetics.

As members of the University Dance Company, students perform in faculty choreography and repertory works set by distinguished guest artists in periodic workshops and residencies. Each student also stages original work in a senior recital. Dance activity courses provided in the school offer experiences for the general student population in modern, jazz, ballet, folk, and social forms.

Dance Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 10081)

All candidates for a degree in liberal arts and sciences must complete the requirements listed in the section of this catalog on "Graduation Requirements." No more than 64 units in dance courses can apply to the degree.

A minor is not required with this major.
For information regarding this program contact the adviser, Patricia R. Sandback, or the School of Music and Dance.

Preparation for the Major. Dance 110, 111, 121, 131, 141, 171, 181, 183, 221, 241, 253, 255, 256, 261 (four units), 271, 281, 285; Anthropology 102; Biology 150; Psychology 101. (45 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to the section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 35 upper division units to include Dance 321, 341, 353, 354, 365 (two units), 371, 381, 441, 453, 481, 483, 486, 487; Biology 336; and Physical Education 303.

Dance Minor

Prerequisites to the minor: Dance 110, 121, and 131. (6 units)
The minor in dance consists of a minimum of 24 units in dance, of which eight units must be upper division, to include Dance 141, 171, 181, 183, 241, 253, 255, 271, 341, 353, 354, and 371.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses**LOWER DIVISION COURSES****100. Dance Activity (1)**

Two hours of activity
Open to all students. Provides physically skilled instruction and knowledge of ballroom, folk, ballet, jazz, and modern dance forms at the beginning and intermediate levels.

- A. Beginning Ballroom Dance (Formerly numbered Physical Education 132A.)
- B. Intermediate Ballroom Dance (Formerly numbered Physical Education 132B.)
- C. Beginning Folk Dance
- D. Intermediate Folk Dance
- E. Beginning Ballet (Formerly numbered Physical Education 135A.)
- F. Intermediate Ballet (Formerly numbered Physical Education 135B.)
- G. Beginning Jazz Dance (Formerly numbered Physical Education 136A.)
- H. Intermediate Jazz Dance (Formerly numbered Physical Education 136B.)
- I. Beginning Modern Dance (Formerly numbered Physical Education 134A.)
- J. Intermediate Modern Dance (Formerly numbered Physical Education 134B.)

110. Historical and Contemporary Social Dance Forms (2) I

Four hours of activity.
Court and country dances of Renaissance and Baroque periods. Social dances of the nineteenth and twentieth centuries. (Formerly numbered Dance 101.)

111. Ethnic Dance Forms (2) II

Four hours of activity.
Techniques, styles, and rhythms of traditional dance in selected cultures.

121. Ballet I (2) I

Four hours of activity.
Prerequisite: Dance majors and minors only.
Ballet skills for dance majors and minors emphasizing placement, coordination, ballet terminology, and technical principles.

131. Jazz Dance I (2)

Four hours of activity.
Prerequisite: Dance majors and minors only.
Jazz dance technique and fundamentals. (Formerly numbered Dance 231.)

**141. Modern Dance I (3) I**

Six hours of activity.
Prerequisite: Open only to dance majors and minors.
Basic modern dance skills with emphasis on alignment.

171. Dance Production I (1) Cr/NC I

Three hours of laboratory.
Technical experience in dance production.

181. Introduction to Dance (3) I, II

Foundations of dance in Western civilization. Dance as art, therapy, fitness, ritual, and social discourse. Analysis of dance in film, video, and live performance with an appreciation for artistic intent, technique, and style.

183. Rhythmic Analysis (2) II

One lecture and two hours of activity.
Music as related to movement; notation and simple music forms applied to all movement activities; percussion accompaniment; writing of percussion scores, music repertoire for dance.

221. Ballet II (2) II

Four hours of activity.
Prerequisite: Dance 121.
Ballet skills for dance majors emphasizing increased complexity, strength, and endurance.

241. Modern Dance II (3) II

Six hours of activity.
Prerequisite: Dance 141.
Continuation of development of modern dance skill with emphasis on function of alignment and articulation of the extremities in motion.

253. Choreography I (2) I

Four hours of activity.
Using concepts of space, time, and energy to investigate and explore basic elements of choreography. Studies and compositions emphasizing solo and small group works.

255. Dance Improvisation I (1) I

Two hours of activity.
Exploring improvisation through specific stimulus leading to the acquisition of basic improvisational skills.

256. Dance Improvisation II (1) I

Two hours of activity.
Prerequisite: Dance 255.
Practice in more complex arrangements of improvisation.

261. Dance Rehearsal and Performance (1) Cr/NC II

Three hours of laboratory.
Prerequisite: Entrance by audition.
Practical experience in departmental public performance. Maximum credit four units.

271. Dance Production II (1) Cr/NC II

Three hours of laboratory.
Prerequisite: Dance 171.
Technical experience in dance production.

281. Dance in World Cultures (2) I

Prerequisites: Dance 111 and Anthropology 102.
Dance in selected cultures; geographic, historical, social, and aesthetic factors which have shaped development and function.

285. Dance Pedagogy (2) I

Four hours of activity.
Teaching theory as applied to ballet, modern, jazz, and social dance for adult populations.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

321. Ballet III (2) II

Four hours of activity.
Prerequisite: Dance 221.
Ballet skills for dance majors emphasizing turns, jumps, batterie, extended sequences, and movement quality.

341. Modern Dance III (3) I

Six hours of activity.
Prerequisite: Dance 241.
Progressively difficult movement patterns based on previously developed skills with emphasis on elevation, rhythm, body design, and dynamic flow of movement.

353. Choreography II (2) II

Four hours of activity.
Prerequisite: Dance 253.
Introducing large group works, solo and small group work in organizing more complex arrangements of the basic elements of dance composition. Utilizing music and sound as aural contributions to choreography.

354. Choreography III (2) I

Four hours of activity.
Prerequisite: Dance 353.
Approaching dance as a fundamental means of communication. Recognizing the relationship between form and content.

365. University Dance Company: Major Performance (1) Cr/NC I

More than three hours of activity per week.
Prerequisites: Open only to dance majors. Audition and approval by dance faculty.

Practical experience in University dance company including concert performances of dance repertory, production of choreographic works, presentation of master classes and workshops, and participation in major production. Maximum credit four units.

371. Dance Production III (1) Cr/NC I

Three hours of laboratory.
Prerequisite: Dance 271.
Technical experience in dance production.

381. Dance History (3)

Prerequisite: Dance 181.
Integrated approach to understanding of historical forces shaping the development of dance.

398. Dance Internship (1-3)

Prerequisite: Upper division standing and consent of dance director. Open only to dance majors and minors.
Supervised practical experience in dance studio management and instruction. Maximum credit three units.

441. Modern Dance IV (3) II

Six hours of activity.
Prerequisite: Dance 341.
Advanced modern dance techniques based on skills developed in Dance 141 through Dance 341 with emphasis on performance qualities in projection, vitality, and executing.

453. Choreography IV (2) II

Four hours of activity.
Prerequisite: Dance 354.
Choreography of solo and group works utilizing symbiotic relationship of movement, sound, lighting, costuming, and other interdisciplinary media. Presentation of a recital.

481. Dance Philosophy and Criticism (2) I

Prerequisite: Dance 381.
Philosophy and aesthetics of dance. Historical foundations of dance criticism. Major contemporary schools of thought. Professional preparation and function of the dance critic.

483. Dance Notation (3) I

Prerequisite: Completion of preparation for the major in dance.
Theories and application of dance notation systems and other methods of recording dance. Basic skills in writing dance in Labanotation; reading notated dance scores; experiences in recording ethnic, ballet, jazz, and modern dance.

486. Dance Practicum: Folk, Square, Ballroom (2) II

Four hours of activity.
Prerequisite: Dance 285.
Teaching techniques in folk, square, and ballroom dance and practice in the use of these techniques.

487. Dance Practicum: Modern, Ballet, Jazz (2) II

Four hours of activity.
Prerequisite: Dance 285.
Teaching techniques in modern dance, jazz dance, and ballet and practice in the use of these techniques.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Consent of the dance director.
Individual study. Maximum credit six units.

Drama

In the College of Professional Studies and Fine Arts

Accredited by the National Association of Schools of Theatre.

Faculty

Emeritus: Howard, Stephenson
Chair: Annas
The Don W. Powell Chair in Scene Design: Funicello
Professors: Annas, Harvey, A.C., Harvey, M., Larham, McKerrow, O'Donnell, Owen, Salzer, Wolf
Associate Professors: Kalustian, Reid
Assistant Professors: Schreiber, Simas
Lecturer: Holly

Offered by the Department

Master of Arts degree in drama.
Master of Fine Arts degree in drama.
Major in drama with the B.A. degree in applied arts and sciences.
Emphasis in children's drama.
Emphasis in design for drama.
Emphasis in design for television and film.
Emphasis in performance.
Teaching major in drama for the single subject teaching credential in English.
Minor in drama.

The Don W. Powell Chair in Scene Design

The Don W. Powell Chair in Scene Design was established through a trust provided by the late professor emeritus. Always concerned about students, Powell, who retired after 30 years with the drama department, created the trust in order to enhance theatre education at SDSU. The first holder of The Don W. Powell Scene Design Chair is the nationally acclaimed designer Ralph Funicello.

The Major

The bachelor's degree in drama prepares students for excellence in performance and design. To achieve that goal, the department offers a rich diversity of courses and a six-play production season open to the San Diego public with many creative design and performance opportunities for the student. In addition, professional growth opportunities are provided through association with a number of regional professional theatre companies as well as campus visits by professional theatre managers, directors, stage managers, designers, playwrights, and actors. The program is structured in a manner which involves students in all aspects of theatre. Students have the option of pursuing either a general emphasis in drama or specializing in a single emphasis area.

The Department of Drama offers students a wide variety of courses taught by a highly qualified faculty. The mission of the department is twofold. First of all, we wish to provide quality education on the undergraduate and graduate levels for students who desire to pursue a career in theatre, whether that career be in acting, directing, design, technical theatre, or teaching. Our second, and equally important mission, is a strong commitment to the philosophy of the University as a liberal arts institution. We provide undergraduate students an opportunity to enrich their present and future lives by learning to understand and enjoy the art of theatre.

The faculty of the Department of Drama believes that theatre is a rewarding undergraduate major, even for those who do not plan a career in the field. The study of theatre enriches the lives of men and women because it helps them to know themselves and to interact

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effectively with one another. Theatre is the fine art which is often considered to be a combination of all the arts. Through it, we experience the work of some of the greatest writers and thinkers and artists our civilization has ever known. As we learn about theatre, we understand more about ourselves and develop a remarkable respect for the human spirit.

The Department of Drama's training is specifically geared toward assisting students in their efforts to seek professional work in various fields of theatre arts, to seek teaching positions in various levels of educational theatre, to contribute to the cultural life of the community by participating in civic and community theatre work, and to further their awareness of drama as a significant art form in order to become informed and discriminating members of the theatre public.

In addition, the Department of Drama offers a wide variety of courses which provide excellent enrichment opportunities for the non-drama major. Students pursuing study in "people/service related" disciplines such as education, business administration, telecommunications and film, counseling, advertising, journalism, and prelaw are encouraged to explore the many courses available in the department's curriculum which will prove rewarding and beneficial to their career objectives.

Drama Major

With the B.A. Degree in Applied Arts and Sciences
(Major Code: 10071)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

General Drama Program

Preparation for the Major. Drama 100, 107, 110, 120, 130, 231, 240A, 240B. (24 units)

Upper Division Writing Requirement. Passing the University Writing Examination or Rhetoric and Writing 305W or 500W with a grade of C (2.0) or better.

Major. A minimum of 38 upper division units in drama to include Drama 325, 359, 425, 442A, 442B, 442C (four units required), 460A, 460B; and six units selected from Drama 440, 447, 452, 530; three units selected from Drama 350 or 351, 355, 532, 551, 555; and six units selected from Drama 310, 315, 459, 475A, 475B, 589.

Emphasis in Children's Drama

Preparation for the Major. Drama 100, 107, 110, 120, 130, 240A, 240B. (21 units)

Upper Division Writing Requirement. Passing the University Writing Examination or Rhetoric and Writing 305W or 500W with a grade of C (2.0) or better.

Major. A minimum of 44 upper division units to include Drama 310, 315, 325, 359, 425, 442A, 442B, 442C (four units required), 460A, 460B, 480, 510, 515; Teacher Education 530; and three units selected from Drama 329A or 329B, 440, 447, 452, or 459.

Emphasis in Design for Drama

Preparation for the Major. Drama 100, 107, 110, 120, 130, 240A, 240B. (21 units)

Upper Division Writing Requirement. Passing the University Writing Examination or Rhetoric and Writing 503W with a grade of C (2.0) or better.

Major. A minimum of 44 upper division units in drama to include Drama 325, 359, 425, 440, 442A, 442B, 442C (four units required), 447, 452, 460A, 460B, 530; and three units selected from Drama 540, 547, 548, or 552; and six units selected from Drama 349, 448A, 448B, 541, 543, 554A, or 554B. Suggested drama electives include Drama 470A, 470B, 475B, 551.

Emphasis in Design for Television and Film

Preparation for the Major. Drama 100, 107, 130, 240A, 240B; Telecommunications and Film 250. (18 units)

Upper Division Writing Requirement. Passing the University Writing Examination or Rhetoric and Writing 503W with a grade of C (2.0) or better.

Major. A minimum of 54 upper division units to include Drama 325, 359, 425, 440, 442A, 442B, 442C (four units required), 447, 452, 460A, 460B, 530; Telecommunications and Film 325, 401, 550; and six units selected from either Drama 540, 547, 548, 552 or Telecommunications and Film 330 or 551; and four units selected from Drama 349, 448A, 448B, 541, 543, 554A, or 554B.

Emphasis in Performance

Preparation for the Major. Drama 100, 107, 110, 120, 130, 231, 240A, 240B. (24 units)

Upper Division Writing Requirement. Passing the University Writing Examination or Rhetoric and Writing 305W or 500W with a grade of C (2.0) or better.

Major. A minimum of 44 upper division units in drama to include Drama 325, 355, 359, 425, 442A, 442B, 442C (four units required), 445 (two units required), 460A, 460B, 551, 555; and either 320 or 330; and nine units selected from Drama 350, 351, 431, 434, 532, 533A, or 533B. Recommended electives: Drama 349, 459, 475A, 475B, or Telecommunications and Film 391.

Drama Major

For the Single Subject Teaching Credential in English
With the B.A. Degree in Applied Arts and Sciences
(Major Code: 10071)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education.

This major may be used by students in policy studies or teacher education as an undergraduate major for the B.A. degree in applied arts and sciences.

Preparation for the Major. Drama 100 or 120, 107, 240A, 240B; Linguistics 101; Comparative Literature 270A or 270B or English 220; Humanities 140; Rhetoric and Writing 100 and 200; Speech Communication 135 or Journalism 200; and three units selected from Drama 130 or English 280 or 281 or Journalism 220; and six units from one of the following sequences: English 250A and 250B or English 260A and 260B. Drama 100 or 120 and 107 must be taken early in the student's program in order to satisfy prerequisites. Drama 110 and 231 are recommended lower division electives. (42 units)

Upper Division Writing Requirement. Passing the University Writing Examination or Rhetoric and Writing 500W with a grade of C (2.0) or better.

Major. A minimum of 39 upper division units to include Drama 325, 359, 425, 460A, 460B, 480, and Drama 310 or Comparative Literature 562; English 533 and Rhetoric and Writing 509; three units selected from English 522, 523, 524, or 525 (for those students who previously selected English 260A and 260B), or three units selected from English 560A or 560B (for those students who previously selected English 250A and 250B); and nine units selected from one of the following sequences:

Children's Drama: Drama 315, 510, 515.

Design for Drama: Drama 440, 447, 452, 546, 548.

Musical Theatre: Drama 350, 351, 355 or 555.

Performance/Stage Management: Drama 110, 231, 355 or 555, 459, 475A, 515.

An additional six units selected from the following: Africana Studies 460, 461, 462, 463, 464; American Indian Studies 430; English 519 or 520 and 541A or 541B; Journalism 408; Linguistics 420, 530, 550; Mexican American Studies 335, 464; Speech Communication 335, 360, 391, 407, 475, 491.

Drama Minor

The following courses are prerequisite to the drama minor and do not count toward the 24 units required for the minor: Drama 100 and 120. (6 units)

The minor in drama consists of a minimum of 24 units in drama to include Drama 107, 115, 240A, 240B, 325, 425, 460A and 460B.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and General Education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

100. Theatre and Western Civilization (3) I, II

Theatre as a reflection of society and as a contributor to the development of Western civilization. Emphasis on theatre's continuing relevance to contemporary society. Attendance at selected theatre events required.

107. Design Communication and the Audience Response (3) I, II

Use of visual and aural design components by the actor, director, and designer in relation to audience response. Preparatory to drama major sequence.

110. Voice and Diction for the Theatre I (3) I, II (CAN DRAM 6)

Exercises and drills to improve the quality, flexibility and effectiveness of the speaking voice leading to good usage in standard American speech.

115. Acting for Nonmajors (3) I, II

Improvisational exercises (verbal and nonverbal) in sensory awareness, observation, concentration, listening, and response skills with application to other fields. Individual presentation techniques for the preprofessional in other disciplines. Not open to drama majors.

120. Heritage of Dramatic Literature (3) I, II

Three lectures and attendance at selected performances. Survey of dramatic literature from classical to the modern period, including classical, medieval, Renaissance, Restoration, neoclassical, romantic, realistic and modern plays.

130. Acting I (3) I, II (CAN DRAM 8)

Development of individual's ability to express thought and emotion through effective use of the voice and body. These fundamental concepts may be applied to stage, film, and television acting.

231. Acting II (3) I

Prerequisite: Drama 130.
Continuation of Drama 130, emphasizing application of fundamental skills to problems of emotion, timing, characterization, and ensemble acting.

240A. Theatre Design and Technology I (3) I, II

Two lectures and three hours of laboratory.
Prerequisites: Drama 100 and 107.
Design, technical practices, and production organization for the theatre. Scenery design, stagecraft, properties, and drafting. Part one of a two-part course.

**240B. Theatre Design and Technology II (3) I, II**

Two lectures and three hours of laboratory.
Prerequisite: Drama 240A.

Design, technical practices, and production organization for the theatre. Costume design and technology, makeup, lighting design, sound design, and related technology. Part two of a two-part course.

245. Theatre Marketing and Publicity (3)

One lecture and four hours of activity.
Practical experience in marketing and publicity for theatres, including PSA's, press releases, layout/graphics for written materials, magazine and newspaper advertisements, marketing strategy and campaign development for a full theatre season.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)

310. Creative Drama I (3) I, II, S

Current philosophies, principles, and techniques of creative drama. Development of the individual through use of dramatic play, imaging, improvisation, and theatre games. Applicable to classroom teaching, counseling, recreation, and senior citizen programs.

315. Theatre for Young Audiences (3) I, II

Current philosophies and practices in theatre for young audiences. Techniques of selecting and producing plays for and with youth. Theatre styles, script analysis, and functions of the production team.

320. Voice and Diction for the Theatre II (3) II

Prerequisite: Drama 110.
Techniques of vocal expression in the theatre, primarily in plays of Shakespeare and classical Greek drama. Emphasis on individualized instruction and vocal problem solving.

325. Play Analysis (3) I, II

Prerequisites: Drama 100 and 107.
Analysis of representative plays with emphasis on plot and character development, dramatic structure, action, and style.

329. Practicum in Theatre for Young Audiences (3) Cr/NC

Six hours of activity.
Prerequisites: Drama 315 and consent of instructor.
Practical experience in departmental public performance of plays for young audiences. (Formerly numbered Drama 329B.)

330. Accents and Dialects for the Stage (3)

Prerequisite: Drama 130.
Various accents and dialects most frequently occurring in stage productions.

349. Theatrical Makeup (2) I

Two hours per unit.
Prerequisite: Drama 240B.
Planning and application of makeup for stage, film, and television. Classroom exercises and production-related activities.

350. Acting Studies in Musical Theatre (3) I

Two lectures and two hours of activity.
Prerequisite: Admission by consent of instructor.
Performance techniques in musical theatre. Emphasis on application of acting theory to musical theatre literature. Maximum credit six units.

351. Musical Theatre Song and Scene Analysis (3) II

Prerequisite: Consent of instructor.
Vocal selections and scenes in musical theatre. Emphasis on characterization requirements, appropriate performance styles. Maximum credit six units.

355. Movement for the Theatre I (2) II

Two hours of activity per unit.
Prerequisite: Drama 100.
Locomotor and axial body movement for the stage director and actor; introduction to mime. Relationship between body expression and character portrayal.

359. Directing I (3) I, II

Prerequisites: Drama 115 (for minors) or 130 (for majors), and 325.
Principles and techniques of directing for the stage: play selection, analysis, and interpretation; casting methods; stage composition and movement; and rehearsal procedures.

397. Shakespeare at the Globe: Onstage and Backstage (1-3) S (Offered only in Extension)

Study of Old Globe Theatre's annual summer Shakespeare Festival. Does not apply to undergraduate degrees or credentials.

425. Production Synthesis (3)

Prerequisites: Drama 240B and 359.
Capstone course integrating artistic vision and production considerations through synthesis of text analysis, performance, and design in collaborative process unique to the theatre.

431. Workshop in Improvisational Acting (3) I

Prerequisite: Drama 231.
Theories and principles of improvisational acting.

434. Audition Techniques for the Actor (3) II

Two lectures and two hours of activity.
Prerequisite: Drama 231.
Techniques of auditioning and interviewing in the theatre, film, and television; selecting audition pieces, rehearsing, and performing auditions.

440. Scene Design I (3) I

Two lectures and three hours of laboratory.
Prerequisites: Drama 240B and 325.
Techniques and procedures in application of design, color, and perspective in designing scenery.

442A-442B-442C. Practicum in Theatrical Production (2-2-2) Cr/NC I, II

Two hours of activity per unit.
Prerequisite for 442A: Drama 240B.
Technical theatre production experience for departmental public performances.

- A. Scenery Construction
- B. Costume Construction
- C. Production Crews. (Four units required.)

445. Practicum in Performance (1-6) Cr/NC I, II

Two hours per unit.
Practical experience in departmental public performances. Maximum credit six units.

447. Lighting Design I (3) II

Two lectures and three hours of laboratory.
Prerequisites: Drama 240B and 325.
Concepts and technologies in lighting for theatre and related performance areas. Emphasis on mechanics of stage lighting, color, instruments, and control. Laboratory and production related activities.

448A. Scene Design Technology I (2) I

Four hours of activity.
Prerequisite: Drama 240B.
Theatre drafting standards and techniques with emphasis on multi-set production: Floor plans, sections, elevations, working drawings, perspective drawings, and light plots.

448B. Scene Design Technology II (2) I

Four hours of activity.
Prerequisite: Drama 240B.
Current materials and practices of scenery technology. Advanced construction techniques, research, budget and management procedures.

452. Costume Design I (3) I

Two lectures and three hours of laboratory.
Prerequisites: Drama 240B and 325.
Theory and creative application of principles of costume design for various types of production. Emphasis on concept development, character interpretation, research methods, color organization, and fabric selection. Laboratory and production related activities.

459. Directing II (3) II

Two lectures and two hours of activity.
Prerequisites: Drama 359 and consent of instructor.
Experience and group evaluation in directing one-act plays before an audience. Attendance at selected public performances required.

460A-460B. History of the Theatre (3-3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities. Prerequisite not required for Drama majors.

The theatre from primitive times to the beginnings of modern theatre. Special attention will be given to the theatre as a mirror of the social and cultural background of the various countries and periods in which it is studied. Drama 460A is not prerequisite to 460B.

470A-470B. Practicum in Theatrical Design (1-3) I, II

Prerequisites: Upper division standing and consent of instructor.
Design projects in areas of scenery, costumes, lighting, sound, or makeup. Maximum credit six units.

- A. Independent Studies with Don W. Powell Chair in Scene Design
- B. Design for Departmental Public Performances

475A. Stage Management-Theory (2) I

Prerequisites: Drama 240B and 359.
Development of the prompt script, organizational methods, and collaborative personnel interaction.

475B. Stage Management-Practicum (2) I, II

Hours vary.
Prerequisite: Drama 475A.
Practical experience in stage managing department productions. Maximum credit four units.

480. Drama in the Classroom: K-12 (3) II

Prerequisites: Drama 310 and 315.
Methods of teaching drama in elementary, middle, and secondary schools. Emphasis on organization of curriculum, play selection, and principles of producing plays in the classroom.

496. Experimental Topics (1-4) I, II

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

510. Creative Drama II (3) I

Prerequisite: Drama 310.
Advanced techniques and procedures in teaching creative drama. Emphasis on a multicultural approach. Practical experience through fieldwork in elementary or middle school classrooms.

515. Directing for Young Audiences (3) II

Prerequisite: Drama 315.
Techniques of directing productions for young audiences: casting, staging, characterization, rehearsal techniques.

520. History of Musical Theatre (3) I

Prerequisite: Upper division standing.
Musical theatre from early Viennese operettas to musicals of modern times; representative works.

530. Period Dress and Decor (3)

Prerequisite: Drama 240B or graduate standing.
Visual survey of relationships and cultural significance of period dress, architecture, and decorative arts as applied to theatrical productions. Emphasis on significant historic periods in dramatic literature. (Formerly numbered Drama 450.)

532. Advanced Acting and Directing (3) I

Prerequisite: Drama 231. Acting students admitted by audition only; directing students by interview.
Problems in characterization in contemporary drama, and in plays of Ibsen, Strindberg, Chekhov, and Shaw.

533A-533B. Theory and Styles in Acting and Directing I and II (3-3)

Prerequisite: Drama 231. Acting students admitted by audition only; directing students by interview.

Acting and directing problems in theory and style related to the production of plays from great periods in theatre history, with attention to characterization, dramatic values, creative directing and production approaches. 533A: Shakespearean tragedy and history, melodrama. 533B: Greek tragedy, Shakespearean comedy.

539. Theatre Design Visualization (2) I

Four hours of activity.
Prerequisite: Drama 240B.
Approaches to completing successful set and costume rendering, scenic models, and lighting studies. Techniques, media, and portfolio presentation.

540. Scene Design II (3) II

Prerequisites: Drama 440 and 530.
History of scene design and application of contemporary styles to various types of dramatic production.

541. Scene Painting (2) II

Four hours of activity.
Prerequisite: Drama 530.
Theories and techniques of scene painting, including both historical backgrounds and modern procedures. Full-scale projects executed in scenery studio.

543. Stage Property Design (2) II

One lecture and two hours of activity.
Prerequisite: Drama 530.
Theories and techniques of property design for the theatre: script analysis, research methods, planning and budgeting procedures, construction techniques and materials. Projects in property design for selected scripts.

546. Computer Systems for the Theatre (2)

One hour of discussion and three hours of activity.
Prerequisite: Drama 448A.
Functional study of computer systems and their application to the theatre. CADD, lighting and sound control, and production management.

547. Lighting Design II (3) I

Two lectures and three hours of laboratory.
Prerequisite: Drama 447.
Advanced design theories and lighting practice for theatre and dance. Laboratory and production related activities.

548. Sound Design for the Theatre (3) I

Two lectures and two hours of activity.
Prerequisites: Drama 240B and 325.
Theories and techniques of sound design and reinforcement for theatrical performance. Laboratory experience in sound production.

551. Costume, Movement, and Manners (3) I

Prerequisite: Upper division standing or admission to the graduate program.
Interrelationship of period costumes and the movement and manners of selected historical periods; application to staging of plays from pre-modern theatre.

552. Costume Design II (3) II

Prerequisites: Drama 452 and 530.
Advanced studies in costume design. Emphasis on theatrical style, rendering layout, design problems, materials, and budget.

554A. Costume Design Technology I (2) II

Four hours of activity.
Prerequisite: Drama 240B.
Current materials and practices of costume technology: advanced construction techniques, fabric selection and use, period pattern drafting, draping and cutting.

554B. Costume Design Technology II (2) II

Four hours of activity.
Prerequisite: Drama 240B.
Advanced costume craft construction techniques and management procedures for costume production: millinery, fabric dyeing and painting, jewelry, and related crafts.

555. Movement for the Theatre II (2) I

Four hours of activity.
Prerequisite: Drama 130 or admission to the M.F.A. program.
Movement techniques for the theatre student. Emphasis on movement patterns, phrase development, and musical theatre styles. Maximum credit eight units. Maximum credit two units applicable to a bachelor's degree; maximum credit eight units applicable to the M.F.A. degree in drama.

589. Playwriting: The Full-Length Play (3)

Prerequisite: Drama 325. Recommended: English 588.
Format and techniques of writing the full-length play. Problems in characterization, plot, and dialogue. Reading and analysis of full-length plays written by students.

596. Selected Topics in Drama (1-3) I, II

Prerequisite: Twelve units in drama.
A specialized study of selected topics from the areas of drama. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Economics

In the College of Arts and Letters

OFFICE: Nasatir Hall 304

TELEPHONE: (619) 594-1675

Faculty

Emeritus: Anderson, Babilot, Barckley, Flagg, Gifford, Jencks, Leasure, Neuner, Poroy, Sebold, Turner
Chair: Boddy
Professors: Adler, Boddy, Clement, Frantz, Green, Grossbard-Shechtman, Kartman, Madhavan, Nam, Popp, Singh, Stewart, Thayer, Venieris
Associate Professors: Gerber, Hambleton, Steinberg

Offered by the Department

Master of Arts degree in economics.
Major in economics with the B.A. degree in liberal arts and sciences.
Minor in economics.

The Major

Economics is the science which studies the production, distribution, and consumption of goods and services. Economics majors explore how producers, distributors, and consumers make their decisions. Majors also analyze the events that shape and result from these decisions. Inflation, unemployment, taxation, money and banking, efficiency, international exchange, and growth are some of the many parts of this complex system studied through the economics major at SDSU.

The curriculum in economics satisfies a wide range of career goals and student interests. Majors may find employment in government positions, financial institutions, business firms, and international agencies. The combination of an economics major with a business minor provides a foundation for a variety of careers. And, students interested in studying the developing nations, the environment, government policies, or population will find that economics is a useful approach.

Many beginning positions in business and government are available to students with a bachelor's degree in economics. A graduate may find employment as a research, statistical, data, or pricing analyst. There are management trainee positions with banks, savings and loan associations, or other lending institutions. Economics majors may also be employed as sales representatives for firms which produce both "high tech" and consumer-related goods. A student contemplating graduate study in the field of economics should consider a career as an economics consultant, or as an economist for banks, investments, or industry.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Economics Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22041)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in economics courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Economics 101, 102, 201; one course from Mathematics 120, 121, 150; and Computer Science 106 or three units of Social Science 201. (15-17 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units in economics to include Economics 320, 321, and 341, plus 15 units of electives. Students are encouraged to complete the required courses during their junior year.

Although there are no formal emphases within this major and any upper division course is recommended to any student majoring in the discipline, the department strongly recommends that all majors consult an undergraduate adviser. The following program areas have been devised to aid students in selecting their upper division courses.

Theoretical Economics: Students interested in building a theoretical background in economics are advised to take courses in alternative economic theories, history of thought and quantitative economics to include Economics 307, 311, 330, 338, 360, 365, 380, 421, 422, 453, 464, 474, 561, and 592.

Economics of Business and Government: Students interested in preparing for operational positions in business or government are advised to take courses from among Economics 360, 370 or 476, 380, 401, 422, 452, 453, 454, 458, 474, 490, and 592.

Pre-Law: Students interested in preparing for law school are strongly recommended to take courses from among Economics 370 or 476, 380, 401, and 490. Also recommended are Economics 330, 453, 454, and 474.

General Economics: Students seeking a general background in the discipline are encouraged to take at least one course from each of the following: Economic History and Systems: Economics 311, 330, 336, 338; Human Resources: Economics 365, 380, 489; International Economics: Economics 336, 360, 365, 382, 464, 465, 561, 565, 592; Public Issues: Economics 370 or 476, 401, 422, 452, 453, 454, 458, 474, 489, 490.

Students considering graduate school should consult an adviser.

Economics Minor

Prerequisites to the minor include Economics 100 or 101.

The minor in economics consists of a minimum of 15 units in economics, 12 units of which must be in upper division courses. Students must select their 12 upper division units from the economics courses in one of the four areas described in the major. In addition, students may include Economics 320, 321, or 341, in their chosen area.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

100. Contemporary Economic Problems (3) I, II

Investigates economic bases for such current problems as inflation, unemployment, economic power, consumer protection, poverty, discrimination, urban and environmental deterioration, and international domination. Examines such policies as fiscal-monetary policy, tax reform and government controls and provision of services.

101. Principles of Economics (3) I, II, S (CAN ECON 2)

Principles of economic analysis, economic institutions, and issues of public policy. Emphasis on macroanalysis including national income analysis, money and banking, business cycles, and economic stabilization.

102. Principles of Economics (3) I, II, S (CAN ECON 4)

Principles of economic analysis, economic institutions, and issues of public policy. Emphasis on direction of production, allocation of resources, and distribution of income, through the price system (microanalysis); and international economics.

201. Statistical Methods (3) I, II

Prerequisites: Course in intermediate algebra and satisfaction of the Entry-Level Mathematics requirement.

Introduction to descriptive statistics, statistical inference, regression and correlation. Students with credit or concurrent registration in the following lower division statistics courses will be awarded a total of four units for the two (or more) courses: Biology 215; Economics 201; Engineering 140; Mathematics 119, 250; Political Science 201; Psychology 270; and Sociology 201.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)**307. Mathematical Economics (3)**

Prerequisites: Economics 101, 102, and Mathematics 121 or 150. Mathematical concepts as tools in understanding, developing and illustrating economic theories. Applications of calculus and linear equations to constrained optimization, macro models, elasticity, general equilibrium, and input-output analysis.

311. History of Economic Thought (3)

Prerequisites: Economics 101 and 102. The development of economics. Contributions of schools of thought and individual writers are examined with regard to their influence on economic theory and policy.

320. Intermediate Macroeconomic Theory (3) I, II, S

Prerequisite: Economics 101 or Economics 100 with approval of department. Recommended: Mathematics 120 or 121 or 150.

Determination of output, income, unemployment, and inflation. Policies for economic stabilization and growth in an open economy.

321. Intermediate Microeconomic Theory (3) I, II, S

Prerequisite: Economics 102 or Economics 100 with approval of department. Recommended: Mathematics 120 or 121 or 150.

Behavior of consumers, firms and industries with respect to product and input markets. Price system and other models of economic decision making. Economic efficiency and welfare; property rights and externalities.

330. Comparative Economic Systems (3)

Prerequisites: Six units of economics to include Economics 102; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. General Education prerequisite not required for Economics majors.

The economic aspects of laissez-faire and regulated capitalism, cooperatives, socialism, communism, nazism, fascism. Criteria for evaluating economic systems. The individual and government in each system. Planning in a liberal capitalistic society.

336. Economic History of Emerging Nations (3)

Prerequisite: Six units of economics to include Economics 101. Evolution of economic organization, institutions, and policies of Africa, Asia, and Latin America. Regional emphasis will vary. Maximum credit six units.

338. Economic History of the United States (3)

Prerequisite: Six units of economics to include Economics 101. American economic development and national legislation. Studies of agriculture, industry, the labor force, and national output.

341. Introduction to Econometrics (3) I, II

Prerequisites: Economics 101, 102, 201; Mathematics 120 or 121 or 150; Social Science 201 or Computer Science 106. Recommended: Economics 320 or 321.

Econometric techniques with emphasis on single-equation models. Applied skills learned through computer assignments.

360. International Economic Problems (3)

Prerequisites: Economics 101 and 102. International problems, economic communities, organizations, and other selected topics.

365. Economics of Underdeveloped Areas (3)

Prerequisite: Six units of economics to include Economics 101. The nature and causes of economic underdevelopment. Problems of and policies for the economic development of underdeveloped areas of the world.

370. Government and Business (3)

Prerequisite: Six units of economics to include Economics 102. Governmental activities affecting business; the state as an entrepreneur and manager; governmental assistance to business; governmental regulation of business in its historical, legal and economic aspects, including recent developments in the United States and abroad; proposed policies.

380. Labor Problems (3)

Prerequisite: Six units of economics to include Economics 102. Labor force and mobility, human capital, labor demand, discrimination, determination of compensation and employment, productivity, impact of labor organizations, labor disputes, and social legislation.

382. Economics of Marriage and the Family (3)

Prerequisite: Economics 102. Microanalysis of marriage and divorce; labor supply and marriage; marriage and productivity, consumption and savings; macroanalysis of household structure and the economy.

401. Public Finance (3)

Prerequisites: Economics 101 and 102. Principles and practices of taxation and public expenditures. Economic effects of public spending, debts and taxation. Financing social security and other services. Fiscal policy and prosperity. Relation to inflation and deflation. Special emphasis on social problems involved.

421. Applied Microeconomics (3)

Prerequisites: Economics 321 and Mathematics 120 or 121 or 150. Consumer and producer behavior using mathematical optimization techniques. Mathematical approaches to oligopoly, bargaining theory and to policy issues.

422. Business Cycles (3)

Prerequisites: Economics 101 and 102. Fundamental factors in economic fluctuations. Examination of business cycle theories, and various policy proposals for economic stabilization. A consideration of current economic conditions and an examination of methods employed in preparing national economic forecasts.

452. Economics of Energy Resources (3)

Prerequisite: Six units of economics. Economic structure of energy supply in the United States: electric power, fossil fuels, nuclear energy. Economic potential of alternative energy sources. Public policy issues: oil imports and self-sufficiency; energy costs, conservation, and curtailment; energy growth and its environmental impact.

453. Economics and Ecology (3)

Prerequisites: Economics 101 and 102. Relation of ecological problems to basic economic institutions. Examination of the apparent conflict between economic needs and ecological requirements. Economics of air, fresh water, ocean and land pollution, overpopulation and natural resource utilization. Investigation of possible solutions.

454. Economics of the Ocean (3)

Prerequisites: Economics 101 and 102. Economic analysis of fisheries, seabed resources, shipping lanes, allocation of the coastal zone, and ocean pollution. Economic implications of alternative legal arrangements concerning the ocean.

458. Urban and Regional Economics (3)

Prerequisites: Economics 101 and 102. Major influences on the economic conditions of urban and nonurban areas; specific urban problems including housing, land use, and growth. Discussion of San Diego problems.

464. Economic Problems of Latin America (3)

Prerequisites: Six units of economics to include Economics 101; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. General Education prerequisite not required for Economics majors. Economic development, institutions, and problems of Latin America in the context of a global economy.

465. Economic Problems of South and East Asia (3)

Prerequisites: Six units of economics to include Economics 101; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. General Education prerequisite not required for Economics majors. Economic development, institutions, and problems of China, India, and other developing countries in the region.

474. Industrial Organization (3)

Prerequisites: Economics 101 and 102. Causes and implications of economic concentration and monopoly power. Evaluation of industry structure, conduct, and performance in terms of social and economic goals.

476. Economics of Antitrust and Regulation (3)

Prerequisites: Economics 101, 102, and 474 or 321. Attempts to control monopoly power through antitrust laws and government regulation.

489. Economics and Population (3)

Prerequisites: Six units of economics to include Economics 102; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. General Education prerequisite not required for Economics majors. Relation of fertility, marriage, migration, and other dimensions of population to various economic factors affecting household behavior. Demographic measures and projections, application to product markets and to policies of developed and less developed countries.

490. Money and Banking (3) I, II, S

Prerequisites: Economics 101 and 102. The elements of monetary theory. History and principles of banking with special reference to the banking system of the United States.

495. Economics Internship (3) Cr/NC I, II, S

Prerequisite: Consent of instructor. Internship with business firms, nonprofit organizations and government agencies. Work done under joint direction of activity supervisor and instructor. Project report and internship conferences required. Maximum credit six units.

496. Experimental Topics (1-3)

Prerequisite: Consent of instructor. Selected topics in economics. May be repeated with approval of the instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor. Individual study. May be repeated for a maximum of six units. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)**561. International Trade (3)**

Prerequisites: Economics 320 and 321. Theory and policy of international trade with examples drawn from current issues. Models of determinants of trade. Free trade and protectionism. Trade and economic development. Trading blocs, the European community, GATT and U.S. trade policy.

565. North American Economic Relations (3)

Prerequisites: Economics 101 and 102. Recommended: Economics 360. Socioeconomic development of U.S., Mexico, and Canada since World War II. Issues affecting the three countries' relations, including trade investment, technology, and international organizations and agreements.

592. International Monetary Theory and Policy (3)

Prerequisite: Economics 320 or 490. International monetary spillovers from domestic macroeconomic policies. Foreign exchange markets and balance of payments. Fixed, flexible and managed exchange rates. Bretton Woods, international monetary fund, and world debt crisis.

596. Experimental Topics (3)

Prerequisite: Consent of instructor. Intensive study in specific areas of economics. Topics to be announced in the Class Schedule. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Education

In the College of Education

Accredited by the California Commission on Teacher Credentialing.

Faculty

Faculty assigned to teach in education are drawn from departments in the College of Education.

Courses

UPPER DIVISION COURSES (Intended for Undergraduates)

350. Education in American Society (3) I, II, S

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Philosophical, historical and psychological roots of education in America; current models, instructional designs and strategies of education. Contemporary concerns in education.

451. Introduction to Multicultural Education (3)

Overview of cultural pluralism in education, industry, business, other institutions, and society at large.

GRADUATE COURSES Refer to the Graduate Bulletin.

"If you are planning for a year,
sow rice. If you are planning for
a decade, plant trees. If you are
planning for a lifetime, educate
a person."

— Chinese Proverb

Educational Technology

In the College of Education

OFFICE: North Education 280

TELEPHONE: (619) 594-6718

Accredited by the California Commission on Teacher Credentialing.

Faculty

Emeritus: Anthony, McAllister, Weir

Chair: Harrison

Professors: Allen, Dodge, Harrison, Rossett, Saba

Assistant Professors: Hoffman, Ritchie

Offered by the Department

Master of Arts degree in education.

Concentration in educational technology.

Specialization in educational computing.

Specialization in workforce education and lifelong learning.

Minor in educational technology.

Certificate in instructional software design.

Certificate in instructional technology.

Certificate in workforce education and lifelong learning.

Educational Technology Minor

The minor in educational technology consists of a minimum of 15 units in Educational Technology, 12 of which must be upper division selected from Educational Technology 470, 530, 540, 541, 544, 553, 561, 572, and 596 (when applicable).

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Instructional Technology Certificate

To receive a certificate in instructional technology, candidates must meet departmental admission requirements which include relevant work experience or academic preparation, letters of recommendation, and a writing sample, and must complete the following 15 units of coursework: Educational Technology 540, 541, 544, and six units selected from Educational Technology 553, 572, or 596.

With the approval of the department, a student may apply no more than three units of coursework from the certificate program toward a major or minor.

Courses

UPPER DIVISION COURSES (Intended for Undergraduates)

470. Technologies for Teaching (3) I, II, S

One and one-half hours of lecture and three hours of activity.

Prerequisite: Education 451.

Application of computer and video technologies to practice of teaching. Meets computer literacy requirement for clear teaching credential.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

530. Workforce Education and Lifelong Learning (3)

Prerequisite: Experience as an adult educator in settings such as adult schools or community colleges, job-training settings (JTPA and JOBS-sponsored education; the Job Corps), correctional facilities.

Principles of workforce education and lifelong learning. Workplace and continuing education of non-management employees in corporate and community-based settings.

532. Production of Instructional Materials (3) I, II

Six hours of activity.

Instructional media production for professionals in organizational settings such as hospitals, law offices, accounting firms, publishing companies. Use of videotape, laser disc, multi-image and digital telecommunications for training. Not open to students in educational technology degree and certificate programs or to students with credit in Educational Technology 541.

540. Educational Technology (3) I, II, S

Six hours of activity.

Rationale, foundations, theories, careers, trends, and issues in educational technology. Implications of educational technology for instruction and information in schools, government, and corporations.

541. Multimedia Development (3) I, II, S

One lecture and six hours of laboratory.

Prerequisite: Basic computer literacy and elementary knowledge of an authoring system.

Systems, communication, aesthetic, and learning theories applicable to designing instructional products. Planning, producing, and disseminating technology-based instruction with authoring systems composed of integrated text, audio, graphics, and electronic dissemination. Not open to students with credit in Educational Technology 532.

544. Instructional Design (3) I, II

One lecture and six hours of laboratory.

Prerequisite: Educational Technology 540. Recommended: Educational Technology 541.

Systematic approach to instructional design. Review of research and theory in instructional strategy development. Analysis, design and development of instructional and training products and programs.

553. Educational Television (3) I, II

One lecture and six hours of laboratory.

Prerequisite: Basic audio and video recording skills.

Implications of theory and research for designing, producing, disseminating, and using linear and interactive instructional video programs. Planning pre-production, managing production and post-production.

561. Advanced Media Production (3)

Six hours of activity.

Prerequisites: Educational Technology 541, 544, and 553.

Experimental, creative, and practical approaches to aesthetic design and production of multimedia instructional programs. Integration of graphic, dramatic, and music design principles.

572. Technology for Course Delivery (3) I, II

One lecture and six hours of laboratory.

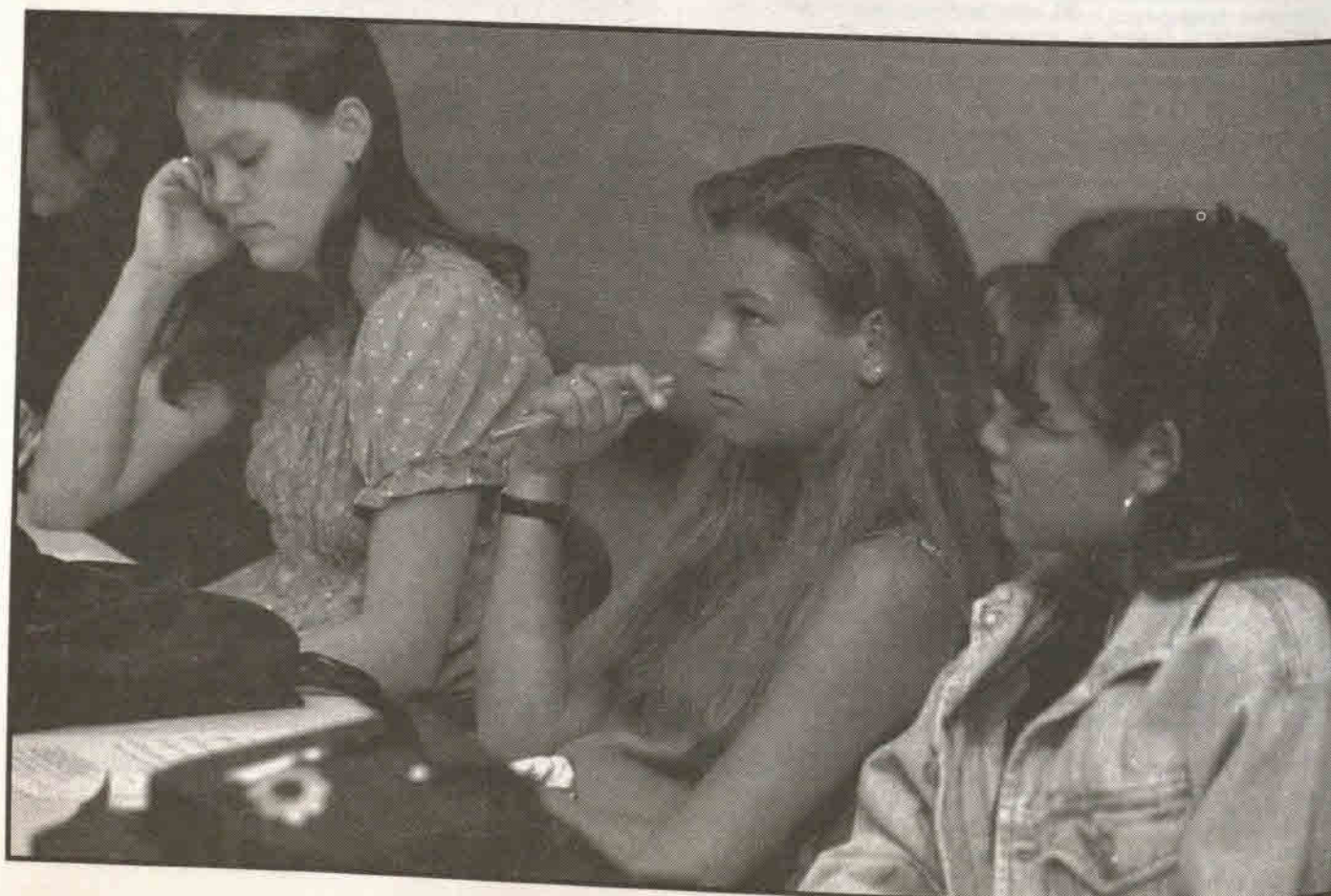
Prerequisite: Educational Technology 541.

Technological tools and instructional strategies for development and management of classroom learning.

596. Topics in Educational Technology (1-3)

Selected problems in educational technology. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES Refer to the Graduate Bulletin.



Electrical Engineering

In the College of Engineering

OFFICE: Engineering 409
TELEPHONE: (619) 594-5718

The undergraduate degree in Electrical Engineering is accredited by the Accreditation Board for Engineering and Technology, Inc.

Faculty

Emeritus: Brown, Chan, Learned, Lodge, Mann, Skaar, Stuart, Wilson
Chair: Panos
Professors: Abut, Chang, Harris, f., Harris, J., Iosupovici, Lee, Lin, Marino, Massey, Panos, Suto, Szeto, Thyagarajan
Associate Professors: Bailey, Betancourt, Kolen, Powell

Offered by the Department of Electrical and Computer Engineering

Doctor of Philosophy degree in applied mechanics.
Master of Science degree in electrical engineering.
Major in electrical engineering with the B.S. degree.

Transfer Credit

No credit will be given for upper division engineering coursework taken at an institution having an engineering program which has not been accredited by the Accreditation Board for Engineering and Technology, Inc., unless the student successfully completes the first 12 units of engineering work attempted at this university. At that time, and upon recommendation of the department, credit will be given for the unaccredited work.

General Education

Students will complete a minimum of 50 units in General Education, to include a minimum of nine upper division units taken after attaining junior class standing. At least three of the nine upper division units must be taken from Explorations; the remaining six units may be taken from Explorations or from specifically approved upper division course substitutions for Foundations areas B and C (Social and Behavioral Sciences and Humanities). No more than twelve units may be used for General Education credit from any one department or academic unit. After enrollment in electrical engineering at SDSU, an Electrical Engineering major must take all upper division electrical engineering courses at SDSU unless prior approval is obtained from the department.

I. Communication and Critical Thinking: 9 units

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)

II. Foundations: 29 units

A. Natural Sciences and Quantitative Reasoning (17 units):

1. Physical Sciences (11 units)
Engineering students will take Chemistry 200 which includes a laboratory (5 units).
Physics 195 (3 units)
Physics 196 (3 units)
2. Life Sciences (3 units)
3. Laboratory (satisfied under A.1. above)
4. Mathematics/Quantitative Reasoning
Engineering students will take Mathematics 150 (3 units) applicable to General Education.

B. Social and Behavioral Sciences (3 units)

C. Humanities (9 units)

Complete three courses in three different areas. One of these courses and the one under IV.A. below must be taken in the same department.

III. American Institutions: Three units of the six units of coursework which meet the American Institutions graduation requirement may be used in General Education, excluding courses numbered 500 and above.

IV. Explorations: Total: 9 units; must include one course of cultural diversity.

A. Upper division Humanities (3 units)

This course must be taken from the same department as one of the Humanities courses selected in Foundations.

B. Upper division Humanities (3 units from an area in Humanities not selected in Foundations)

C. Upper division Social and Behavioral Sciences (3 units)

The Major

The field of Electrical and Computer Engineering involves three major activities: the generation and distribution of electric power; the collection, processing and communication of information; and the study of electromagnetic phenomena and materials.

The electric power industry is the oldest area of Electrical Engineering, but it remains an active area of innovation and development, as well as a major employer. Activities in the power area include the design of machines for energy conversion (motors and generators); the design of DC power supplies and other electronic circuits for the efficient delivery of electric power from various sources (e.g., solar cells, batteries, AC generators); and the design and operation of systems for the distribution of electric power, including the power grid that traverses all of the United States and links to grids of other countries.

The most dynamic area of Electrical Engineering today is the processing and communication of information. Activities in this area include the design of computers and other machines that store, process and display information; and the design of systems for communicating information (e.g., radios, telephones, fax machines, cellular phones, computer networks, satellite communication systems, cable television systems, etc.). Also included in this area are consumer electronics and instrumentation for applications of all sorts (e.g., medicine, industrial process control, machine control, bio-engineering, traffic control, radar, sonar, speech analysis and synthesis, music, etc.).

The study of electromagnetic phenomena and materials provides the foundation for all of Electrical Engineering. Research and development at this level typically leads to new developments and improvements in other areas. Major activities today include the study of energy conversion processes, fabrication processes, imaging techniques, information storage mechanisms, environmental processes, and optoelectronics (e.g., lasers, optical fibers, optical computing).

The Bachelor of Science program includes a required core of courses that provides an introduction to each of the major areas described above. In addition, nearly a full year of professional electives provides the opportunity for the students to specialize in areas of particular interest. The curriculum attempts to achieve a balance between theory and practice that will prepare graduates both for immediate employment and for continued study. The Master of Science program offers graduates in Electrical Engineering and related fields the opportunity for continued study and further specialization.

Employment opportunities within the ECE profession are challenging and usually plentiful. ECE graduates are sought by a wide range of employers in government and industry for many different types of work including design, testing, production, maintenance, system operation, programming, customer engineering, and technical marketing and sales. Graduates have the opportunity to contribute to society by helping to design and supply the high-quality goods and services that are necessary for a strong defense and a healthy economy.

Electrical Engineering Major

With the B.S. Degree (Major Code: 09091)

The program below describes the 139 units required for the degree. Each course specifically listed in the program is required. In addition, the total number of units specified in each elective category represents a minimum requirement. These are General Education, American Institutions, Upper Division Engineering Elective, Professional Electives, Electrical Engineering Laboratory Electives, and the Electrical Engineering Capstone Elective.

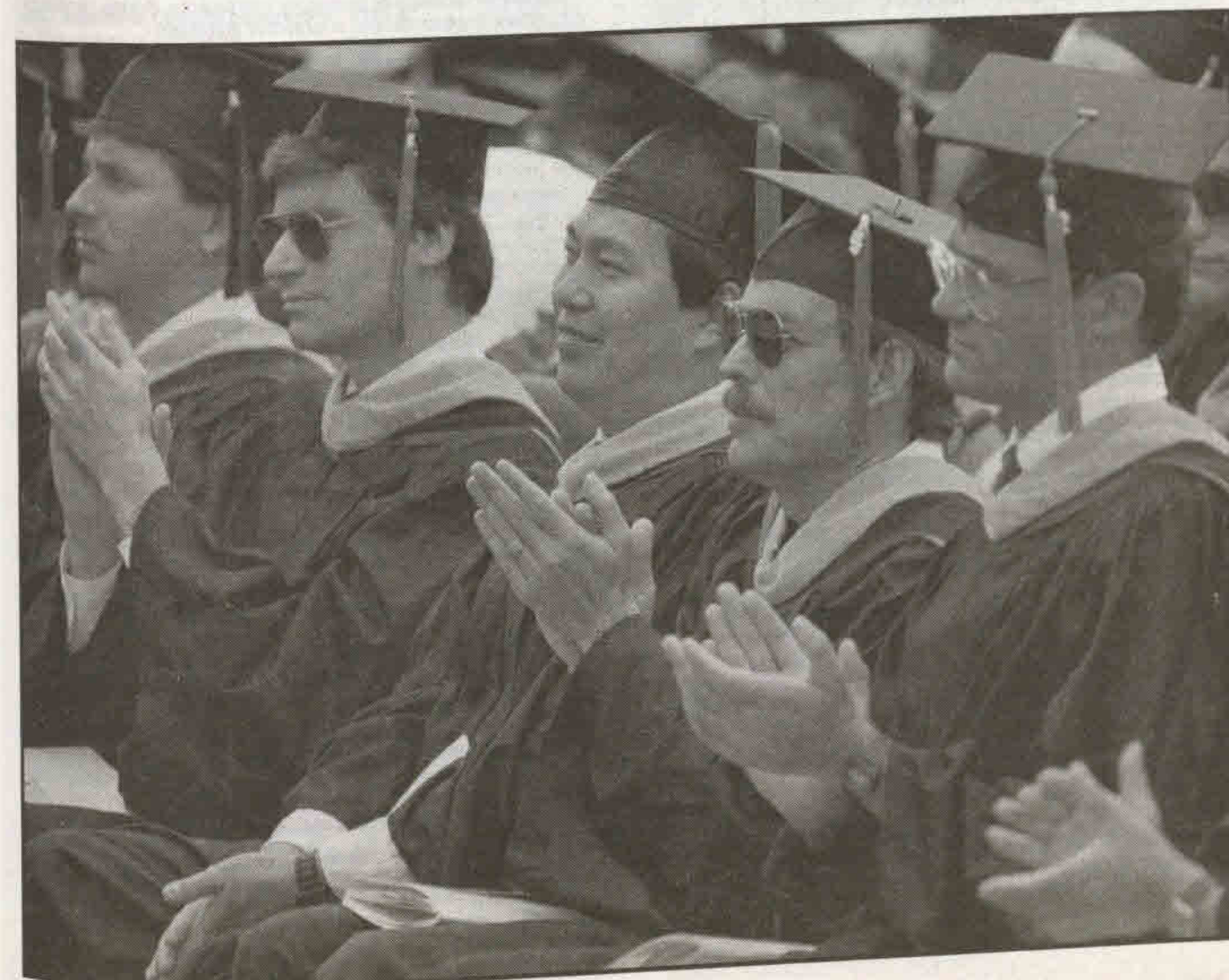
Preparation for the Major. Electrical Engineering 160, 210, 270; Chemistry 200; Engineering 280; Engineering Mechanics 202; Mathematics 150, 151, and 252; Physics 195, 196, 196L, 197, and 197L (44 units, 14 units of which count toward General Education credit)

General Education. Engineering students must follow the specific General Education program outlined on the previous page. Other General Education requirements and limitations, as well as listings of specific General Education course electives are presented in Section IX of Graduation Requirements for the Bachelor's Degree. (Fifty units, including 14 units from preparation for the major which count toward General Education credit, and 3 units of American institutions which count toward General Education credit.)

American Institutions. This requirement is described in Section IV of Graduation Requirements for the Bachelor's Degree. Engineering students are urged to pay particular attention to the transfer credit option in IV.B. (6 units, 3 units of which count toward General Education credit.)

Upper Division Writing Requirement. Each student must pass the University Writing Examination or complete one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 56 upper division units to include the following required and elective courses. Required upper division courses in the major: Electrical Engineering 300, 310, 330, 330L, 340, 371, 380, 410, 430, 430L, and 434. Upper division engineering elective: Three units selected from Civil Engineering 301 or Engineering Mechanics 340 or Mechanical Engineering 260 or Mechanical Engineering 352. Professional electives: Eighteen units selected from any upper division electrical engineering courses and approved upper division



courses from other departments. Electrical Engineering laboratory electives: Two units selected from any non-required upper division electrical engineering laboratory courses. Electrical Engineering capstone design elective: Three units selected from a list of design courses approved by the department.

Elective courses are subject to the approval of the faculty adviser and the department chair. The student must file an approved Master Plan during the first semester of the junior year specifying the electives selected. Changes in the Master Plan are permitted at any time, with approval of the department chair.

Courses

LOWER DIVISION COURSES

160. Computer Programming with C (3) I, II

Two lectures and three hours of laboratory.

Prerequisite: Credit or concurrent registration in Mathematics 150.

Proof of completion of prerequisite required: Copy of transcript.

Use of editors, compilers, and operating system services for file management and program development. Fundamentals of the C programming language. Problem solving with computers. Principles of program design and development.

203. Principles of Electrical Engineering (3) I, II

Prerequisites: Physics 196 and Mathematics 151 or 157. **Proof of completion of prerequisites required:** Copy of transcript.

Direct and alternating current analysis, phasor diagrams, single-phase and three-phase power, diodes, transistors, integrated circuits, transformers, motors, and generators. Not acceptable for electrical, aerospace, or civil engineering majors.

204. Principles of Electrical Engineering (3) I, II

Prerequisites: Mathematics 151 and Physics 196. **Proof of completion of prerequisites required:** Copy of transcript.

Circuit analysis, phasor diagrams, single-phase and three-phase power, semiconductor devices and applications, and energy conversion devices. Not acceptable for electrical or mechanical engineering majors.

210. Electrical Network Analysis I (3) I, II (CAN ENGR 12)

Prerequisites: Physics 196 and Mathematics 151. **Proof of completion of prerequisites required:** Copy of transcript.

Circuit analysis by reduction methods, source transformations, mesh and nodal analysis. Operational amplifier model, transient analysis, alternating current circuits, impedance, power, phasor diagrams, and three-phase balanced networks. Computer programming and application of computer software for circuit analysis.

270. Digital Systems (3) I, II

Prerequisite: Mathematics 151. **Proof of completion of prerequisite required:** Copy of transcript.

Modelling, analysis and design of digital systems, primarily at the Logic Design level. Combinational and sequential networks. Not open to students with credit in Electrical Engineering 370.

UPPER DIVISION COURSES (Intended for Undergraduates)

300. Computational and Statistical Methods for Electrical Engineers (3) I, II

Prerequisites: Electrical Engineering 160 and Mathematics 151. **Proof of completion of prerequisites required:** Copy of transcript.

Deterministic and statistical concepts and models in electrical engineering. Associated plotting and numerical techniques. Graphical representation of data and signal processing using computer-aided engineering tools.

303. Electronics, Instrumentation, and Electrical Energy Conversion (3) I, II

Prerequisite: Electrical Engineering 203 with minimum grade of C. **Proof of completion of prerequisite required:** Copy of transcript.

Theory and application of diodes and transistors in typical elec-

tronic circuits. Instrumentation and electronic measuring devices. Fundamentals of electro-mechanical energy conversion including motors and transformers. Not open to electrical engineering majors.

310. Electrical Network Analysis II (4) I, II

Three lectures and one hour of discussion.

Prerequisites: Electrical Engineering 160, 210 and Mathematics 252. **Proof of completion of prerequisites required:** Copy of transcript.

Mesh and nodal analysis using network equations, frequency and time response of networks, transient, state-space and computer-aided analyses of circuits; student participation and discussion in methods of solving electrical networks.

330. Fundamentals of Engineering Electronics (3) I, II

Prerequisite: Electrical Engineering 210. **Proof of completion of prerequisite required:** Copy of transcript.

Application of diodes-JFETs, MOSFETs, and BJTs—in typical electronic circuits. Analysis and design of rectifiers, filters, and simple amplifiers using transistors and operational amplifiers.

330L. Engineering Electronics Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Electrical Engineering 330. **Proof of completion of prerequisite required:** Copy of transcript or enrollment confirmation.

Experimental study of laboratory instruments, diodes, rectifier circuits, filters, transistors, and operational amplifiers.

340. Electric and Magnetic Fields (3) I, II

Prerequisite: Engineering 280. **Proof of completion of prerequisite required:** Copy of transcript.

Electrostatic and magnetostatic field theory using vector notation; Coulomb's Law, Gauss' Law and potential theory. Solutions to Poisson's and Laplace's equations; capacitance and inductance. Time-varying fields; Maxwell's equations.

371. Computer Organization (3) I, II

Prerequisites: Electrical Engineering 160 and 270. **Proof of completion of prerequisites required:** Copy of transcript.

Organization and operation of computer hardware and software. Operating system shell and services. Program design and development. Input-output programming. Multi-module and mixed-language programming. Assembler and C language.

373. Computer Design (3)

Prerequisite: Electrical Engineering 371. **Proof of completion of prerequisites required:** Copy of transcript.

Systematic techniques for designing digital computers and other complex digital systems. Machine arithmetic, Register Transfer Level design, hardwired and microprogrammed control units. Not open to students with credit in Electrical Engineering 573.

375. Microcontrollers (3)

Prerequisite: Electrical Engineering 371. **Proof of completion of prerequisite required:** Copy of transcript.

Operating characteristics of microcontrollers with real-time applications and program development.

380. Electrical Energy Conversion (3) I, II

Prerequisites: Electrical Engineering 160 and 210. **Proof of completion of prerequisites required:** Copy of transcript.

Magnetic circuits, transformers and polyphase AC networks. Fundamentals of electro-mechanical energy conversion; induction motors, synchronous machines and DC machines.

380L. Electrical Energy Conversion Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Electrical Engineering 380. **Proof of completion of prerequisite required:** Copy of transcript.

Experimental study of DC, single and polyphase AC circuits, transformers, and machines.

403. Biomedical Instrumentation (3)

Prerequisite: Electrical Engineering 303 or 330. **Proof of completion of prerequisite required:** Copy of transcript.

Instrumentation systems to monitor, control and record physiological functions.

410. Signals and Systems (3) I, II

Prerequisite: Electrical Engineering 310. **Proof of completion of prerequisite required:** Copy of transcript.

Linear time-invariant systems, Fourier analysis, continuous and discrete signals and systems, filtering, sampling, and z-transform techniques.

420. Control Systems Components (3)

Prerequisites: Electrical Engineering 310, 330 and 380. **Proof of completion of prerequisites required:** Copy of transcript.

Position transducers, phase-sensitive demodulators, static magnetic and rotating amplifiers, and servomotors. Derivation of component transfer functions.

430. Analysis and Design of Electronic Circuits (3) I, II

Prerequisites: Electrical Engineering 310, 330, and Engineering 280. **Proof of completion of prerequisites required:** Copy of transcript.

Single and multiple transistor amplifiers, power stages. Frequency response, feedback, stability, and operational amplifier circuits.

430L. Electronic Circuits Laboratory (1) I, II

Three hours of laboratory.

Prerequisites: Electrical Engineering 330L and 430. **Proof of completion of prerequisites required:** Copy of transcript.

Transistor dynamic characteristics; single stage and multistage amplifier circuits including feedback, tuned amplifiers, voltage regulators, active filters, and A/D-D/A converters.

434. Electronic Materials and Devices (3) I, II

Prerequisites: Electrical Engineering 330 and 340. **Proof of completion of prerequisites required:** Copy of transcript.

Crystal properties and growth of semiconductors, quantum mechanics of solids, shot noise and thermal noise, energy band and charge carriers, excess carrier in semiconductors, p-n junctions, solar cells, tunnel diodes, photodetectors.

440L. Physical Electronics Laboratory (1)

Prerequisites: Electrical Engineering 330 and 340. **Proof of completion of prerequisites required:** Copy of transcript.

Experimental study of electrical properties of semiconductors, light transmission in optical fibers, transmission and reflection of electromagnetic waves, laser oscillation and amplification, and gaseous electrical discharge.

450. Transmission Lines for High Speed Electronics and Microwaves (3)

Prerequisites: Electrical Engineering 330 and 340. **Proof of completion of prerequisites required:** Copy of transcript.

Theory and applications of transmission lines. Transmission-line equations and four transmission-line parameters, pulses on transmission lines, and impedance matching techniques, scattering matrix, microstrip line, coplanar waveguides, and various microwave transmission line components.

458. Communication Systems I (3)

Prerequisite: Credit or concurrent registration in Electrical Engineering 410. **Proof of completion of prerequisite required:** Copy of transcript or enrollment confirmation.

Analog and digital communication systems. Amplitude and frequency modulation, pulse modulation, and PCM. Introduction to information theory.

470. Digital Circuits (3) I

Prerequisite: Electrical Engineering 270. **Proof of completion of prerequisite required:** Copy of transcript.

Design of digital electronic systems using commercially available high-speed digital devices and circuits.

470L. Digital Logic Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Electrical Engineering 470. **Proof of completion of prerequisite required:** Copy of transcript.

Hands-on experience in characterization and application of standard digital integrated circuit devices.

475. Microprocessors (3) II

Prerequisites: Electrical Engineering 371 and 470. **Proof of completion of prerequisites required:** Copy of transcript.

Bus design, memory design, interrupt structure, input/output, and program development for microprocessor-based systems. Not open to students with credit in Electrical Engineering 575.

483. Power Distribution Systems (3) II

Prerequisite: Electrical Engineering 380. **Proof of completion of prerequisite required:** Copy of transcript.

Design and operation of electric power distribution systems. Design of primary and secondary systems, application of one phase and three phase transformer banks, and metering principles and practices.

496. Advanced Electrical Engineering Topics (1-3) I, II

Prerequisite: Consent of instructor.

Modern developments in electrical engineering. See Class Schedule for specific content. Maximum credit nine units for any combination of Electrical Engineering 496 and 596 applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Approval of project adviser and department chair. Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

502. Electronic Devices for Rehabilitation (3)

Two lectures and three hours of laboratory.

Prerequisite: Electrical Engineering 303 or 330. **Proof of completion of prerequisite required:** Copy of transcript.

Recent developments in electronic assistive devices and microcomputers for persons with various disabilities; assessment of disabled persons for suitable technological assistive devices.

520. Feedback Control Systems (3) I

Prerequisite: Electrical Engineering 410. Recommended: Electrical Engineering 420. **Proof of completion of prerequisite required:** Copy of transcript.

Analysis of regulatory systems including servomechanisms by the Laplace transform method. System performance and stability; Nyquist, Bode, and root-locus diagrams; elementary synthesis techniques. Practical components and examples of typical designs.

530. Analog Integrated Circuit Design (3) I, II

Prerequisite: Electrical Engineering 430. **Proof of completion of prerequisite required:** Copy of transcript.

Advanced treatment of transistor pairs, device mismatches, differential amplifiers, current mirrors, active loads, level shifting, and output stages. Parasitic and distributed device parameters. Economics of IC fabrication and impact on design.

534. Solid-State Devices (3)

Prerequisite: Electrical Engineering 430. **Proof of completion of prerequisite required:** Copy of transcript.

Conduction theory of solids. Characteristics of tunnel, backward, breakdown, multilayer and varactor diodes; silicon controlled rectifiers and switches, unijunction transistors, hot electron devices. Lasers and laser applications.

539. Instrumentation Circuits I (3)

Prerequisite: Electrical Engineering 430. **Proof of completion of prerequisite required:** Copy of transcript.

Design and analysis of hybrid analog/digital electronic sub-systems incorporated into modern instrument design. Emphasis on operational amplifier based circuit design and analog-to-digital and digital-to-analog conversion process.

540. Microwave Communications (3)

Prerequisite: Electrical Engineering 340. Recommended: Engineering 510. **Proof of completion of prerequisite required:** Copy of transcript.

Applications of Maxwell's equations to wave propagation; skin effect, circuit impedance elements; vector potential, and other time-varying electrical phenomena; waveguides and resonators, strip line circuits, electromagnetic radiation.

540L. Microwave Measurements Laboratory (1)

Three hours of laboratory.

Prerequisites: Credit or concurrent registration in Electrical Engineering 430L and 540. **Proof of completion of prerequisites required:** Copy of transcript or enrollment confirmation.

Experimental study of microwave generation including klystrons, Gunn and IMPATT oscillators, TWT and microwave transistor amplifiers. Microwave modulation and detection. Microwave transmission and antennas.

541. Electro-Optics (3) II

Prerequisite: Electrical Engineering 340. **Proof of completion of prerequisite required:** Copy of transcript.

Optical/electronic devices and systems; wave beams; light-matter quantum interactions; incoherent and laser light sources; modulators and detectors. Applications in data transmission, measurement, and materials processing.

546. Optical Fiber Communications Systems (3)

Prerequisite: Electrical Engineering 434. **Proof of completion of prerequisite required:** Copy of transcript.

Optical fiber attenuation and dispersion; light-emitting diodes and laser diodes, pin diodes and avalanche photodiodes, receiver designs, optical power budgets and rise time budgets, applications in digital and analog communication systems.

553. Stochastic Signals (3) I

Prerequisite: Electrical Engineering 410. **Proof of completion of prerequisite required:** Copy of transcript.

Random signals, correlation functions, power spectral densities, the Gaussian process, narrow band processes. Applications to communication systems.

554. Communication Principles and Circuits (3)

Prerequisite: Electrical Engineering 430. **Proof of completion of prerequisite required:** Copy of transcript.

Signal transmission in linear networks; modulators and detectors; wide-band and narrow-band amplifiers; oscillators; AM, FM, and phase modulation; transient response of amplifiers.

556. Digital Signal Processing (3)

Prerequisite: Electrical Engineering 410 or Physics 516A. **Proof of completion of prerequisite required:** Copy of transcript.

Digital signal processing. Discrete-time signals, transform techniques, and digital filters. Design of FIR and IIR filters, FFTs, and finite length effects on digital systems.

558. Communication Systems II (3) II

Prerequisite: Electrical Engineering 458. **Proof of completion of prerequisite required:** Copy of transcript.

Performance of analog and digital communication systems. Effects of noise and spectral characteristics.

558L. Communications and Digital Signal Processing Laboratory (1)

Prerequisite: Electrical Engineering 558. **Proof of completion of prerequisite required:** Copy of transcript.

Experiments in modulation techniques, effects of noise on system performance, digital filters, and signal processing. (Formerly numbered Electrical Engineering 554L.)

560. Computer and Data Networks (3)

Prerequisites: Electrical Engineering 371 and 410. **Proof of completion of prerequisite required:** Copy of transcript.

Wide area and local area networks. Multi-layered protocol models, telephone systems, modems, and network applications.

570. Advanced Digital Circuits (3)

Prerequisite: Electrical Engineering 470. **Proof of completion of prerequisite required:** Copy of transcript.

Digital applications of linear devices, the digital/analog interface, and ultra high speed logic devices.

572. VLSI Circuit Design (3) I

Prerequisites: Electrical Engineering 330 and 371. **Proof of completion of prerequisite required:** Copy of transcript.

Design of digital integrated circuits based on CMOS technology; characterization of field effect transistors, transistor level design and simulation of logic gates and subsystems; chip layout, design rules, introduction to processing; ALU architecture. (Formerly numbered Electrical Engineering 578.)

576. Microprocessor Systems Development (3)

Prerequisite: Electrical Engineering 371. **Proof of completion of prerequisite required:** Copy of transcript.

Design and development of software for real-time microprocessor-based systems using modern tools. In-circuit emulation. Multi-tasking and interrupt programming. Assembler and C-language.

580. Modern Power Systems I (3) I

Prerequisites: Engineering 280, Electrical Engineering 310 and 380. **Proof of completion of prerequisite required:** Copy of transcript.

Modern power system elements; calculation of load flow, fault currents, and system stability.

581. Modern Power Systems II (3) II

Prerequisite: Electrical Engineering 580. **Proof of completion of prerequisite required:** Copy of transcript.

Transient response of modern power system elements; positive, negative and zero sequence impedance; subharmonic effects.

582. Power Relay Systems (3) I

Prerequisite: Electrical Engineering 380. **Proof of completion of prerequisite required:** Copy of transcript.

Power relays including metering and control as used in modern power systems. Characteristics of operations and applications of equipment. Demonstrations on individual component relays. Basic relay calculations.

596. Advanced Electrical Engineering Topics (1-3) I, II

Prerequisite: Consent of instructor.

Modern developments in electrical engineering. See Class Schedule for specific content. Maximum credit of nine units for any combination of Electrical Engineering 496 and 596 applicable to a bachelor's degree. Maximum combined credit of six units of Electrical Engineering 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to the Graduate Bulletin.

OFFICE: Engineering 426

TELEPHONE: (619) 594-6061

The College of Engineering undergraduate programs in aerospace, civil, electrical, and mechanical engineering are accredited by the Accreditation Board for Engineering and Technology, Inc.

Faculty

Faculty assigned to teach courses in engineering are drawn from departments in the College of Engineering.

Minor in Engineering

The minor in engineering, intended for students in other academic areas of the university, consists of 15 units in engineering, 12 units of which must be in upper division courses. The courses must be approved by the Dean of the College of Engineering.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

120. Engineering Problem Analysis (2) I, II

One lecture and three hours of laboratory.

Prerequisite: Concurrent registration in Mathematics 150. **Proof of completion of prerequisite required:** Copy of transcript or enrollment verification.

Analysis of engineering problems and solutions using the digital computer. Fundamentals of programming and programming language commands.

140. Engineering Measurement Analysis (2) I, II

Prerequisite: Mathematics 140.

Methods of data presentation. Analysis and treatment of engineering data. Design of engineering experiments. Correlation and regression analysis. Practical applications are stressed. Students with credit or concurrent registration in the following lower division statistics courses will be awarded a total of four units for the two (or more) courses: Biology 215; Economics 201; Engineering 140; Mathematics 119, 250; Political Science 201; Psychology 270; and Sociology 201.

280. Methods of Analysis (3) I, II

Prerequisite: Mathematics 252 with minimum grade of C.

Selected topics from ordinary differential equations, the Laplace transform, Fourier series, and linear algebra, with engineering applications.

Engineering

In the College of Engineering

"It is not fair to ask of others what you are not willing to do yourself."

—Eleanor Roosevelt (1946)

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of six units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

**UPPER DIVISION COURSES
(Intended for Undergraduates)**

320. Control of the Human Environment (3) I, II

Prerequisites: Upper division standing and completion of six or more units of the General Education requirement in Foundations, II.A. Natural Sciences and Quantitative Reasoning.

Human interaction with the land, water and air environment; environmental pollution; role of engineering in controlling the environment. Not open to engineering majors. (Formerly numbered Engineering 150.)

430. Principles of Engineering Economy (3) I, II

Prerequisite: Mathematics 252.

Application of the mathematics of finance to engineering and managerial decision making.

496. Advanced Engineering Topics (1-3) I, II

Prerequisite: Minimum grade point average of 2.0 in engineering.

Modern developments in engineering. See Class Schedule for specific content. Maximum credit six units for any combination of 496, 499, and 596 applicable to a bachelor's degree.

**UPPER DIVISION COURSE
(Also Acceptable for Advanced Degrees)**

510. Methods of Analysis (3) I, II

Prerequisite: Engineering 280 with minimum grade of C.

Selected topics from vector calculus, partial differential equations, and complex analysis, with engineering applications.

**GRADUATE COURSE
Refer to the Graduate Bulletin.**

English

In the College of Arts and Letters

OFFICE: Adams Humanities 4158
TELEPHONE: (619) 594-5307

Faculty

Emeritus: Adams, Baker, Brashear, Brown, Burnett, Chater, Gross, Haskell, Ingham, Kohler, Monteverde, Neumeyer, O'Reilly, Perkins, Redding, M., Redding, R., Sanderlin, Sandstrom, Santangelo, Stiehl, Sullivan, Taylor, Tozer, Vanderbilt, Widmer

Chair: Wall

Professors: Alcosser, Benson, Borkat, Bumpus, Butler, Davis, Edson, Farber, Gellens, Gervais, Griswold, Henig, Jaffe, Kehler, Kuznets, McCaffery, Moramarco, Nelson, Polkinhorn, Rogers, Rother, Savvas, Sheres, Shojai, Wall

Associate Professors: Boe, Chin, Colquitt, Gregory, Hicks, Koolish, Neruccio, Scott, Wheeler

Assistant Professors: Allison, Robinett, Shumaker

Offered by the Department of English and Comparative Literature

Master of Arts degree in English.

Master of Fine Arts degree in creative writing.

Major in English with the B.A. degree in liberal arts and sciences.

Teaching major in English for single subject teaching credential.

Minor in English.

Certificate in children's literature.

The Major

The study of English today encompasses a wide range of materials and approaches to ways in which both students and established writers – past and present – may use language to express feelings, convey ideas, and give aesthetic pleasure. As one of the largest English Departments in California, SDSU can offer not only historical, analytical, sociopolitical and other approaches to literature and literary theory, but a variety of creative and expository writing classes as well.

English majors take fifteen units of lower division preparatory work designed to develop writing potential and analytical reading skills. More specialized upper division study focuses on particular areas: British literature before 1800; British literature after 1800; American literature; modern literature; literary types, theory, and criticism; creative writing; or expository writing.

Students going on to the single subject credential program in English can complete most of the credential requirements through courses taken in the major.

The English minor requires twelve units of upper division study that can be tailored to individual requirements. In addition the department offers certificates in Children's Literature.

Teaching is one of the many career opportunities available to English graduates; English studies are also good preparation for radio and television broadcasting, editing, writing, politics, film and library work, journalism, criticism, advertising, public information, public relations, and technical writing.

A study by the Modern Language Association, "English: The Pre-Professional Major," shows that training in English and literature is valuable preparation for futures in law, medicine, business and federal service.

The SDSU Placement Office has found that liberal arts graduates in general have profited both in terms of job availability and compensation in a recent shift from manufacturing to service in the United States economy.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

English Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15011)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in English and comparative literature courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Twelve units to include English 260A-260B (unless replaced by English 560A and 560B); three units selected from English 220, Comparative Literature 210, 270A, 270B, 296; and three units selected from English 250A, 250B, 280, 281, 296. Note: Students who replace English 260A and/or 260B with English 560A and/or 560B may take additional courses listed above to achieve the 12 units required.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. English 508W, 581W, or 584W*, or Rhetoric and Writing 500W, with a grade of C (2.0) or better.

Major. A minimum of 30 upper division units in English selected with the approval of the adviser, to include (a) English 533; (b) at least nine units in one of the areas of study listed below; and (c) at least three units in British Literature before 1800, three units in British literature after 1800, six units in American literature including at least one period course (period courses: English 522, 523, 524, 525; other American literature courses: English 519, 520, 526, 527, 528), three units in writing (English 508W, 580*, 581W*, 584W*, 589*, or Rhetoric and Writing 500W), and electives in English and Comparative Literature as needed to complete the 30 upper division units. The same course may be used to satisfy requirements under both (b) and (c).

Students who have not taken English 260A as part of the preparation for the major must take English 560A. Students who have not taken 260B must take 560B. English 560A or 560B may not be used to satisfy requirement (c) except as an elective. Six units of courses in comparative literature may be included as part of the major in English.

Areas of Study:

British Literature before 1800: English 530, 531, 534*, 536, 537, 538A, 538B, 540A, 541A, 541B.

British Literature after 1800: English 540B, 542, 543, 544, 547, 548.

American Literature: English 519, 520, 522, 523, 524 and 525.

Modern Literature: English 524, 525, 544, 547, 548, and Comparative Literature 445, 460, 514.

Literary Types, Theory, and Criticism: English 501, 502, 507, 508W, 527, 570, 571, 573, 577, 578, and Comparative Literature 561, 562, 563, 580, 582, 594, and 595.

* Additional prerequisites required.

Creative Writing: English 570, 571, 573, 576, 577, 579, 580*, 581W*, 583*, 584W*, 587*, 588*, and 589*.

Expository Writing: English 508W, 584W*, Rhetoric and Writing 500W, 503W, 504*, 509.

* Additional prerequisites required.

NOTE: In addition to the courses listed above, appropriate sections of English 496, 499, 526, 527, 528, 549, American Studies 580, and selected comparative literature courses may be used to satisfy the requirements for the major if approved by the departmental adviser.

Selection of Courses

Prospective majors of sophomore standing may, with the consent of the course instructor and subject to general university regulations (see "Credit for Upper Division Courses" in the section of this catalog on General Regulations), substitute six units of upper division electives for six units of lower division work. These courses must be in the same field as those which they replace, and must be approved by the departmental adviser.

Students of junior or senior standing may substitute for any deficiencies in lower division requirements in English (except English 100) an equivalent number of units of upper division courses selected with the approval of the departmental adviser.

Single Subject Teaching Credential in English

Those who have declared majors prior to January 1, 1995, and have taken any of the courses listed below may follow this program providing they complete it by December 31, 1997. All others must be advised by the department under a new program for the single subject credential.

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education.

The requirements for the Secondary Credential in English are as follows:

I. A major in English, comparative literature, or linguistics for the B.A. degree which includes a foreign language requirement and an upper division writing requirement. Students whose B.A. degree was awarded more than seven years before evaluation of transcripts for entrance into the credential program must take at least nine units of new coursework approved by the department adviser (including at least three units in literature and three units in composition) to ensure currency in the field. To be recommended for entrance into the credential program, such students must have a GPA of at least 3.0 in the new coursework.

II. Satisfactory completion of 39 units selected from courses in the following categories: (Many of these courses may also be used to satisfy requirements for the major.)

A. Courses in Literature (total 18 units)

NOTE: Must include at least one course in British literature and one course in American literature.

1. Lower division survey: 6 units.

(American, British, or World)

a. Particularly appropriate: English 250A, 250B, 260A, Comparative Literature 270A.

b. Appropriate: English 260B, Comparative Literature 270B. (English 560A-560B may be substituted for 260A-260B.)

2. Shakespeare: 3 units.

a. English 533.

3. Modern Literature: 3 units.

a. Particularly appropriate: English 524, 525, 547, 548, Comparative Literature 514, 526.

b. Appropriate: English 544, Comparative Literature 440, 445, 460.

c. The following courses are also applicable when the topic deals with the twentieth century: English 496, 526, 528, 549, Comparative Literature 490, 577, 596.

4. A Course in Ethnic Literature: 3 units.

English 519, 520, Africana Studies 460, 461, 462, 463, 464, American Indian Studies 430, Mexican American Studies 335, 464.

5. A Course in Genre, Myth, or Literature and Other Disciplines: 3 units.

a. Particularly appropriate: English 306A, 501, 502, 527, 540A, 540B, 541A, 541B, 570, 571, 573, 579, Comparative Literature 470, 561, 594, 595.

b. Appropriate: Comparative Literature 562, 563, 571.

c. The following courses are also applicable when the topic deals with a genre or literature and other disciplines: English 496, 549, Comparative Literature 490, 596.

B. Courses in Writing (total 9 units).

a. Rhetoric and Writing 509.

b. At least one upper division expository writing course: English 306W, 508W, or 584W* or Rhetoric and Writing 500W.

c. One course in creative writing: English 280, 281, 580*, 581W*, 583*, 587*, 588*.

C. Courses in Linguistics (total 9 units).

a. Particularly appropriate: Linguistics 410 (History of English), 420 (Linguistics and English) or 520 (Fundamentals of Linguistics), 524 (American Dialectology), 550 (Theory and Practice of English as a Second Language).

b. Appropriate: Linguistics 101 (Introduction to Language), 551 (Sociolinguistics), 552 (Psycholinguistics).

D. Speech (total 3 units).

Speech Communication 103 (Oral Communication), 105 (Introduction to Speech Communication), 491 (Group Communication).

* Additional prerequisites required.

Course Sequences

All year courses in English may be taken in either semester, and either semester may be taken singly for credit.

Student Initiated Courses

Students may petition for a course which falls within the competency of the English Department but which is not among the regular course offerings for the present or following semester. Petition forms may be obtained from the department secretary.

Undergraduate Seminars

Each semester, if adequate staffing permits, the department may offer several of its courses as special, limited-enrollment seminars. These seminars are designed to give English majors (or anyone who has the consent of the instructor) the opportunity as juniors and seniors to engage in advanced work in small discussion groups.

English Minor

The minor in English consists of a minimum of 15 units, 12 units of which must be in upper division courses. The department offers minors specifically tailored to complement students' majors. All minors will include English 220 (unless a substitution is approved by the departmental adviser) and 12 upper division units selected from one of the following areas, dependent upon the student's major:

Social Science disciplines, one course from each group:

1. A course in Shakespeare: English 302 or 533.
2. A course in expository writing: Rhetoric and Writing 500W or 503W.
3. A course in folk or popular literature: English 301, 405, 491, 501, 502, Comparative Literature 470, or approved sections of other special topics courses.
4. A course in contemporary literature: English 525, 548, or approved sections of special topics courses.

Fine Arts disciplines, one course from each group:

1. A course in Shakespeare: English 302 or 533.
2. A course in genre study or criticism: English 405, 501, 502, 507, 508W, 527, 570, 571, 573, 577, 579, Comparative Literature 561, 562, 563.
3. A course in literature and other arts: Rhetoric and Writing 493, Comparative Literature 594, 595, or approved sections of special topics courses.
4. A course in creative writing: English 580*, 581W*, 583*, 584W*, 587*, 588*, or approved sections of special topics courses.

Business disciplines, one course from each group:

1. A course in expository writing: Rhetoric and Writing 500W or 503W.
2. A course in Shakespeare, literature and psychology, or popular literature: English 301, 302, 491, 493, 494, 533.
3. A course in American literature: English 522, 523, 524, 525, or approved sections of 526 or 528.
4. A course in British literature: English 540A, 540B, 544, 547, 548, or approved sections of 549.

Humanities disciplines, one course from each group:

1. A course in Shakespeare: English 302 or 533.
2. A course in genre study or criticism: English 405, 501, 507, 508W, 527, 570*, 571*, 573*, 577*, 579*, Comparative Literature 561, 562, 563.
3. A course in literary history: English 560A, 560B, any course in the 520, 530, and 540 series, Comparative Literature 511, 512, 513, 514.
4. A second course in literary history or a course in literature and other disciplines, English 493, Comparative Literature 594, 595, or approved sections of special topics courses.

Science disciplines, one course from each group:

1. A course in technical writing: Rhetoric and Writing 503W*.
2. A course in Shakespeare or Bible as Literature: English 302, 405, 533.
3. A course in literature and psychology or popular literature or science fiction: English 301, 491, 493, 494, 501, 502, or approved sections of other special topics courses.
4. A course in literary history: English 560A, 560B, any course in the 520, 530, or 540 series, Comparative Literature 511, 512, 513, 514.

* Additional prerequisites required.

For students whose needs are not accommodated by any of the above patterns:

Students whose majors are not represented by the patterns above, students who wish to design a minor more directly tailored to their specific major, or students who otherwise feel they have special

needs are encouraged to consult with their advisers in both major and minor departments to design individualized minors in English. All such minors must have the written approval of both departmental advisers.

The English minor is not available to students majoring in comparative literature. Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Children's Literature Certificate

This certificate attests that the student has successfully completed 18 units (minimum GPA 3.0) of planned, advised, coherent, and articulated study in the field of literature for children. Prerequisites include admission to the University and to upper division or graduate standing. The Certificate in Children's Literature may be earned with a specialization either in Education or in English and Comparative Literature. Nine units in the certificate program may be counted toward the major in English, and six units may be counted toward the minor in English.

Specialization in Education. Nine units from courses in group A, six units from group B, and three units of an appropriate elective chosen with the approval of a faculty adviser.

Specialization in English and Comparative Literature. Nine units from courses in group B, six units from group A, and three units of an appropriate elective chosen with the approval of a faculty adviser.

Group A, Education: Educational Technology 596; Teacher Education 496**, 530, 531.

Group B, English and Comparative Literature: Comparative Literature 561 (when offered as European Children's Literature); English 496**, 501, 526**, 527**, 528**, 549**.

** With adviser's permission when the subject is closely related to children's literature.

Courses

LOWER DIVISION COURSES

220. Introduction to Literature (3) I, II

An inquiry into the basic nature of literature. What prompts humankind to the creation of imaginative literature? What purposes does literature serve in the cultural life of humanity? What are its social, philosophical, spiritual, and esthetic values? Some consideration may be given to techniques and major critical theories, but the focus will be on practical criticism for the nonspecialist. Specific works studied will be representative of several genres, cultures, and periods of literature.

250A-250B. American Literature (3-3) (250A: CAN ENGL 14)

American literature from the colonial period to the present. Semester I: from the beginning to the Civil War. Semester II: Civil War to the present. Recommended for English majors.

260A-260B. English Literature (3-3) I, II (260A: CAN ENGL 8) (260B: CAN ENGL 10)

English literature from the Anglo-Saxon period to the present, with emphasis on the major works in the literary tradition. Semester I: Ends with the neoclassical period. Semester II: Begins with the Romantic writers.

280. Introduction to Creative Writing (3) I, II

Prerequisite: Africana Studies 120 or Linguistics 100 or Mexican American Studies 111B or Rhetoric and Writing 100.

Theory and practice of poetry and fiction, with emphasis on basic concepts and techniques. A research paper on a writer, a technique, a period, or a genre required.

281. Creative Writing: Selected Genres (3)

Prerequisite: Rhetoric and Writing 100. Guidance and extensive practice in writing in one or more of the major genres: poetry, drama, fiction, or the essay. See Class Schedule for specific content.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

301. The Psychological Novel (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Psychological novel from its inception to present, including major works from a variety of cultures. Readings designed to aid students in discovering insights which great novelists have unearthed in their explorations of the human psyche.

302. Introducing Shakespeare (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Representative tragedies, comedies, and histories. Primarily for the general student not specializing in English or comparative literature. This course does not count toward the English or comparative literature majors. Majors are required to take English 533.

306A-306W. Children's Literature and Advanced Composition (3-3) I, II

Prerequisites: Rhetoric and Writing 200. English 306A and 306W must be taken concurrently. Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

306A: Reading, analysis, and discussion of classic works of children's literature.

306W: Advanced composition; improvement of student skills through writing assignments based upon reading and work in the lecture part. Primarily designed to meet Upper Division Writing and Literature requirements for Liberal Studies-Emphasis in Education, but also open to students with other majors.

405. The Bible as Literature (3) I, II

(Same course as Comparative Literature 405.)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Prose and poetry of the King James version.

491. Contemporary Topics in Literature (3)

Exploration of writers, works and topics in fiction, poetry, drama, and film, emphasizing the relationship between literature and current concerns. Topics include the city in fiction and film, literature and identity, literature of death, literature of contemporary myth and folklore, women in literature. Primarily for the general student not specializing in English or comparative literature. May count only as an elective course toward the English major. May be repeated with new title and content. Maximum credit six units. See Class Schedule for specific content.

493. Literature and Film (3)

Relationships between film and genres of literature, focusing on a critical comparison of the techniques of rhetoric, fiction, and drama and those of film. Topics include literature and film, novel into film, drama and film, reading film. Primarily for the general student not specializing in English or comparative literature. May count only as an elective course toward the English major. May be repeated with new title and content. Maximum credit six units.

494. Modern American Fiction (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Representative works by twentieth century American authors such as Cather, Hemingway, Steinbeck, Faulkner, Fitzgerald, Ellison, Welty, Bellow, Vonnegut, Heller, Walker, others. Primarily for the general student not specializing in English or comparative literature. May count toward the English major only as an elective.

496. Selected Topics in English (1-4)

Specialized study of a selected topic in literature. May be repeated with new title and content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

499. Special Study (1-3) I, II

Prerequisites: Consent of instructor and approval of department chair.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

Prerequisite for all 500-level courses: Six lower division units in courses in literature and/or creative writing.

501. Literature for Children (3) I, II

Critical analysis of literature intended for children. Study of texts and illustrations.

502. Adolescence in Literature (3)

Prerequisite: Six units in literature.

Works centrally concerned with an adolescent protagonist. Includes both traditional novels of development (Bildungsroman) and contemporary young adult novels.

507. The History of Literary Criticism (3)

Principles and practices of literary criticism from Greek times to the twentieth century.

508W. The Writing of Criticism (3) I, II

Prerequisites: Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Theory and practice of literary criticism. Emphasis on the work of important critics and on development of student's own critical writing.

510. Teaching Literature (3)

Prerequisite: Six units in 500-level literature courses.

Theory and practice of teaching literature in high schools, colleges, and universities; various critical approaches (such as feminist, new historical deconstruction, reader response) to literature and their implications for teaching and developing teaching styles.

519. American Ethnic Literatures (3)

Prerequisite: Six units in literature.

Works from American ethnic literatures, with emphasis on formerly excluded traditions as African-American, Hispanic and Chicano, Asian-American, and American Indian.

520. African-American Literary Tradition (3)

Prerequisite: Six units in literature.

African-American literature from its eighteenth century beginnings to the present. Early political and social concerns and concomitant utilitarian forms; aesthetic concerns and forms in nineteenth and twentieth centuries.

522. American Literature, 1800-1860 (3)

Representative works by American writers from 1800 to 1860; likely to include works by Emerson, Hawthorne, Melville, Poe, H.B. Stowe, Thoreau, Whitman, others.

523. American Literature, 1860-1920 (3)

Representative works by American writers from 1860 to 1920; likely to include works by Charles Chesnut, Kate Chopin, Stephen Crane, Emily Dickinson, Henry James, Mark Twain, Edith Wharton, others.

524. American Literature, 1920-1950 (3) I, II

Representative works by American writers from 1920 to 1950; likely to include works by Willa Cather, T.S. Eliot, William Faulkner, F. Scott Fitzgerald, Ernest Hemingway, Zora Neale Hurston, Eugene O'Neill, K.A. Porter, Ezra Pound, John Steinbeck, others.

525. American Literature, 1950 to Present (3) I, II

American writers from 1950 to the present; likely to include works by Edward Albee, Saul Bellow, Allen Ginsberg, Joseph Heller, Maxine Hong Kingston, Norman Mailer, Toni Morrison, Sylvia Plath, Adrienne Rich, Kurt Vonnegut, Eudora Welty, others.

526. Topics in American Literature (3)

Topics in American literature to include the literature of the south, Black writers in America, the frontier and American literature, the outcast in American literature, the immigrant experience in American Literature. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

527. Genre Studies in American Literature (3)

Study of a specific literary genre: overview of the genre's development in American literature (the American novel, the American short story, American poetry) or focus on a narrower period (the modern American novel, the contemporary American novel, American autobiographies, others). May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

528. Individual American Authors (3)

Works of a major American author or, if useful comparisons and juxtapositions warrant it, the works of two or three authors: Melville, Twain, James, Faulkner, Steinbeck, Nabokov, Morrison; or Pound and Eliot, Emerson and Thoreau, Vonnegut and Barth, Rich and Levertov, others. See Class Schedule for specific content. May be repeated with new title and content. Maximum credit six units.

530. Chaucer (3)

Chaucer's works, with emphasis on *The Canterbury Tales* and *Troilus and Criseyde*.

531. Renaissance Literature (3)

English poetry and prose from 1485 to 1603.

533. Shakespeare (3) I, II

An introduction to the writings of Shakespeare. This course cannot be used in place of English 302 to satisfy General Education requirements.

534. Study of Shakespeare (3)

Prerequisite: English 533.

Advanced study of Shakespeare's achievement as a poet and playwright.

536. Seventeenth Century Literature (3)

English poetry and prose from 1603 to 1660.

537. Milton (3)

Milton's writings, with emphasis on *Paradise Lost*.

538A-538B. Restoration and Eighteenth Century Literature (3-3)

English literature in the neoclassical era. Semester I: Dryden, Swift, Pope, and their contemporaries. Semester II: Writers of the middle and late eighteenth century.

540A-540B. English Fiction (3-3)

The development of English fiction from its beginnings to the end of the nineteenth century. Semester I: The eighteenth century. Semester II: The nineteenth century.

541A-541B. English Drama (3-3)

English dramatic literature from its beginnings to the nineteenth century. Semester I: The period from the beginning to 1642. Semester II: The period following reopening of the theatres in 1660.

542. Romantic Literature (3)

Representative British works from the 1790s to the 1830s by such writers as Wollstonecraft, Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, Austen, and Scott.

543. Victorian Literature (3)

Representative British works from 1837 to 1890 by such writers as Carlyle, Tennyson, Ruskin, Browning, Dickens, Arnold, Eliot, and Pater.

544. British Literature, 1890-1918 (3)

Representative British works from 1890 to 1918 by such writers as Hardy, Gissing, Shaw, Conrad, Yeats, Wells, Forster, Mansfield, and the World War I poets.

547. British Literature, 1918-1950 (3)

Representative British works from 1918 to 1950 by such writers as Joyce, Woolf, Lawrence, T.S. Eliot, Mansfield, Huxley, Bowen, Greene, Auden, Orwell, and Thomas.

548. British Literature, 1950 to Present (3)

Representative British works from 1950 to the present by such writers as Golding, Amis, Murdoch, Lessing, Pinter, Hughes, Fowles, Stoppard, Drabble, and Ishiguro.

549. Topics in English Literature (3)

The works of Spenser, the metaphysical school of poetry, the English satirists, major movements in contemporary English fiction, and the like. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

560A. British Literature, Beginnings Through the Eighteenth Century (3) I, II

Survey of major British writers, with emphasis on reading of complete works. From the beginnings to the neoclassical period. Especially appropriate for those who will teach British literature, and for those proceeding on to graduate study. Not open to students with credit in English 260A.

560B. British Literature, Romanticism to the Present (3) I, II

Survey of major British writers, with emphasis on reading of complete works. Begins with the Romantic writers. Especially appropriate for those who will teach British literature, and for those proceeding on to graduate study. Not open to students with credit in English 260B.

570. Techniques of Poetry (3)

Prerequisite: English 280.

Techniques of poetry from the creative writer's point of view. Introduction to critical and theoretical literature on poetry. Includes a creative writing workshop.

571. Techniques of the Short Story (3)

Prerequisite: English 280.

Techniques of the short story from the writer's point of view. Introduction to critical and theoretical literature on the short story. Includes a creative writing workshop.

573. Techniques of the Novel (3)

Prerequisite: English 280.

Techniques of the novel from the writer's point of view. Introduction to critical and theoretical literature on the novel. Includes a creative writing workshop.

576. Literary Editing and Publishing (3)

Prerequisite: English 280.

Principles and practices of editing and literary publishing. Workshop on small press publishing. Includes editing and publishing workshop.

577. Techniques of Screenwriting (3)

Prerequisite: English 280 or Telecommunications and Film 110 or 410 for telecommunications and film majors.

Techniques of screenwriting. Introduction to critical and theoretical literature on screenwriting. Includes a creative writing workshop.

579. Topics in Creative Writing (3)

Prerequisite: English 280.

Techniques of creative writing focusing on a specialized genre such as comedy, science fiction, and biography. Study of the critical and theoretical literature on the genre. Includes a creative writing workshop. See Class Schedule for specific content. Maximum credit six units.

580. Writing of Poetry (3) I, II

Prerequisite: English 570.

A creative writing workshop in poetry. Continuation of English 570. Maximum credit six units.

581W. Writing of Fiction (3) I, II

Prerequisites: English 280. Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

A creative writing workshop in fiction. Continuation of English 571. Maximum credit six units.

583. Writing Long Narrative (3)

Prerequisite: English 573.

A creative writing workshop in long narrative, especially the novella or novel. Continuation of English 573. Maximum credit six units.

584W. Writing Informal Essays (3) I, II

Prerequisites: English 280. Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

A creative writing workshop in nonfiction, especially the essay as an art form. Maximum credit six units.

587. Writing the Screenplay (3)

Prerequisite: English 577 or Telecommunications and Film 110 or 410 for telecommunications and film majors.

A creative writing workshop in screenwriting with emphasis on the feature film. Continuation of English 577. Includes playwriting and revising a television script or short film. Maximum credit six units.

588. Playwriting: The One-Act Play (3)

Prerequisite: Any course in the English 570 series or Drama 325.

A creative writing workshop in planning, writing, and revising a one-act play. Selected plays will be submitted to the Department of Drama for possible production in the One-Act Program. May be repeated with new content. Maximum credit six units.

589. Senior Workshop in Creative Writing (3)

Prerequisites: Three units from English 570, 571, 573, or 579; six units from English 580, 581W, 583, 584W, 587, or 588.

Advanced workshop for students who have extensive background in creative writing and who wish to prepare a senior project in poetry writing, fiction writing, or other special topics. See Class Schedule for specific content. Maximum credit six units. Not applicable to a master's degree.

596. Selected Topics in English (1-3)

Selected topics in English. May be repeated with new content and approval of instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's or master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

Comparative Literature

(See this section of catalog under Comparative Literature.)

GRADUATE COURSES

Refer to the Graduate Bulletin.

European Studies

Refer to "Humanities" in this section of the catalog.

Finance

In the College of Business Administration

A Member of the American Assembly of Collegiate Schools of Business.

The Personal Financial Planning Certificate is registered with International Board of Certified Financial Planners.

Faculty

Emeritus: Fisher, Hippaka, Hungate, Reints, Schmier
Chair: Varaiya
Professors: Gitman, Haddad, Hutchins, Nye, Ormberg, Salehizadeh, Short, Sterk, Vandenberg, Varaiya, Warschauer
Associate Professors: Block, Bost, Cherin, Do, Ely, Houston, Sachdeva, Song, Wilbur (Associate Dean and Director, Undergraduate Program)

Offered by the Department

Master of Science degree in business administration.
Master of Business Administration.
Major in finance with the B.S. degree in business administration.
Major in financial services with the B.S. degree in business administration.
Major in real estate with the B.S. degree in business administration.
Teaching major in business for the single subject teaching credential.
Minor in finance.
Minor in real estate.
Certificate in personal financial planning.

Admission to the Major

The undergraduate business administration program at San Diego State University is structured such that students desiring a business administration major are first admitted to the prebusiness administration major for their first two years of university work. During these first two years students should complete general education courses and a common core of nine lower division preparation for the business major courses - Accountancy 201, Financial Accounting Fundamentals; 202, Managerial Accounting Fundamentals; Finance 140, Legal Environment of Business; Economics 101, Principles of Economics (Macro); Economics 102, Principles of Economics (Micro); Information and Decision Systems 180, Principles of Information Systems; Information and Decision Systems 290, Business Communication (not required for accounting majors); Mathematics 119, Elementary Statistics for Business; and Mathematics 120, Calculus for Business Analysis. These prerequisite courses may not be taken Cr/NC; the minimum grade in each class is C. All students must achieve a passing score on a quantitative competency examination. Students must have completed 56 college units.

Supplemental admissions criteria must be met before students may declare an upper division major and be eligible for upper division courses. For current information concerning admissions criteria and procedures, contact the Undergraduate Business Advising Office in the College of Business Administration.

Also, before enrolling in upper division courses offered by the College of Business Administration, students must be competent in the operation of personal computers, including word processing and spreadsheets. These skills are required in upper division business courses.

Business administration majors may not complete a minor in the College of Business Administration.

OFFICE: Student Services 3356
TELEPHONE: (619) 594-5323

Transfer Credit

Lower Division: Courses clearly equivalent in scope and content to San Diego State University courses required for minors or as preparation for all business majors will be accepted from regionally accredited United States institutions and from foreign institutions recognized by San Diego State University and the College of Business Administration.

Upper Division: It is the policy of the San Diego State University College of Business Administration to accept *upper division transfer credits* where (a) the course content, requirements, and level are equivalent to San Diego State University courses and (b) where the course was taught in an American Assembly of Collegiate Schools of Business accredited program. Exceptions require thorough documentation evidencing the above standards.

The Majors

The Finance Department offers three majors: Finance, Financial Services, and Real Estate. The finance major is broadest and may include courses in all areas.

Finance. All forms of human endeavor involve finance to some degree. Within our economic system, finance is concerned with capital, which is money or property owned or used in business. Finance majors study both the sources and the uses of capital. The finance curriculum revolves around the valuation process in a free market system. Once an individual or company can value various alternatives, the allocation of resources and the decision process in business becomes much simpler.

Students who are interested in business should have a thorough understanding of the financial process. Upon graduation, students accept a wide variety of positions with business in general. The curriculum of the finance major is designed to give the student breadth in a variety of fields in addition to finance and business.

Employment prospects for graduates with finance majors are very good and forecasts remain encouraging. Graduates are typically found in six types of employment: large and small industrial firms (manufacturers of automobiles, steel, household appliances, and electronic equipment); service oriented firms (electric power, real estate and retail firms); financial institutions (banks, state and federally chartered savings and loan associations, and insurance companies); nonprofit enterprises (universities, labor unions, and foundations); and private businesses.

The diversity of entry level positions obtained by finance majors makes it difficult to describe a typical position. A major in finance does not limit career potential to banking or to any single area of business. A large number of individuals go to work for industrial companies in a variety of entry level positions that allow them to develop into top decision-making positions with those companies. A significant number of chief executive officers and other top officers of corporations have followed the "finance path" to the top.

Financial Services. Although the financial services major is based on many of the same analytical skills and theoretical foundations as the finance major, it is designed specifically to prepare students for careers in one of the segments of the financial services industry: securities, banking, insurance, real estate finance and personal financial planning. It is very common for single firms to own subsidiaries in each of these areas. So it is important for graduates entering these fields to be familiar with all aspects of these important financial sectors.

Graduates can look forward to analytical, managerial or sales careers in the financial services industry. Sales careers include insurance and securities sales. Analytical careers include loan and security analysis and personal financial planning. Managerial careers include management in each of the component industries.

Real Estate. The major objective of the real estate program at SDSU is to prepare its graduates as well-rounded professionals with a specialty in the multifaceted field of real estate and land market analysis. The changing nature of today's real estate market requires that graduates from university real estate programs receive a complete and broad approach to this field. Graduates with a major in real estate should be capable of making a wide variety of management decisions concerning real estate and related land resources. This includes the ability to utilize new economic concepts, understand changing social concerns, and apply up-to-date analytical tools such as computers to the process of real estate decision making. SDSU's program in real estate provides students with analytical skills, technical competence to perform market analyses, and a better understanding of the tools necessary to perform in today's complex real estate and land markets. This is in addition to the conventional knowledge required for a license. It is the goal of the real estate program at SDSU to provide a high level of education, and thus prepare its graduates for job opportunities in a variety of organizations, large and small, public and private.

With more than two billion acres of land in the United States, important public and private decisions must be made every day about the use, management, and disposition of this vast real estate acreage. This means job opportunities for the real estate major are created in a variety of areas such as valuation, development, financing, brokerage, market analysis, and public regulation. Job opportunities in real estate may also exist even in times of economic uncertainty. For example, during recent times many enterprises, large and small, have turned their attention to maximizing returns generated by their often extensive real estate holdings. This has created a demand for a new real estate expert—one who can manage asset disposition, value existing properties, upgrade underutilized property, and negotiate lease terms and conditions. In addition, the changing nature of the financial environment in which real estate markets must operate has created a demand for people not only with basic real estate training, but also with good general business and financial skills. SDSU's real estate program recognizes this changing real estate environment and prepares its majors for these diverse opportunities.

Retention Policy

The College of Business Administration is concerned that each individual upper division student makes reasonable academic progress toward earning a degree. To this end, the College will counsel students who have earned less than a "C" (2.0) average each semester. Further, such students will be warned that continued poor performance may result in their removal from any business major.

Finance Major

With the B.S. Degree in Business Administration
(Major Code: 05041)

Preparation for the Major. Finance 140; Accountancy 201, 202; Economics 101, 102; Information and Decision Systems 180, 290; Mathematics 120 or 150; and Economics 201 or Mathematics 119. (27-30 units)

These prerequisite courses may not be taken Cr/NC; the minimum grade in each class is C. **Additional progress requirements must be met before a student is admitted to an upper division major.**

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. Fifty upper division units to include Finance 321, 323, 325, 327, 423; Accountancy 325, 326; Economics 490; Information and Decision Systems 302; Management 350; Management 405 or Information and Decision Systems 404; Marketing 370; six units selected

from Finance 326, 329, 421, 425; and six units selected from Finance 331, 431, 435, 445, 589, or Finance 326, 329, 421, 425 if not used to meet the above requirement.

A minimum of 52 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration and economics. A maximum of six lower division units of accountancy courses may be used to satisfy degree requirements. Of the 128 units required for the degree, at least 60 units must be at the upper division level. A "C" average is required in the courses stipulated here for the major.

Financial Services Major

With the B.S. Degree in Business Administration
(Major Code: 05043)

Preparation for the Major. Accountancy 201 and 202; Economics 101 and 102; Economics 201 or Mathematics 119; Finance 140; Information and Decision Systems 180 and 290; Mathematics 120 or 150. (27-30 units)

These prerequisite courses may not be taken Cr/NC; the minimum grade in each class is C. **Additional progress requirements must be met before a student is admitted to an upper division major.**

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. Forty-one upper division units consisting of Finance 323, 326, 327, 331, 521, 589; Accountancy 404; Information and Decision Systems 302; Management 350; Management 405 or Information and Decision Systems 404; Marketing 370; six units selected from Finance 421, 425, 431, 435*, 445; Accountancy 326, 504; Economics 320 or 422, 490; and Marketing 377.

A minimum of 52 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration and economics. A maximum of six lower division units of accountancy courses may be used to satisfy degree requirements. Of the 128 units required for the degree, at least 60 units must be at the upper division level. A "C" average is required in the courses stipulated here for the major.

* Prerequisite waived for this course.

Real Estate Major

With the B.S. Degree in Business Administration
(Major Code: 05111)

Preparation for the Major. Accountancy 201 and 202; Finance 140; Information and Decision Systems 180, 290; Economics 101 and 102; Economics 201 or Mathematics 119; and Mathematics 120 or 150. (27-30 units)

These prerequisite courses may not be taken Cr/NC; the minimum grade in each class is C. **Additional progress requirements must be met before a student is admitted to an upper division major.**

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. Thirty-nine to forty upper division units consisting of Finance 323, 331, 335, 433, 435; Information and Decision Systems 302; Management 350; Management 405 or Information and Decision Systems 404; Marketing 370; Public Administration 320; and 9-10 units selected from Accountancy 404; Finance 333, 340, 431; Marketing 373; Economics 422, 490; Geography 354, 559.

A minimum of 52 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration and economics. A maximum of six lower division units of accountancy courses may be used to satisfy degree requirements. Of the 128 units required for the degree, at least 60 units must be at the upper division level. A "C" average is required in the courses stipulated here for the major.

Business Major

For the Single Subject Teaching Credential With the B.S. Degree in Business Administration

All candidates for the single subject teaching credential in business must complete all requirements for the applicable specialization as outlined in this section of the catalog under Policy Studies or Teacher Education. Students must complete the requirements of a major in one of the five departments within the College of Business Administration. In consultation with the single subject credential adviser in the College of Business Administration, undergraduate students must develop programs which fulfill the State credential requirements. All undergraduate majors must demonstrate office skills proficiency. Finance 589, Personal Financial Planning, is required of all teaching credential majors. Of the 128 units required for the degree, at least 60 units must be at the upper division level.

Student program must be approved in advance by the College of Business Administration single subject credential adviser.

Finance Minor

The minor in finance consists of a minimum of 21 units to include Accountancy 201; Finance 321, 323, 326, 327, and 329; Mathematics 119.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University. Students with a major in the College of Business Administration may not complete a minor in the College of Business Administration. Additional requirements must be met before the student may obtain permission to declare a business minor. See an adviser in the Business Advising Center for more information.

Real Estate Minor

The minor in real estate consists of a minimum of 18 units to include Economics 102; Finance 140, 331, 335, 433; and three units selected from Finance 333, 431, and 435.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University. Students with a major in the College of Business Administration may not complete a minor in the College of Business Administration. Additional requirements must be met before the student may obtain permission to declare a business minor. See an adviser in the Business Advising Center for more information.

Personal Financial Planning Certificate

The purpose of this program is to provide a strong educational basis for persons desiring careers in the field of personal financial planning. Two categories of students are admitted: Matriculated students who have been admitted to an upper division College of Business Administration major and nonmatriculated students who work in the financial services industry may take the courses on a space-available basis.

This certificate is a program registered with the International Board of Certified Financial Planners.

Prerequisites to the program include Finance 140; Accountancy 201; Economics 101, 102; and Mathematics 119. (15 units.)

The certificate requires 23 units to include Accountancy 404, Finance 323, 327, 421, 445, 521, and 589.

Advising is provided by the Undergraduate Business Advising office in the College of Business Administration. All course units may be used for business majors where programmatically specified. Courses in the certificate may not be counted toward the minor.

Courses

LOWER DIVISION COURSE

140. Legal Environment of Business (3) I, II

Business legal system, sources of law, social and ethical influences, judicial and administrative systems, contracts, torts, bankruptcy, agency, business organizations, securities regulation, regulation of property, and protection of intellectual property interests.

UPPER DIVISION COURSES (Intended for Undergraduates)

317. Individual Investing (3)

Prerequisite: Upper division standing.

Investment alternatives. Financial institutions related to individual investing. Consumer protection and investing. Tax considerations. Building portfolios. Not open to business majors.

321. Managerial Economics (3) I, II

Prerequisite: Completion of lower division course requirements in major or minor.

Role of economic analysis in management decisions. Study of demand, cost, supply theories from a business viewpoint. Emphasis on managerial decision making.

323. Fundamentals of Finance (3) I, II

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration. **Proof of completion of prerequisite required:** Change of major form or other evidence of acceptable major code.

Objectives of financial management. Financing the business enterprise. Internal financial management. Introduction to the cost of capital, valuation, dividend policy, leverage, international finance, and the techniques of present value and its applications. Sources of capital.

325. Intermediate Finance (4) I, II

Prerequisite: Finance 323 with minimum grade of C.

Capital expenditure decision process. Measuring and evaluating benefits and costs. Cost of capital and the evaluation process. Capital rationing problems. Risk and uncertainty in decision process. Agency theory, option pricing, and arbitrage pricing in decision process.

326. Financial Institutions Management (3)

Prerequisite: Finance 323 with minimum grade of C.

Management of financial institutions including savings and loan associations, mutual savings banks, credit unions, private pension plans, brokerage houses, investment companies, consumer credit institutions, federal credit agencies, and commercial banks. Emphasis on internal financial management of these institutions.

327. Investments (3) I, II

Prerequisite: Finance 323.

Measures of risk and return. Methods of security analysis, valuation, and capital asset pricing model. Portfolio theory and management; stocks, bonds, options, and futures; hedging; mutual funds and partnerships; and investment taxation.

329. International Business Finance (3) I, II

Prerequisite: Finance 323.

Foreign exchange markets and instruments; international financial institutions; trade and balance of payments; exchange rate behavior and currency-risk hedging; cross-border investment; applications to management of international business.

331. Real Estate Essentials (3) I, II

Prerequisite: Completion of lower division course requirements in business major or minor.

Fundamental operations of the real estate market; principles of real property valuation, financing, law, investment, brokerage, management, and development.

333. Law of Real Property (3) II

Prerequisite: Finance 331.

Legal theory and practice of estates in land; landlord and tenant relationships; land transactions; mortgages and trust deeds; easements; land use; ownership rights in land; environmental law.

335. Land Markets and Real Estate Analysis (3) I, II

Prerequisite: Finance 331.

Theory and analysis of land utilization. Location analysis and determinants of land use patterns. Real estate market behavior and economic growth. Basic real estate investment analysis. Public controls and policies affecting land markets.

340. Advanced Business Law (3)

Prerequisites: Finance 140, approved upper division business major, business minor, or other approved major.

Law of contracts, sales, commercial paper, secured transactions, bankruptcy, suretyship, agency, organizations, property, insurance, trusts and estates, securities regulations, and professional liability.

421. Portfolio Management and Security Analysis (3)

Prerequisite: Finance 327.

Market efficiency. Risk and utility analysis. Portfolio theory. Security analysis under modern investment theory. Advanced debt management and options techniques. Financial options and futures. Asset allocation and performance evaluation. Limited partnership investment analysis.

423. Financial Analysis and Management (4) I, II

Prerequisites: Finance 321 and 325. Strongly recommended: Accountancy 326.

Integration of various aspects of finance, application of financial theory. Financial decision making in the firm. Case study.

425. Business Forecasting (3)

Prerequisite: Finance 323.

Business fluctuations; forecasting, and related problems confronting the business firm; forecasting techniques; specific forecasts. The use of forecasts in the firm.

431. Real Estate Finance (3) I

Prerequisite: Finance 331.

Methods of financing real estate; sources of funds; governmental financial agencies; feasibility analysis for various types of properties.

433. Theory of Real Property Value (3) I

Prerequisite: Finance 335.

Introduction to theories of real property value. Techniques of value determination. Data analysis techniques.

435. Real Estate Investment Analysis (3) I, II

Prerequisites: Finance 323 and 433.

Theories and methods of investment analysis applied to real estate. Integration of various aspects of real estate from the investors perspective. Use of computer models for investment decision making.

445. Estate Planning (3) II

Prerequisite: Finance 323.

Fundamentals of estate planning, social and family implications of federal/state taxation of transfers of wealth by gift or at death. Study of trusts, conservatorships, guardianship and postmortem planning. How planning is affected by business assets, employee benefits, and insurance.

496. Selected Topics in Finance (1-4)

Prerequisite: Consent of department chair.

Selected areas of concern in finance. See Class Schedule for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

498. Investigation and Report (1-3) I, II

Prerequisites: Senior standing and consent of instructor.

A comprehensive and original study of a problem connected with finance under the direction of one or more members of the finance staff. May be repeated with new content. Maximum credit six units.

499. Special Study (1-3)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

521. Individual Insurance Management (4) II

Prerequisites: Undergraduate: Completion of lower division requirements for the major. Graduate: Completion of prerequisite core.

Economic, legal, social and ethical considerations of individual, business and group insurance including life, health, property, liability and social insurance. Risk exposure and policy analysis. Employee benefit and pension planning including regulation and taxation issues. Not open to students with credit in Finance 525.

589. Personal Financial Planning (3) I

Prerequisite: Finance 323.

Financial planning process including data gathering, cash flow and debt considerations, goal programming (including retirement and education funding), integration, plan formulation, and implementation. Practice management considerations including establishment of ethical and legal, client and professional relationships. Not open to students with credit in Finance 525.

GRADUATE COURSES Refer to the Graduate Bulletin.

French

In the College of Arts and Letters

Faculty

Emeritus: Ghilbert, Glasgow, Jackson, Max, Messier, Nelson
Chair: Benkov
Professors: Benkov, Branam, Cox, Edson, Schorr
Associate Professors: Cornwell, Palmer

Offered by the Department of French and Italian Languages and Literatures

Master of Arts degree in French.
Major in French with the B.A. degree in liberal arts and sciences.
Teaching major in French for the single subject teaching credential in foreign languages.
Minor in French.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

French Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 11021)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in French courses can apply to the degree.

Students majoring in French must complete a minor in another field to be approved by the departmental adviser in French.

Preparation for the Major. French 100A, 100B, 200A, either 200B or 200E, 200C, and 200D. (22 units)

Recommended: History 105, 106.

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in French to include French 301, 302, 305A, 305B, and 15 additional units of upper division courses, to include one course at the 500-level to be taught in the language.

French Major

For the Single Subject Teaching Credential in Foreign Languages
With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 11021)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education. For students completing the single subject teaching credential program, no more than 52 units in French courses can apply to the degree.

This major may be used by students in policy studies or teacher education as an undergraduate major for the B.A. degree in liberal arts and sciences. A minor in another field approved by the departmental adviser in French is required for the degree.

OFFICE: Business Administration 304
TELEPHONE: (619) 594-6491

To be recommended for student teaching, students must demonstrate proficiency in French by passing the departmental written and oral tests.

Preparation for the Major. French 100A, 100B, 200A, either 200B or 200E, 200C, 200D. (22 units)

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 30 upper division units in French to include French 301, 302, 304, 305A, 305B, 421, 422, 501, 560 and 561.

French Minor

The minor in French consists of a minimum of 15 units in French, nine units of which must be in upper division courses, with a minimum of six upper division units completed at San Diego State University.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable.

Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of French to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete French 200A or 200B or 200C or 200D or 200E or the equivalent level of achievement. The usual sequence of coursework is French 100A, 100B, 200A and 200B or 200E; and 200C, 200D. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

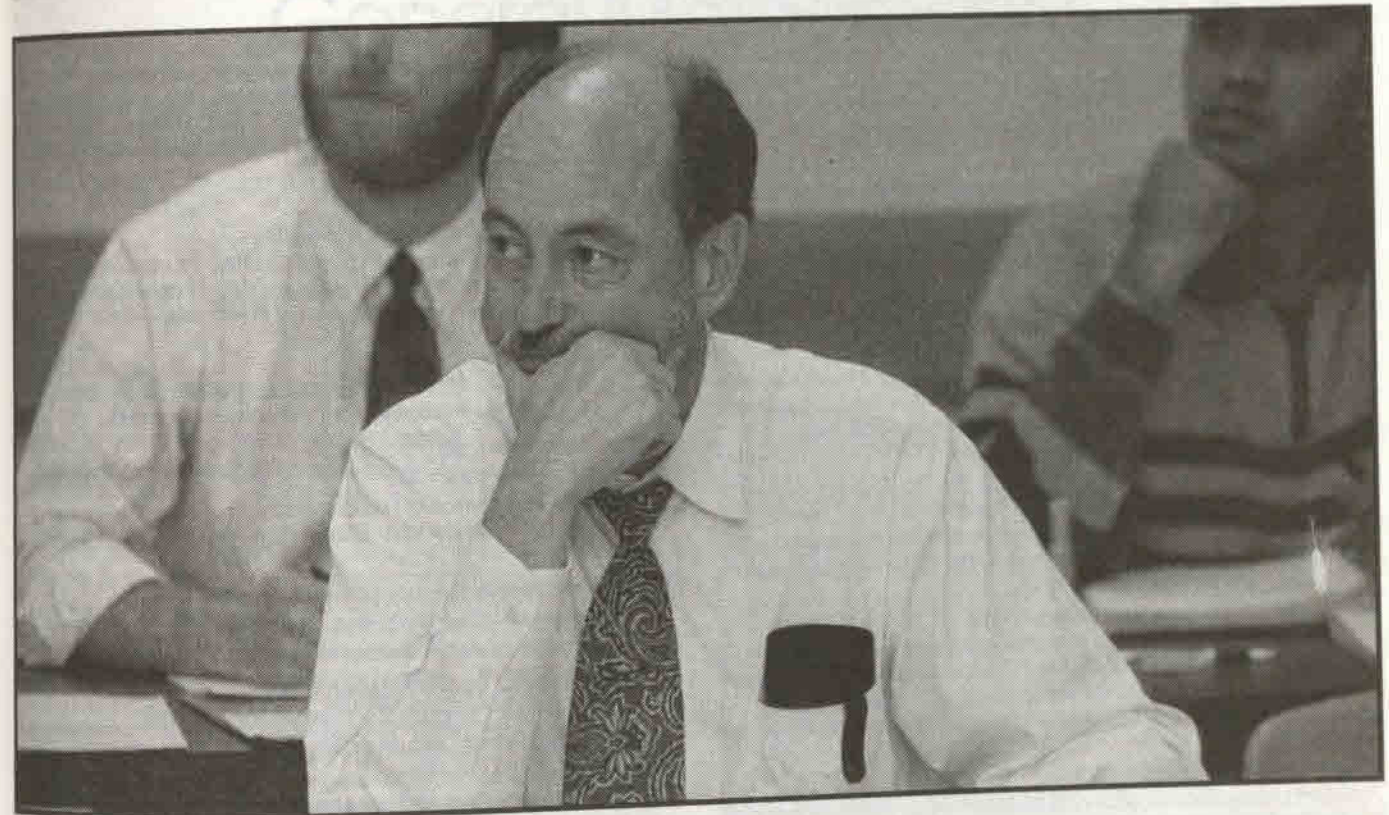
High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. **Four years** of high school level language count as the equivalent of three college semesters, thus fulfilling the foreign language requirement.



Courses

LOWER DIVISION COURSES

Native speakers of French will not receive credit for taking lower division courses except with advance approval from the department.

All lower division courses in French are taught in French.

No credit will be given when French 100A, 100B, the 200 series, 301, or 302 are taken concurrently or out of sequence.

100A. Elementary (5) I, II

Pronunciation, speaking and writing, readings on French culture and civilization, essentials of grammar. Not open to students who have completed three years of high school French unless the third course was completed five or more years ago.

100B. Elementary (5) I, II

Prerequisite: French 100A or two years of high school French. Continuation of French 100A. Not open to students who have completed four years of high school French unless the fourth course was completed five or more years ago.

200A. French Grammar (3) I, II

Prerequisite: French 100B with a grade of C or better or three years of high school French. French majors and minors should enroll concurrently in French 200B or 200E. International Business majors should enroll concurrently in French 200E.

Comprehensive survey of French grammar at the intermediate level. Analysis and use of typical French structures.

200B. Reading French (3) I, II

Prerequisite: French 100B or three years of high school French. French majors and minors should enroll concurrently in French 200A. Not open to students with credit for more than 10 units of 200-level French.

Emphasis on reading: short stories, plays, cultural material, etc.

200C. Writing French (3) I, II

Prerequisite: French 200A.

French majors, minors, and International Business majors should enroll concurrently in French 200D.

Emphasis on written composition; study of a variety of prose models and practice in writing.

200D. The Grammar of Spoken French (3) I, II

Prerequisite: French 200A

French majors, minors, and International Business majors should enroll concurrently in French 200C.

Analysis of grammar and use of modern French through study of cultural materials, for proficiency in oral communication.

200E. Readings in Commercial French (3)

Prerequisite: French 100B or three years of high school French.

French majors, minors, and International Business majors should enroll concurrently in French 200A. Not open to students with credit for more than 10 units of 200-level French.

Introduction to commercial institutions and socioeconomic aspects of contemporary France; development of a useful vocabulary in commercial French. Majors and minors should enroll concurrently in French 200A.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division courses in French are taught in French unless otherwise stated.

French 301 and French 302 are not open to students who hold a French baccalauréat.

301. Advanced Grammar and Composition (3) I, II

Prerequisites: Twelve units of 200-level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors.

Advanced grammar and stylistics, intensive writing practice.

302. Translation and Stylistics (3) II

Prerequisites: French 301, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors.

Comparative stylistics of French and English, taught through translation.

304. French Phonetics and Diction (3)

Prerequisite: Twelve units of 200-level French.

Study of the sound system of French as a means of improving pronunciation and diction. Phonetic transcription, classroom exercises and laboratory work. (Formerly numbered French 401.)

305A. Survey of French Literature (3) I

Prerequisites: Twelve units of 200-level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors.

Important movements, authors, and works in French literature from the Middle Ages to the Enlightenment.

305B. Survey of French Literature (3) II

Prerequisites: Twelve units of 200-level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors.

Continuation of French 305A from the Enlightenment to the present.

421. French Civilization (3) II

Prerequisites: Twelve units of 200-level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors.

French civilization from Middle Ages to present. Artistic, intellectual achievements and cultural movements. Not open to students with credit in Humanities 310.

422. Contemporary France (3) I

Prerequisites: Twelve units of 200-level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors.

Contemporary France, emphasizing political, economic and social structures as well as artistic, intellectual, and cultural trends.

423. Commercial French (3) II

Prerequisite: French 301. **Proof of completion of prerequisite required:** Copy of transcript.

French commercial practices and language, the enterprise, correspondence, advertising, telecommunications, banking, transportation, import-export, insurance, accounting, stock market, preparation for the *Certificat Pratique de Français Commercial et Economique* offered by the Paris Chamber of Commerce.

424. French Cinema and Theory (3)

Two lectures and two hours of activity.

Prerequisites: Twelve units of lower division French. General Education students must also have completed Foundations II.C. Humanities.

French cinema emphasizing social, political, and cultural changes in modern France. Topics include film theory, the new wave, history in cinema, influence of feminism, French colonialism, race, class, and gender in modern culture. Taught in English.

425. Francophone Africa in Literature and Film (3)

Prerequisites: French 301 for French majors; upper division standing for non-French majors. General Education students must also have completed Foundations II.C. Humanities.

French-speaking African cultural history through literature and film. Consistency of African cultural expressions and conventions. Taught in English.

496. Topics in French Studies (1-4)

Topics in French literature, culture and linguistics. May be repeated with new content. Maximum credit nine units. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. May be taught in English. See Class Schedule for specific content.

499. Special Study (1-3) I, II

Prerequisites: French 302, 305A, 305B.

Individual study. Maximum credit six units. This course is intended only for students who are currently enrolled in or who already have credit for all upper division courses in French available in any given semester.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

501. Translation (3)

Prerequisite: French 302.

Stylistic comparison of French and English through translation of a variety of prose styles from English to French and from French to English.

521. Seventeenth Century French Literature (3)

Prerequisites: French 302 and either 305A or 305B.

Major authors of the seventeenth century.

531. Eighteenth Century French Literature (3)

Prerequisites: French 302 and either 305A or 305B.

Major eighteenth century writers of fiction, with emphasis on Voltaire, Diderot and Rousseau.

541. Nineteenth Century French Novel (3)

Prerequisites: French 302 and either 305A or 305B.

Major novelists of the nineteenth century.

543. Modern French Theatre (3)

Prerequisites: French 302 and either 305A or 305B.

Major dramatists of modern France.

545. Modern French Poetry (3)

Prerequisites: French 302 and either 305A or 305B.

Representative French poets of the modern era.

551. Twentieth Century French Novel (3)

Prerequisites: French 302 and either 305A or 305B.

Major French novelists of the twentieth century.

560. Applied French Linguistics (3)

Prerequisites: French 302 and 304.

Phonemics, morphemics, syntax and semantics of present day French. Taught in English.

561. Methods in Teaching French as a Second Language (3)

Prerequisite: French 560.

Teaching of French as a second language; contemporary theory and methods. Not open to students with credit or concurrent enrollment in Spanish 561. Taught in English.

596. Topics in French Studies (1-4)

Prerequisite: French 302.

Topics in French language, literature, and linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of nine units of 596. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES Refer to the Graduate Bulletin.

General Mathematics Studies

In the College of Arts and Letters

OFFICE: Nasatir Hall 232

TELEPHONE: (619) 594-6515

Faculty

Lecturers: Keesey, Morgan, Quan

Offered by the College of Arts and Letters

Courses in general mathematics studies.

General Information

The principal role of the General Mathematics Studies program is to prepare students to satisfy the CSU Entry Level Mathematics requirement, the SDSU Mathematics Competency requirement or SDSU Mathematics Departmental Placement Examination, Part IA (intermediate algebra) requirement. Passing the final examination for General Mathematics Studies 90B, 99B, 99C, or 91 satisfies the SDSU Mathematics Competency requirement. Credit in General Mathematics Studies 99C or 91 also satisfies the ELM* and SDSU Mathematics Placement Examination, Part IA, requirements necessary for students enrolling in designated mathematics and statistics courses. For more information on the mathematics competency requirements, refer to the "Graduation Requirements" section of this catalog.

In addition to the competency courses, the General Mathematics Studies program offers one unit workshops in geometry and other selected topics in mathematics.

The units awarded to a student who earns a grade of "Credit" in a General Mathematics Studies course are not applicable to the baccalaureate degree.

* The ELM requirement is satisfied by these courses *only if* the student has already attempted and failed the ELM.

Courses

LOWER DIVISION COURSES (Non-Baccalaureate Credit)

General mathematics studies courses numbered below 100 may not be used to satisfy general education or graduation requirements.

90A. Fundamentals of Mathematics (3) Cr/NC/SP I, II, S

Prerequisite: Appropriate score on the General Mathematics Studies diagnostic test or other standardized mathematics examination.

Review of arithmetic and elementary algebra; topics from geometry covered in adjunct workshops (General Mathematics Studies 98A). Students earning "Cr" (credit) should enroll in General Mathematics Studies 90B or 91. Students earning "SP" (satisfactory progress) or "NC" (no credit) should repeat General Mathematics Studies 90A. May be repeated with consent of instructor. Maximum credit six units. (Formerly numbered Academic Skills 90A.)

90B. Basic Algebra Review (3) Cr/NC I, II, S

Prerequisite: "Cr" (credit) in General Mathematics Studies 90A or appropriate score on the General Mathematics Studies diagnostic test or other standardized mathematics examination.

Designed for students who have attained "Cr" (credit) in General Mathematics Studies 90A but have not satisfied the CSU Entry-Level Mathematics Examination (ELM) or SDSU Mathematics Competency

requirement. Topics covered include elementary algebra, intermediate algebra, and geometry. Prepares students for CSU Entry-Level Mathematics Examination (ELM), but does not satisfy ELM requirement. Course final examination is SDSU Mathematics Departmental Placement Examination, Part C; a passing score on the final examination gives "Cr" (credit) and satisfies SDSU Mathematics Competency requirements. (Formerly numbered Academic Skills 90B.)

91. Intermediate Algebra (3) Cr/NC I, II, S

Prerequisites: Credit in General Mathematics Studies 90B or 99B or appropriate score on the General Mathematics Studies diagnostic test or the ELM.

Designed to prepare students for Mathematics Departmental Placement Examination, Part IA, which is given as final examination for course. A review of intermediate algebra skills. Topics include rational and radical expressions, quadratic equations, set and function notations, logarithms, and complex numbers. Credit in General Mathematics Studies 91 satisfies Mathematics Departmental Placement Examination, Part IA, Mathematics Competency, and Entry Level Mathematics Examination requirements. (Formerly numbered Academic Skills 91.)

98. Mini-Course: Selected Topics (1) Cr/NC

Assorted short courses which will meet three hours a week for five weeks and will cover a variety of General Mathematics Studies through intensive lectures and laboratory work.

Suggested topics: Communication skills, research tools, and learning skills. See Class Schedule for specific content. Credit earned in courses from this series is not applicable to a bachelor's degree. (Formerly numbered Academic Skills 96.)

A. Learning Skills B. Communication Skills

99A. Fundamentals of Mathematics/Intensive Learning Experience (4) Cr/NC/SP I, II

Three lectures and one hour of activity.

Prerequisite: Appropriate score on General Mathematics Studies diagnostic test or other standardized mathematics examination and freshman class standing.

Prepares freshmen for SDSU Mathematics Placement Examination, Part C, and CSU Entry Level Mathematics Examination (ELM). Neither examination requirement is fulfilled by this course. Review of arithmetic and basic algebra; topics from geometry covered in adjunct workshops. Students attend weekly reinforcement workshops adjunct workshops. Students attending a week in mathematics laboratory. Students attaining a one hour each week in mathematics laboratory. Students attaining a score of 20 or better on final examination earn "Cr" (credit) in course. Students attaining 15 to 19 points earn an "SP" (satisfactory progress); these students should reenroll in General Mathematics Studies 99A in the following semester. Students attaining scores of 14 or lower receive "NC" (no credit) and should repeat General Mathematics Studies 99A. (Formerly numbered Academic Skills 99A.)

* General Mathematics Studies 90B and 99B is not offered at the Imperial Valley Campus. Students who do not attain a Cr in General Mathematics Studies 90A at the Imperial Valley Campus should repeat General Mathematics Studies 90A.

***99B. Fundamentals of Mathematics/Intensive Learning Experience (4) Cr/NC I, II**

Three lectures and one hour of activity.

Prerequisite: Grade of "Cr" (credit) in General Mathematics Studies 99A or appropriate score on General Mathematics Studies diagnostic test and freshman class standing.

For freshmen who have attained "Cr" (credit) in General Mathematics Studies 99A or whose diagnostic scores indicate that this is the appropriate level for them, but have not satisfied the CSU-Entry Level Mathematics Examination (ELM) or SDSU Mathematics Competency requirement. Topics covered include elementary algebra with review of arithmetic and topics from geometry and intermediate algebra. Class sessions augmented by one hour of reinforcement laboratory work each week. Prepares students for CSU Entry Level Mathematics Examination (ELM), but does not satisfy ELM requirement. Course final is SDSU Mathematics Placement Examination, Part C; a score of 15 or better out of 25 on final examination earns "credit" and satisfies the SDSU Mathematics Competency requirements. (Formerly numbered Academic Skills 99B.)

99C. Intermediate Algebra/Intensive Learning Experience (4) Cr/NC

Three lectures and one hour of activity.

Prerequisite: Grade of "Cr" (credit) in General Mathematics Studies 99B or appropriate score on ELM or General Mathematics Studies diagnostic test and freshman class standing.

For freshmen who have attained "Cr" (credit) in General Mathematics Studies 99B or whose ELM or diagnostic score indicates that this is the appropriate level for them, but who have not yet satisfied the CSU-Entry Level Mathematics Examination (ELM), SDSU Mathematics Placement Examination, Part IA, or SDSU Mathematics Competency requirements. Course content is identical to General

Mathematics Studies 91, but General Mathematics Studies 99C class sessions will be augmented by one mandatory hour of reinforcement laboratory work each week. Course final is SDSU Mathematics Placement Examination, Part IA; a score of 15 or better out of 25 earns "credit" and satisfies ELM, SDSU Mathematics Placement Examination, Part IA, and SDSU Mathematics Competency requirements.

* General Mathematics Studies 90B and 99B are not offered at the Imperial Valley Campus. Students who do not attain a Cr in General Mathematics Studies 90A at the Imperial Valley Campus should repeat General Mathematics Studies 90A.

NOTE:

General Mathematics Studies 90A is equivalent to General Mathematics Studies 99A.

General Mathematics Studies 90B is equivalent to General Mathematics Studies 99B.

Enrollment in General Mathematics Studies 99A, 99B and 99C is restricted to students participating in the Intensive Learning Experience program.



General Studies

The University offers a number of courses which are not part of a regular departmental curriculum. They provide students with opportunities for achieving academic credit through interdisciplinary and nontraditional coursework.

General Courses**LOWER DIVISION COURSES****200. Professional Experience and Community Service (1-3) Cr/NC**

Prerequisites: Twelve units of college credit, minimum grade point average of 2.0, concurrent participation in professional or community service activity, and approval of course contract.

Academic work designed with faculty approval to complement concurrent paid or unpaid professional or community service experience. Information and course contract forms available in Division of Undergraduate Studies. Applications must be submitted to the Division prior to the end of the first week of classes. May be used to satisfy major or minor requirements only upon written approval of department chair. No combination of General Studies 200 and 400 in excess of six units may be counted for credit toward a bachelor's degree.

275. Honors Special Study (1)

For further information contact the Division of Undergraduate Studies.

Prerequisite: Admission to the University Honors Program.

Special study associated with a lower division course offered as an honors section, and serving as an extension of the course.

**UPPER DIVISION COURSES
(Intended for Undergraduates)****330. Plagues Through the Ages (3) I, II**

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Political, economic, religious, and cultural effects of disease. Significant role epidemics and disease played in development of civilizations from beginning of recorded history to present.

340. Confronting AIDS (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning, II.B. Social and Behavioral Sciences, and II.C. Humanities.

Examines the AIDS epidemic from historical, epidemiological, biological, medical, psychological, political, legal, and ethical perspectives.

400. Professional Experience and Community Service (1-3) Cr/NC

Prerequisites: Upper division standing, minimum grade point average of 2.0, concurrent participation in professional or community service activity and approval of course contract. Completion of prerequisites required.

Academic work designed with faculty approval to complement concurrent paid or unpaid professional or community service experience. Information and course forms available in Division of Undergraduate Studies. Applications must be submitted to the Division prior to the end of the first week of classes. May be used to satisfy major or minor requirements only upon written approval of department chair. No combination of General Studies 200 and 400 in excess of six units may be counted for credit toward a bachelor's degree.

**420. Disability and Society (3) I, II**

Prerequisites: Psychology 101, Sociology 101, or Anthropology 101, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Range of human experience of handicapped individuals; attitudes toward handicapped individuals; interrelationship between societal institutions and needs of disabled people; historical response to these needs and contemporary issues with particular emphasis on normalization, integration, and community living.

Interdisciplinary Courses

General Studies courses (250 or 350) are interdisciplinary selected topics courses.

Students interested in enrolling in General Studies 250 or 350 should contact the faculty adviser of the department(s) offering the course for further details.

250. Interdisciplinary Topics (1-4)**350. Interdisciplinary Topics (1-4)**

Geography

In the College of Arts and Letters

Faculty

Emeritus: Blick, Colombo, Eidemiller, Keen, Kiewiet de Jonge, O'Brien, Storm, Taylor, Yah

Chair: Stow

The Stephen and Mary Birch Foundation Chair in Geographical Studies: Getis

Professors: Aguado, Aitken, Ford, Fredrich, Getis, Greenwood, Griffin, Hope, Johnson, McArthur, Pryde, Quastler, Stow, Stutz, Weeks, Wright

Associate Professors: Franklin, O'Leary

Assistant Professor: Rey

Offered by the Department

Doctor of Philosophy degree in geography.

Master of Arts degree in geography.

Major in geography with the B.A. degree in liberal arts and sciences.

General geography.

Emphasis in methods of geographical analysis.

Emphasis in natural resource and environmental geography.

Emphasis in physical geography.

Emphasis in urban and regional analysis.

Minor in geography.

Certificate in geographic information systems.

The Stephen and Mary Birch Foundation Chair in Geographical Studies

The Stephen and Mary Birch Foundation Chair in Geographical Studies was created through the Birch Foundation's grant to the Geography Department to endow a chair and create a Center for Earth Systems Analysis Research. Dr. Arthur Getis, internationally recognized for his expertise in theory and methodology of spatial analysis applied to urban and economic systems, is the second holder of the Chair.

The Major

Geography is the study of spatial aspects of the physical environment, human activities and landscapes, and the nature of their interactions. Geographers draw upon theories from both the physical and social sciences. As physical scientists, they study the processes and resulting features of the earth's surface, such as vegetation, climate, soils, landforms, and resources. As social scientists, geographers explore such topics as the arrangement of societies on the earth's surface, land use patterns, urbanization, resource and energy usage, and environmental conservation.

The Department of Geography offers a broad range of fields from which to select an emphasis. These include physical geography—focusing on scientific explanations of the earth's physical features and processes; natural resource and environmental geography—concerned with human impacts on the earth; urban and regional analysis—dealing with the form of cities and the dynamics of regional systems; methods of geographical analysis—providing a background in cartography, geographic information systems, remote sensing and spatial statistics. A comprehensive program is offered in general geography—encompassing topics from all of the emphases.

OFFICE: Storm Hall 323

TELEPHONE: (619) 594-5437

The Department also offers a Certificate in Geographic Information Systems. This program is for students interested in mapping, computer graphics, surveying, aerial photography, and the use of satellite technology to study earth resources.

A variety of career opportunities exist for geography majors. In recent years many graduates with bachelor degrees have entered the fields of urban and environmental planning, both in the public and private sectors. Employment is also available as geographic information systems specialists, cartographers, park naturalists, and remote sensing specialists. The following represent some of the jobs held by recent graduates: environmental impact analyst, urban planner, cartographer, park ranger, transportation planner, travel agent, teacher, zoning investigator, terrain analyst. Some graduates have chosen to pursue opportunities in business where firms are interested in hiring college graduates with broad academic backgrounds.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Geography Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22061)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in geography courses can apply to the degree.

Graduation with Distinction. A student desiring to graduate with Distinction in Geography must meet the University requirements listed in the section of this catalog on "Graduation Requirements" and be recommended by the geography faculty.

General Geography

A minor in another department approved by the undergraduate adviser in Geography is required for this degree.

Preparation for the Major. Geography 101, 101L, 102. (7 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W, 581W, 584W, or Rhetoric and Writing 305W, 500W, 503W with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in geography to include three units selected from each of the following groups: (a) Geography 321-339; (b) 353-358, 554-560, 585; (c) 370, 378, 545, 570-577; (d) 378, 401, 409, 504-511, 545; (e) 380-381; (f) 385, 484, 488, 581-588, and nine units from one of the following groups: (a) Physical: Geography 378, 401, 409, 504-511, 545; (b) Natural Resource and Environmental: 370, 378, 545, 560, 570-577; (c) Urban and Regional Analysis: 353-358, 385, 554-560, 585; (d) Methods of Geographical Analysis: 380-385, 484, 488, 581-588; (e) Cultural: 354, 554, 555, 560, but not more than six units from Geography 312, 321-339. No course may be used more than once to satisfy this requirement.

Emphasis in Methods of Geographical Analysis

Students selecting this emphasis are not required to complete a minor in another department.

Preparation for the Major. Geography 101, 101L, 102; Computer Science 106 or 107; and a three-unit course in introductory statistics. (13 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W, 581W, 584W, or Rhetoric and Writing 305W, 500W, 503W, with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units in geography to include Geography 385; 15 units selected from Geography 380-381, 484, 488, 498, 581-588*; three units selected from each of the following groups: (a) 321-339; (b) 370, 545, 570-577; (c) 353-358, 554-560; six units selected from Geography 378, 401, 409, 504-511; and three units of upper division geography electives.

* Geography 595 may be used to satisfy three units in this group where appropriate and approved by the department.

Emphasis in Natural Resource and Environmental Geography

Students selecting this emphasis are not required to complete a minor in another department.

Students may select either track (a) Environmental Analysis or track (b) Environmental Policy.

Preparation for the Major. Geography 101, 101L, 102; Biology 100 and 100L, or Natural Science 110B; Political Science 102. (14 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W, 581W, 584W, or Rhetoric and Writing 305W, 500W, 503W, with a grade of C (2.0) or better.

Track (a): Environmental Analysis

Additional Preparation for the major. Mathematics 121 or 150 or 155; Chemistry 100; and Physics 107. (11-13 units)

Major. A minimum of 36 upper division units in geography to include Geography 370 and 385; three units from 380-381; three units from 321-339; six units from 378, 401, 409, 504-511, and three units from 353-358, 554-559.

An additional 15 units to be selected from 3 or 4 units from Geography 484 or 488, three units from 581-588 and 9 units from 545, 560, 570-574, 575 or 577, 595.

Track (b): Environmental Policy

Additional Preparation for the major. Economics 101 or 102. (3 units)

Major. A minimum of 36 upper division units in geography to include Geography 370 and 385; three units from 380-381; three units from 321-339; six units from 378, 401, 409, 504-511, and three units from 353-358, 554-559.

An additional 15 units to be selected from 3 or 4 units from Geography 484 or 488, 581-588 and 12 units from 545, 560, 570-574, 575 or 577, 595.

Emphasis in Physical Geography

Students selecting this emphasis are not required to complete a minor in another department.

Preparation for the Major. Geography 101, 101L, 102; Mathematics 121 or 150 or 155; Chemistry 200; Physics 180A, 182A. (19-21 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W, 581W, 584W, or Rhetoric and Writing 305W, 500W, 503W, with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units in geography to include Geography 380, 385; fifteen units selected from Geography 378, 401, 409, 498, 504-511*; six units selected from Geography 484, 488, 581-588; and three units selected from each of the following groups: (a) 321-339; (b) 353-370, 545, 554-577; and three units of electives.

* Geography 595 may be used to satisfy three units in this group where appropriate and approved by the department.

Emphasis in Urban and Regional Analysis

Students selecting this emphasis are not required to complete a minor in another department.

Preparation for the Major. Geography 101, 101L, 102; Computer Science 106; Economics 102. (13 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W, 581W, 584W, or Rhetoric and Writing 305W, 500W, 503W, with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units in geography to include Geography 385; 15 units selected from Geography 353-354, 358, 498, 554-560, 572, 585*; six units selected from 378, 401, 409, 504-511; three additional units from each of the following groups: (a) 321-339; (b) 370, 545, 570-577; (c) 380-381; and three units of electives.

* Geography 595 may be used to satisfy three units in this group where appropriate and approved by the department.

Geography Minor

The minor in geography consists of a minimum of 18-19 units of geography to include Geography 101, 102 and one of the following areas:

Cultural: Six units from Geography 312, 354, 554, 555, 560, and six units selected from regional courses Geography 321-339.

Methods of Geographical Analysis: Nine units selected from Geography 380-385, 484, 488, 581-588, and three units selected from any other upper division course.

Natural Resource and Environment: Nine units selected from Geography 370, 378, 545, 560, 570-577, and three or four units selected from methods courses Geography 380-385, 484, 488, 581-588.

Physical: Nine units selected from Geography 378, 401, 409, 504-511, 545, and three or four units selected from methods courses Geography 380-385, 484, 488, 581-588.

Urban and Regional Analysis: Nine units selected from Geography 353-358, 554-560, and three or four units from either methods or regional courses Geography 321-339, 380-385, 484, 488, 581-588.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Geographic Information Systems Certificate*

The purpose of the program is to prepare students to carry out mapping activities and cartographic analyses in public and private organizations.

Students must apply for admission to the program before the completion of 15 certificate units and must complete the required units with a 2.5 grade point average.

The certificate requires 24 units to include six units selected from Civil Engineering 218, Computer Science 106, 107, 108; and eighteen units selected from Geography 380, 381, 484, 488, 581, 582, 584, 588, 595. Courses with relevant content may be substituted for the courses listed above with the approval of the certificate adviser. Courses in the certificate may be counted toward the major in geography but may not be counted toward the minor.

* Additional prerequisites required for this certificate.

Courses

LOWER DIVISION COURSES

101. Principles of Physical Geography (3) I, II (CAN GEOG 2)

Principles underlying the fundamental nature and dynamics of the physical world: the atmosphere, hydrosphere, biosphere, lithosphere, and their systematic spatial relationships.

101L. Physical Geography Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Geography 101.

Practical exercise and observation in map analysis, weather elements, climatic regions, and the earth's landform features. Designed to supplement Geography 101.

102. Principles of Cultural Geography (3) I, II (CAN GEOG 4)

Introduction to cultural geography, covering the elements of culture, such as technology, language, religion, political organization, methods of livelihood, settlement patterns and population, and the regional distribution of these elements over the earth. Field trips may be arranged.

103. Principles of Meteorology (3) I, II

The composition, structure, and circulation of the atmosphere, including elementary theory of storms and other weather disturbances. May be followed by, or taken with, Geography 103L.

103L. Meteorology Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Geography 103.

Theory of meteorological instruments and observations. Practical exercise in surface and upper air observations, weather codes, and elementary weather map analysis.

UPPER DIVISION COURSES (Intended for Undergraduates)

312. Culture Worlds (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Geographical characteristics and development of major cultural realms of the world. Analysis of spatial components of contemporary conflict within and between these regions.

321. United States (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors. Recommended: Geography 101 or 102.

Systematic and regional analysis of physical and cultural landscapes of the United States.

323. Middle America (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors. Recommended: Geography 101 or 102.

The land and peoples of Mexico, Central America, and the islands of the Caribbean; a survey of the resources, economies, and trade of the region. Field trips may be arranged.

324. South America (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors. Recommended: Geography 101 or 102.

The physical regions and human geography of South America, including the history of colonization and the exploitation of resources.

336. Europe (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors. Recommended: Geography 101 or 102.

Systematic analysis of the geographic bases of modern European life. Regional investigation of countries of Europe except the Soviet Union.

337. Republics of the Former Soviet Union (3) I

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors. Recommended: Geography 101 or 102.

Ethnic composition, industrial and agricultural resources, demographics, and environmental management in this region, with an emphasis on the various cultural regions.

339. Australia, New Zealand, and the Pacific Islands (3)

Prerequisite recommended: Geography 101 or 102.

Regional geography of Australia, New Zealand, and the Pacific Islands. Distribution of cultural groups, economic activities, and evolution of current land use patterns.

353. Location of Economic Activity (3)

Prerequisite recommended: Geography 101 or 102.

Spatial arrangement and interrelationship of resources, production, exchange and consumption; principles and theory in industrial location; selecting favorable locations for capital investments, determining growth potential of service and market areas, meeting environmental impact requirements.

354. Geography of Cities (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors. Recommended: Geography 101 or 102.

Survey of the location, function and spread of cities; the spatial and functional arrangement of activities in cities, leading to an analysis of current urban problems: sprawl, city decline, metropolitan transportation. Field trips may be arranged.

358. Transportation Geography (3) I

Prerequisite recommended: Geography 101 or 102.

The spatial distribution of transportation networks and commodity movement and their relationship to the distribution of economic activity.

370. Environmental and Natural Resource Conservation (3) I, II

Prerequisites: Geography 101 or 102; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Quality of environmental and natural resources within changing human and natural systems: pollution problems; preservation of open space, habitats, and wilderness; and conservation of natural resources.

376. Environmental Physiography (3)

Prerequisite: Geography 101.

Introduction to environmental physiographic dynamics. Assessment of man's role in these dynamics and their effect on urban and rural land use; including such topics as induced erosion, landslides, and flooding.

380. Map Investigation (3) I, II

Two lectures and three hours of laboratory.

Prerequisite: Geography 101 or 102.

Use of the map as an analytical tool in geography. History of developments in cartography.

381. Maps and Graphic Methods (3) I, II

Two lectures and three hours of laboratory.

Prerequisite: Geography 101 or 102.

The art and science of creating graphs and maps as media for describing and analyzing geographic phenomena. Laboratory instruction and practice in cartographic techniques with emphasis on presenting quantitative data.

385. Spatial Data Analysis (3) I, II

Prerequisites: Geography 101 or 102; Mathematics 250 or comparable course in statistics.

Analysis of spatially distributed data including computer applications. Spatial sampling, descriptive statistics for areal data, inferential statistics, use of maps in data analysis.

401. Physiography (3)

Prerequisite: Geography 101.

Morphology and genetic interpretation of the relief features of the earth's surface.

409. Global Climate Change (3)

Prerequisite: Geography 101 or 103.

Global climate system and feedbacks with biosphere. Past climates and potential future changes, including changes in greenhouse gases, ozone depletion and acid rain. Predictions and uncertainty regarding changes including natural and anthropogenic causes.

484. Geographic Information Systems (3)

Two lectures and three hours of laboratory.

Prerequisite: Three units from Geography 380, 381, 488, or from computer programming.

Procedures for encoding, storage, management, and display of spatial data; theory of computer-assisted map analysis; examination of important geographic information systems.

488. Remote Sensing of Environment (4) I

Three lectures and three hours of laboratory.

Prerequisite: Geography 101. Recommended: Physics 180A-180B.

Techniques for acquiring and interpreting remotely sensed data of environment. Electromagnetic radiation processes, aerial photographic systems, and human interpretation of aerial and satellite imagery. Geographic analysis of selected terrestrial, oceanographic, and atmospheric processes and resources.

496. Selected Studies in Geography (3)

Prerequisite: Six units in geography.

Critical analysis of problems within a specific field of the discipline. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units. Field trips may be arranged.

498. Senior Thesis (3)

Prerequisite: An overall grade point average of 3.0 and consent of department.

A written thesis based on an individual research project.

499. Special Study (1-3) I, II

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

504. Coastal and Submarine Physiography (3)

Prerequisite: Geography 378 or 401.

Analysis of marine waves, of their modification in shallow waters, of coastal currents and tides. Interpretation of coastal and submarine relief in relation to environmental processes and their modification by man. Field trips may be arranged.

505. Geography of Soils (3) II

Prerequisite: Geography 101.

The nature, properties and distribution of soils and their relationships to the influence of climates, landforms, and human activity. Field trips may be arranged.

507. Geography of Natural Vegetation (3) I, II

Prerequisite: Geography 101.

The natural vegetation associations of the world, their distribution, classification and development, including relationship to human activities. Field trips may be arranged.

508. Physical Climatology (3) I

Prerequisites: Geography 103; Mathematics 121 or 150.

Physical processes of energy transfer to and from the atmosphere. Solar and thermal radiation, turbulent heat transfer, soil heat transfer, global distributions of energy balance components, and bioclimatology.

509. Regional Climatology (3) II

Prerequisite: Geography 103.

The causes of climatic types as they occur throughout the world. Principles of several climatic classifications.

510. Advanced Meteorology (3) II

Prerequisites: Geography 103; Mathematics 121 or 150.

Physical characteristics of the atmosphere including thermodynamics, moisture and condensation, atmospheric aerosol, and cloud processes.

511. Hydroclimatology (3)

Prerequisites: Geography 101 or 103 and Mathematics 121 or 150.

Hydrologic cycle, energy and mass fluxes from the earth to the atmosphere and land-atmosphere interactions. Agricultural and hydrologic significance of spatial variability of energy and mass fluxes.

545. Arid Lands (3)

Prerequisites: Geography 101 and 370; Biology 100 or 201.

Physical geography and human use of arid lands. Traditional and modern land use systems in context of technological and economic development. Environmental and social impacts of development including desertification.

554. World Cities: Comparative Approaches to Urbanization (3) II

Prerequisite: Geography 354.

Worldwide trends in urbanization. Case studies of selected cities from various culture areas with focus on international variations in city structure and urban problems.

555. Historic Preservation and Urban Design (3)

Prerequisite: Geography 102.

Processes of growth and change in cities. Techniques of preserving, renovating, rehabilitating, and recycling valued buildings and neighborhoods. International comparisons of preservation policies and practices and analyses of urban patterns resulting from them.

556. Location and Spatial Structure of Cities (3)

Prerequisite: Geography 354 or three units of upper division coursework in a related field.

Principles and characteristics of urban growth and settlement; the internal structure and functioning of urban centers; spatial models of urban land use; growth management, transportation problems, and sociopolitical urban problems. Field trips may be arranged.

559. Urban Transportation Geography (3)

Prerequisite: Three units of upper division urban or transportation coursework in geography or related field.

Urban transportation networks and their effects, past, present and future, on the economy and physical structure of the urban region. Field trips may be arranged.

560. Environmental Perception and Behavioral Geography (3)

Prerequisite: Geography 102.

Contemporary perceptual and behavioral theories and methods in geography. Problems of empirical research and application in the built and natural environments.

570. Environmental Resource Conservation (3)

Prerequisite: Geography 370.

Management of environmental and natural resources. Effective programs and the institutional frameworks in which they occur. (Formerly numbered Geography 569.)

571. Energy Resources and the Environment (3)

Prerequisite: Geography 370. Recommended: Physics 107 or 301.

Location and distribution of conventional and renewable energy resources, their environmental effects, and policy questions regarding future development and use of energy resources.

572. Land Use Analysis (3) II

Prerequisite: Geography 370.

Problems of maintaining environmental quality in the process of land conversion from rural to urban uses with emphasis on land capability and suitability studies. Field trips may be arranged.

573. Population and the Environment (3)

Prerequisite: Geography 102.

Population distribution, growth, and characteristics as they relate to environmental degradation, both as causes and consequences. Roles of women, sustainable development, carrying capacity, optimum population, and policy initiatives in relationships between population and environment.

574. Water Resources (3) I

Prerequisite: Geography 370.

Occurrence and utilization of water resources and the problems of water resource development. Field trips may be arranged.

575. Geography of Recreational Land Use (3) I, II

Prerequisite: Geography 101 or 102.

Importance of location and environment in the use, management, and quality of recreation areas. Field trips may be arranged.

577. Geography of the National Parks (3)

Prerequisite: Geography 370.

Human and land relationships in the national parks of the United States. Emphasis on problems arising from the preservation and use mandate under which parks are managed.

581. Cartographic Design (3)

Prerequisite: Geography 381.

Computer-assisted map production techniques with emphasis on map design and color use.

582. Automated Cartography (3)

Two lectures and three hours of laboratory.

Prerequisite: Geography 380, 381, or 484.

Computerized methods of graphically presenting and analyzing spatial data; examination of existing mapping software and digital data sources.

584. Geographic Information Systems Applications (3) II

Two lectures and three hours of laboratory.

Prerequisite: Geography 484, 582, or 588.

Conceptualization, completion, and implementation of geographic information systems (GIS) at local, regional, national, and global levels. Spatial analysis and modeling with GIS. GIS in planning, management, and research.

585. Quantitative Methods in Geographic Research (3)

Prerequisite: Geography 385.

Application of statistical techniques to geographic research including simple regression and correlation, multiple regression, classification, factor analysis, and computer applications.

588. Intermediate Remote Sensing of Environment (4) II

Three lectures and three hours of laboratory.

Prerequisites: Geography 385 and 488.

Multispectral remote sensor systems and interpretation of imagery from nonphotographic systems. Computer-assisted image processing. Geographic analysis of selected terrestrial, oceanographic, and atmospheric processes.

595. Geographic Internship (3) I, II

Prerequisites: Six upper division units in geography and consent of instructor.

Students will be assigned to various government agencies and industry and will work under the joint supervision of agency heads and the course instructor. Maximum credit three units.

596. Advanced Topics in Geography (1-3)

Prerequisite: Six upper division units in geography.

Advanced special topics in geography. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Geological Sciences

In the College of Sciences

OFFICE: Chemistry/Geology 205

TELEPHONE: (619) 594-5586

Faculty

Emeritus: Brooks, Gastil, Kern, Krummenacher, McEuen, Ptacek, Roberts, Threet
Chair: Bertine
The Rollin and Caroline Eckis Chair in Seismology: Day
Professors: Abbott, Berry, Bertine, Dorman, Girty, Huntley, Jiracek, Marshall, Miller, Peterson, Rockwell, Walawender
Associate Professors: Frost, Kimbrough
Assistant Professor: Thorbjarnarson

Offered by the Department

Master of Science degree in geological sciences.
Major in geological sciences with the B.S. degree in applied arts and sciences.

Option in engineering geology.

Option in geochemistry.

Option in geology.

Option in geophysics.

Option in hydrogeology.

Option in marine geology.

Option in paleontology.

Minor in geological sciences.

Minor in oceanography.

The Rollin and Caroline Eckis Chair in Seismology

A gift from Rollin and Caroline Eckis, combined with matching funds from the Atlantic Richfield Company and contributions from SDSU faculty and staff, established The Rollin and Caroline Eckis Chair in Seismology at SDSU. Rollin Eckis is former president of Richfield Oil Company and vice chairman of the board of Atlantic Richfield Company.

The first appointee to the Chair, Dr. Steven M. Day, conducts research on the mechanics of earthquakes and earthquake hazards.

The Major

Geology is the study of the earth, its composition, its history, and its constantly changing character.

Geologists study the origin and evolution of our planet; the chemical and physical properties of minerals, rocks, and fuels; the structure of our mobile crust - its newly forming ocean floors and its ancient, drifting continents; the history of life; and the human adaptation to earthquakes, volcanic eruptions, landslides, and floods. The subject matter of geology ranges from dinosaurs to the prediction of earthquakes.

Students who are curious about the planet on which we live, challenged by problems which involve the earth, and intrigued by the potential of a subject which combines the best of both the arts and sciences, should consider geological sciences as a major.

The employment outlook is favorable, particularly with engineering and toxic waste disposal firms and energy companies, and as public school teachers.

A geology graduate may be employed as one of the following professionals: hydrologist, geophysicist, geochemist, environmental scientist, oceanographer, teacher, research technician, geological surveyor, paleontologist, energy and resource explorer, and resource planner.

Geologists are primarily employed by private corporations, including petroleum, mining, construction, and quarry companies; and

government agencies, such as the U.S. Geological Survey, the U.S. Bureau of Mines, the U.S. Bureau of Reclamation, the California Department of Conservation, and regional planning offices. Students with graduate degrees are sought for teaching positions in secondary schools, community colleges and universities.

Geological Sciences Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 19141)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." All required upper division courses must be taken for letter grades only, not credit/no credit.

Courses to satisfy the requirement of 36 upper division units in the major may be selected from upper division geological sciences courses not explicitly excluded. Students may petition the department to include courses from other disciplines to complete the upper division major requirement.

A minor is not required with this major.

Option in Geology

Preparation for the Major. Geological Sciences 100, 101, 105, 221, 224, 230; Biology 100, 100L, or 101, 101L; Chemistry 200, 201; Mathematics 150 and 250; Physics 180A-180B and 182A-182B, or Physics 195, 195L, 196, 196L, 197, 197L. (48-52 units)

Recommended: Chemistry 410A-410B; Computer Science 107; Mathematics 151 and 252; Physics 195, 195L, 196, 196L, 197, 197L; a foreign language; and a course in mechanical drawing if not completed in high school.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units in approved courses to include Geological Sciences 305, 308, 498A-498B or 498A-498C, 506, 507, 508, 524, and either 525 or 530; at least one of the following: Geological Sciences 502, 505, 514, 520, 521, 526, 540, 550, 551; plus additional departmentally approved courses to complete a minimum of 36 upper division units for the major.

Option in Engineering Geology

Preparation for the Major. Geological Sciences 100, 101, 105, 221, 224; Biology 100 or 101; Chemistry 200, 201; Engineering Mechanics 200; Engineering 140; Mathematics 150, 151, and 252; Physics 195, 196, 197. (55 units)

Recommended: Civil Engineering 218; Physics 195L, 196L, 197L; a foreign language; and a course in mechanical drawing if not completed in high school.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 39 upper division units in approved courses to include Geological Sciences 305, 308, 330, 498A-498B or 498A-498C, 508, 514, 526, 550, 551; Civil Engineering 301, 462, 463; and one of the following: Geological Sciences 505, 530, 530L, 548, or Civil Engineering 465.

Because of the preparation in mathematics, physics, and geology called for in this emphasis, the College of Engineering will not require majors in this option to take the prerequisites specified for Civil Engineering 301, 462, and 463.

Option in Geochemistry

Preparation for the Major. Geological Sciences 100, 101, 105, 221, 224; Biology 100 or 101; Chemistry 200, 201, and 251; Mathematics 150, 151, and 252; Physics 195, 196, 197, 197L. (56 units)

Recommended: Computer Science 107; Physics 195L, 196L; a foreign language; and a course in mechanical drawing if not completed in high school.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 37 upper division units in approved courses to include Geological Sciences 305, 308, 498A-498B or 498A-498C, 508, 530, 530L; Chemistry 410A-410B; either Geological Sciences 506 and 526, or Geological Sciences 524 and 525; seven units of electives approved by the departmental adviser.

Option in Geophysics

Preparation for the Major. Geological Sciences 100, 101, 105, 221, 224; Biology 100 or 101; Chemistry 200, 201; Computer Science 107; Mathematics 150, 151, and 252; Physics 195, 196, 196L, 197, Engineering 280 must be taken if students select Engineering 510 in the major. (54 units)

Recommended: Physics 195L, 197L; a foreign language; and a course in mechanical drawing if not completed in high school.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 43-47 upper division units in approved courses to include Geological Sciences 305, 308, 330, 498A-498B or 498A-498C, 533, and 560; Mathematics 342A and 342B, or Engineering 510; Physics 311, 350; Physics 400A or Electrical Engineering 340; plus six units of approved courses in geological sciences at the 500 level.

Option in Marine Geology

Preparation for the Major. Geological Sciences 100, 101, 105, 221, 224; Biology 100 or 101; Chemistry 200, 201; Mathematics 150, 151, and 252; Physics 195, 195L, 196, 196L, 197, 197L. (53 units)

Recommended: Computer Science 107; a foreign language; and a course in mechanical drawing if not completed in high school.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units in approved courses to include Geological Sciences 305, 308, 498A-498B or 498A-498C, 508 (optional), 530, 530L, 540, 545, and four of the following courses: Geological Sciences 506, 524, 525, 526, 548, Biology 517; plus additional departmentally approved courses to complete a minimum of 36 upper division units for the major. Recommended: Chemistry 410A-410B for students anticipating postgraduate studies.

Option in Paleontology

Preparation for the Major. Geological Sciences 100, 101, 105, 221, 224; Biology 201, 202, 215; Chemistry 200, 201; Mathematics 150, or 121 and 122 (alternative of 121 and 122 should not be selected by students planning academic work beyond the B.S. degree); Physics 180A-180B and 182A-182B. (49-50 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units in approved courses to include Geological Sciences 305, 308, 498A-498B or 498A-498C, 506, 507, 508, 516, 526; two courses from the following: Biology 515, 517, 522; plus additional departmentally approved courses to complete a minimum of 36 upper division units for the major.

Option in Hydrogeology

Preparation for the Major. Geological Sciences 100, 101, 105, 221, 224; Biology 100 or 101 or 120; Chemistry 200, 201; Mathematics 150, 151, 252; Physics 195, 196, 197; choice of Mathematics 250 or Chemistry 230. (53-54 units)

Recommended: Biology 120; Physics 195L, 196L, 197L.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 38 upper division units in approved courses to include Geological Sciences 300, 305, 308, 330, 498A-498B or 498A-498C, 508, (or approved hydrogeology field course), 514, 526, 530, 530L, 551; Mathematics 342A and 342B, or 337 and 531, or Engineering 280 and 510, or Chemistry 410A and 410B (or approved upper division chemistry course).

Geological Sciences Minor

The minor in geological sciences consists of a minimum of 20 units in geological sciences, twelve of which must be in upper division courses, to include Geological Sciences 100, 101, 105; and twelve units selected from Geological Sciences 301, 302, 303, 305, 502, 506, 514. In addition, Geological Sciences 221, 224 and 230 are appropriate for geology minors.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Oceanography Minor

For a listing of requirements refer to the section of this catalog on Oceanography.

Courses**LOWER DIVISION COURSES****100. Dynamics of the Earth (3) I, II
(100 + 101: CAN GEOL 2)**

Geological processes that shape our planet. Plate tectonics used as framework to explore volcanoes, earthquakes, mountain building, glaciers, time resources, and environmental issues. Not open to students with previous credit in geological sciences.

**101. Dynamics of the Earth Laboratory (1) I, II
(100 + 101: CAN GEOL 2)**

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Geological Sciences 100.

Hands-on experience with land forms, rocks, minerals, topographic maps, and aerial photographs. Includes demonstrations and field trips. Designed to accompany and augment Geological Sciences 100. Not open to students with previous laboratory credit in geological sciences.

105. Historical Geology (4) I, II (CAN GEOL 4)

Three lectures and three hours of laboratory. Arrangement for field study during the semester.

Prerequisites: Geological Sciences 100 and 101.
Theories of earth origin, and the evolutionary history of the earth as traced through rock and fossil records. Consideration of the paleontologic sequence.

201. Computer Applications in Geology (2)

Six hours of laboratory.
Programming and applications software fundamental to geological sciences. Applications software will include DOS, Windows, and Macintosh operating systems, word processing, spreadsheets, graphing, contouring, and drawing. Introduction to Internet and overview of geology-specific software.

221. Mineralogy (4) I, II

Three lectures and three hours of laboratory.

Prerequisites: Credit or concurrent registration in Geological Sciences 100 and 101; high school chemistry and trigonometry, or credit or concurrent registration in college chemistry and trigonometry.

Practice in the determination of the common minerals; their geologic environment, utilization and economic significance.

224. Petrology (3) I, II

Two lectures and three hours of laboratory.

Prerequisites: Geological Sciences 100, 101, and 221.

The origin, occurrence, identification, and classification of rocks in hand specimen.

230. Introduction to Geophysics (3) I, II

Prerequisites: Geological Sciences 100 and 101; a course in college physics.

Application of classical physics to gravitational, magnetic, seismic, earthquake, and thermal characteristics in defining the structure and dynamics of the earth. Not open to students with credit in Geological Sciences 510 or 512.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

**UPPER DIVISION COURSES
(Intended for Undergraduates)****300. Computer Applications to Geology (3)**

Two lectures and two hours of laboratory.

Prerequisites: Geological Sciences 221 and 230; Mathematics 150 and 250.

Instruction in DOS personal computers and data manipulation using word processing, spreadsheets, and plotting. Supporting geological sciences theory presented with the solution of quantitative problems in geophysics, hydrology, sedimentology, and geomorphology.

301. Geology of National Parks and Monuments (3) I, II

Prerequisites: Geological Sciences 100, and completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Geology of a group of national parks and monuments, selected for their geological significance, scenic beauty, and visitor popularity. Not acceptable for a major in geological sciences but acceptable for a minor in geological sciences.

302. Fossils: Life Through Time (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Traditional and recently discovered aspects of history of life on earth. Topics from the origin of life to extinctions.

303. Natural Disasters (3) I, II

Prerequisite: Geological Sciences 100 or completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Geologic processes that have dramatically affected the human race: earthquakes, volcanoes, landslides, and floods. Not acceptable for a major in geological sciences but acceptable for a minor in geological sciences.

304. Planetary Geology (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning. Recommended: Geological Sciences 100.

Structure, evolution, and surface features of planets from a geological point of view. Insights gained into origin and evolution of planetary bodies provide greater understanding of how planet earth operates and why it is unique. Not acceptable for a major in geological sciences.

305. Structural Geology (3) I, II

Two lectures and three hours of laboratory per week with occasional field trips.

Prerequisites: Geological Sciences 105 and trigonometry.

Structural features of the earth, both deformational and primary. Mechanical principles, causes of folding and faulting, graphic solutions and analyses.

308. Introductory Field Geology (4) I, W

One lecture and three hours of laboratory plus a minimum of 18 days in the field. Fieldwork will be pursued either on weekends during semester, or at a field camp during the month of January (intersession); students should enroll in either the Fall or Winter session during the Fall semester.

Prerequisites: Geological Sciences 224 and 305.

Techniques of geologic observation, data collections, and interpretation; preparation of geologic maps, sections, and reports. Students are responsible for food and transportation.

330. Geophysical Prospecting (3) I

Two lectures and three hours of laboratory. Occasional field trips.

Prerequisites: Geological Sciences 100 and 101, or Civil Engineering 253; Mathematics 150; Physics 196.

Elementary theory and basic field practices, data reduction, and interpretation of gravity, magnetic, seismic, resistivity, and electromagnetic surveys in economic applications.

496. Selected Topics in Geology (1-4) I, II

Prerequisite: Consent of instructor.

Selected topics in geology and related earth sciences. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

498A. Senior Seminar (1) Cr/NC I, II

Prerequisite: Senior standing in geological sciences.

Preparation of written and oral scientific reports and attendance at departmental seminars.

498B. Senior Thesis (2) I, II

Prerequisites: Geological Sciences 498A and consent of instructor.

Individual research project, written thesis, and oral presentation. Must be completed by students desiring to graduate with distinction in the major.

498C. Senior Presentation (2) I, II

Prerequisite: Geological Sciences 498A.

Oral and written critiques of geological literature and seminar presentations.

499. Special Study (1-3) I, II

Prerequisites: Acceptable grade average in at least 12 upper division units within the major and consent of staff.

Individual study in field, library, laboratory, or museum work. Maximum credit four units.

**UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)****502. Geology of North America (3) I**

Prerequisite: Geological Sciences 105.

A regional analysis of North American geology, its structural, stratigraphic, and tectonic patterns and hypotheses concerning their origin and evolution.

505. Photogeology (3) II

Two lectures and three hours of laboratory.

Prerequisites: Geological Sciences 305 and 514.

Geologic interpretation of aerial photographs, elementary stereoscopy and stereometry applied to structural and stratigraphic problems; and compilation of geologic maps from annotated aerial photographs.

506. Paleontology (3) I, II

Two lectures and three hours of laboratory.

Prerequisites: Geological Sciences 105 and either Biology 100-100L or 101-101L.

Principles and methods, exemplified by a study of the morphology, classification, habit, and geologic significance of fossil invertebrates.

507. Stratigraphy (3) II

Two lectures and three hours of laboratory.

Prerequisites: Geological Sciences 105 and 224.

Stratigraphic principles and practices. Consideration of the North American stratigraphic record.

508. Advanced Field Geology (4) II (4 or 6) S

One lecture and three hours of laboratory plus 24 days in the field. For the summer option with six units: two additional weeks of field or laboratory work. Either Spring or Summer session can be enrolled in during the Spring semester.

Prerequisites: Geological Sciences 308 and 524.

Investigation of individually assigned areas, preparation of geologic maps, geologic sections, and gathering other types of data, e.g., petrologic, geophysical, or paleontologic, as appropriate. Students are responsible for cost of food and transportation.

514. Process Geomorphology (3)

Two lectures and three hours of laboratory.

Prerequisite: Geological Sciences 305.

Processes shaping and affecting the earth's surface, and application of resultant land forms in interpretation of geologic structure, stratigraphy and neotectonics. (Formerly numbered Geological Sciences 314.)

516. Micropaleontology (3) II

Two lectures and three hours of laboratory.

Prerequisite: Geological Sciences 506.

The morphology, classification and geologic significance of the various microfossils.

520. Ore Deposits (3) I

Prerequisites: Geological Sciences 224 and 305.

Geologic relations, origin, distribution, and economics of metallic and nonmetallic mineral deposits.

521. Petroleum Geology (3) II

Prerequisites: Geological Sciences 224 and 305.

Geologic occurrence of petroleum and the application of geologic principles in exploration and production.

524. Optical Mineralogy (3) I

Two lectures and three hours of laboratory.

Prerequisite: Geological Sciences 221.

Theory and use of the polarizing microscope for determining optical properties of minerals as an aid to their identification.

525. Petrography (3) II

Two lectures and three hours of laboratory.

Prerequisite: Geological Sciences 524.

A study of rocks with the polarizing microscope; identification of mineral constituents; interpretation of textures; classification of rocks; problems of genesis.

526. Sedimentology (3) I

Two lectures and three hours of laboratory.

Prerequisites: Geological Sciences 105 and 224.

Origin, description, and interpretation of sedimentary rocks and structures.

528. Seismic Stratigraphy (3) I

Two lectures and three hours of laboratory.

Prerequisites: Geological Sciences 230, 305, and 507.

Principles involved in shooting, processing, and interpreting seismic reflection profiles. Laboratory exercises with stratigraphic interpretations from reflection data.

530. Geochemistry (2) I, II

Prerequisites: Geological Sciences 224; Chemistry 201; Mathematics 121 and 122, or 150.

The relationship of basic chemical principles to geologic phenomena and environments, including applications to geologic exploration problems.

530L. Geochemistry Laboratory (1) I, II

Prerequisite: Credit or concurrent registration in Geological Sciences 530.

Laboratory methods of analysis for determination of elemental concentrations in waters, sediments, and rocks, as well as x-ray diffraction methods for mineralogy.

533. Geophysical Analysis (3)

Two lectures and three hours of laboratory.

Prerequisites: Geological Sciences 330, Mathematics 252, Physics 197. Recommended: Physics 195L, 196L, 197L.

Analog and digital data collection, processing, modeling and error estimation. Computer-aided examples and field tests from seismics, gravity, magnetics, and electromagnetics including magnetotellurics. Not open to students with credit in Geological Sciences 510 or 512.

540. Marine Geology (3) I

Prerequisites: Geological Sciences 105, and either Geological Sciences 224, 502, 506, or 514.

Plate tectonic origin and history of the ocean basins. Formation and distribution of sediments in response to biological, chemical, and geological processes.

545. Descriptive Physical Oceanography (3) I

Prerequisites: Mathematics 121 and 122, or 150; Physics 180A or 195.

Physical environment of oceans including heat, water, and salt budgets, physical properties of sea water, sea ice, air-sea relationships, effects of light and sound, distribution of temperature, salinity, density, surface current, deep circulation, water mass formation, instruments and methods of study.

548. Coastal and Estuarine Physical Oceanography (3) II

Prerequisites: Mathematics 121 and 122, or 150; Physics 180A or 195.

Physical processes of marine coastal areas and estuaries. Includes longshore currents, rip currents, real waves in shallow water, wave refraction and diffraction, mechanics of sediment transport, forces and dynamics of estuarine circulations and tides.

550. Engineering Geology (3) II

Two lectures and three hours of laboratory.

Prerequisite: Geological Sciences 305.

Relationships between geologic processes and works of humans. Topics include rock and soil mechanics, ground water flow, slopes stability, seismicity, land subsidence, and evaluation of geologic materials with respect to dam sites, tunnel alignments, and building foundations.

551. Hydrogeology (3) I

Two lectures and three hours of laboratory.

Prerequisites: Geological Sciences 305 and Mathematics 150.

Theory of ground water flow. Exploration for and development of the ground water resource. Aquifer tests, water quality, and water resource management. Occurrence of water in alluvial, sedimentary, volcanic, plutonic, and metamorphic terrains.

552. Field and Laboratory Techniques in Hydrogeology (4)

One lecture and nine hours of laboratory.

Prerequisites: Geological Sciences 551 and credit or concurrent registration in Geological Sciences 530.

Use and application of common field and laboratory techniques in hydrogeology. Exercises include drilling, coring, and sediment sampling, aquifer testing, unsaturated zone monitoring, fluid level measurement, tracer testing, laboratory measurement of permeability, capillarity, and analysis of inorganic and organic constituents in groundwater.

560. Earthquake Seismology (3)

Two lectures and three hours of laboratory.

Prerequisites: Mathematics 252, Physics 197. Recommended: Mathematics 342A.

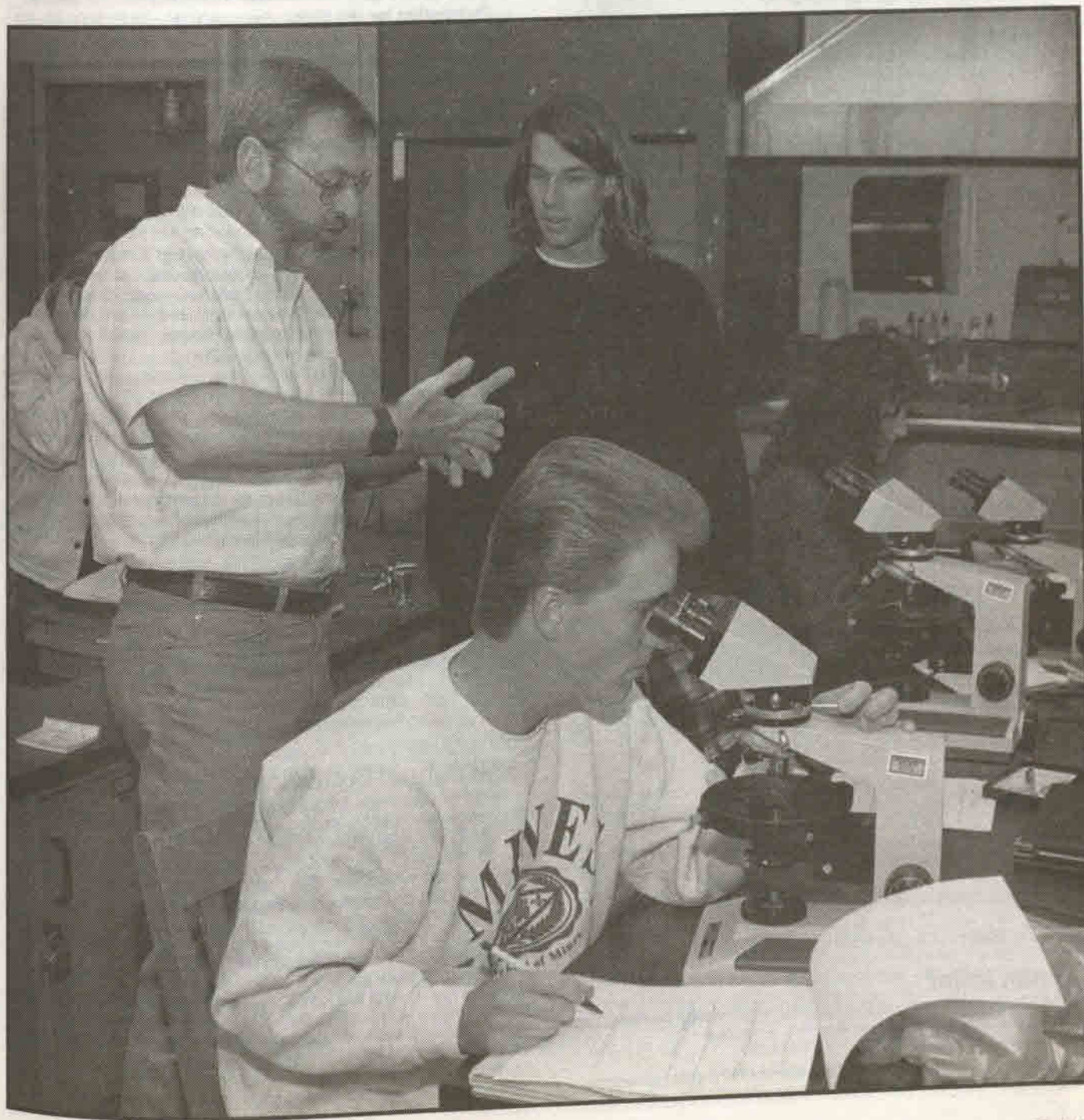
Theory of seismic wave excitation, propagation, and recording. Methods of seismogram interpretation and analysis. Applications to tectonics and earthquake hazard analysis.

596. Advanced Topics in Geology (1-4)

Prerequisite: Consent of instructor.

Advanced special topics in the geological sciences. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.



German

In the College of Arts and Letters

Faculty

Emeritus: Boney, Dunkle, Lawson, Paulin, Wulbern
Acting Chair: Benkov
Professor: Skwara
Associate Professor: Wauchope

Offered by the Department of German and Russian Languages and Literatures

Major in German with the B.A. degree in liberal arts and sciences.
Teaching major in German for the single subject teaching credential in foreign languages.
Minor in German.

The Major

The German language is widely spoken in many countries today. It is also a primary language of scholarship in such diverse fields as chemistry, medicine, military science, history, linguistics, art, physics, electronics, photography, and the natural sciences.

Students who major in German will gain proficiency in German language skills, and the department offers a broad variety of courses designed to prepare majors for a number of careers after graduation. A major in German is also a good preparatory curriculum for graduate programs in such areas as international trade, international law, librarianship, public administration, and journalism.

A knowledge of German is a valuable asset in finding positions as interpreters and translators employed by the federal government, the United Nations, international conferences, trade councils, and publishers, as well as with internationally oriented companies, government agencies, the press corps, and the tourism industry.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

German Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 11031)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in German courses can apply to the degree.

Students majoring in German must complete a minor in another field to be approved by the departmental adviser in German.

Preparation for the Major. German 100A, 100B, 200, 201, 202, and 210. (22 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major.

Major. A minimum of 24 upper division units to include German 301, 310, 420, and 15 units in upper division German which may include Comparative Literature 571 (content: *Faust*).

German Major

For the Single Subject Teaching Credential in Foreign Languages
With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 11031)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or

OFFICE: Business Administration 304

TELEPHONE: (619) 594-6313

Teacher Education. For students completing the single subject teaching credential program, no more than 48 units in German courses can apply to the degree.

This major may be used by students in policy studies or teacher education as an undergraduate major for the B.A. degree in liberal arts and sciences. A minor in another field approved by the departmental adviser in German is required for the degree.

Preparation for the Major. German 100A, 100B, 200, 201, 202, and 210. (22 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major.

Major. A minimum of 27 upper division units in German to include German 301, 304, 310, 420, 505, and 12 upper division units in German.

Proficiency Examination: Before taking a student teaching assignment in German, the candidate for the credential may be required to pass an oral and written proficiency examination in the language, administered by the Department of German and Russian Languages and Literatures. The candidate should consult the chair of the department.

German Minor

The minor in German consists of a minimum of 15 units in German, nine of which must be in upper division courses in the language completed at San Diego State University.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of German to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete German 200, 201, or 202 or the equivalent level of achievement. The usual sequence of coursework is German 100A, 100B, and 200, 201, or 202. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. **Four years** of high school level language count as the equivalent of three college semesters, thus fulfilling the foreign language requirement.

Courses

LOWER DIVISION COURSES

Native speakers of German will not receive credit for taking lower division courses in German except with advance approval from the department.

All lower division courses in German are taught in German.

No credit will be given for German 100A, 100B, and 201 or 202, and 301 taken out of sequence.

100A. First Course in German (5) I, II

Pronunciation, oral practice, readings on German culture and civilization, minimum essentials of grammar. Not open to students who have completed three years of high school German unless the third course was completed five or more years ago.

100B. Second Course in German (5) I, II

Prerequisite: German 100A or two years of high school German.
Continuation of German 100A. Not open to students who have completed four years of high school German unless the fourth course was completed five or more years ago.

200. German for Oral Proficiency (3)

Three lectures and one hour of laboratory.
Prerequisite: German 100B or three years of high school German.
Practice in spoken language with emphasis on articulation of German sounds; use of modern German through study of cultural materials for proficiency in oral communication. Recommended for students wanting to satisfy the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences. Not open to students with credit in German 211. (Formerly numbered German 211.)

201. Intermediate German Grammar (3)

Prerequisite: German 100B or three years of high school German.
Survey of German grammar at intermediate level within framework of communication-based instruction. Emphasis on improving linguistics accuracy in both spoken and written language. May be taken concurrently with German 200 and/or German 202. Not open to students with credit in German 200A. (Formerly numbered German 200A.)

202. German for Reading Comprehension (3)

Prerequisite: German 100B or three years of high school German.
Reading in German with emphasis on comprehension. Not open to students with credit in German 200B. (Formerly numbered German 200B.)

210. Writing German (3)

Prerequisite: German 201.
Practice in German language skills at intermediate level with emphasis on writing of paragraphs and short essays. Discussions in German. May be taken concurrently with German 200 and/or 202.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES

(Intended for Undergraduates)

All upper division courses in German are taught in German unless otherwise stated.

301. Grammar and Composition (3)

Prerequisites: German 200, 201, 202, 210; and completion of the General Education requirement in Foundations II.C., Humanities required for non-majors. **Proof of completion of prerequisites required:** Copy of transcript.

Grammar and stylistics; intensive writing practice; reports based on outside reading.

303. Business German (3)

Three lectures and one hour of laboratory.
Prerequisites: German 301 and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.
German language and culture within context of German business and economics. Extensive readings and listening comprehension exercises. Practice in both speaking and writing German.

304. Phonetics of Spoken German (3)

Prerequisites: German 200, 201, 202, and 210.
Sounds and intonation of German. (Formerly numbered German 510.)

310. Introduction to German Literature (3)

Prerequisites: German 200, 201, 202, and 210; and completion of the General Education requirement in Foundations II.C., Humanities required for non-majors. **Proof of completion of prerequisites required:** Copy of transcript.

Introduction to literary study in German, with selected readings representative of different periods and genres.

420. German Civilization (3) I, II

Prerequisites: German 200, 201, 202, and 210. **Proof of completion of prerequisites required:** Copy of transcript.

Culture of past and present with emphasis on creative achievements of German people in visual arts, music, philosophy, and letters. Taught in German.

496. Experimental Topics (1-4)

Prerequisites: German 310 (for literary topics) or 301 (for linguistics topics).

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisites: Fifteen upper division units in the major with an average of B (3.0) or better and consent of instructor. **Proof of completion of prerequisites required:** Copy of transcript.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)

501. Translation (3)

Prerequisite: German 301.
Translation of a variety of texts from German to English and English to German.

505. Applied German Linguistics (3)

Prerequisite: German 301 or consent of instructor.
Linguistic study of modern German; integration of modern linguistic theory with the language classroom.

520. Modern German Literature (3)

Prerequisite: German 310.
Major authors and genres since Sturm Und Drang.

530. Topics in German Literature (3)

Prerequisite: German 310.
Study of a movement, theme or genre of German literature, such as romanticism, literature and film, literature of the holocaust, women's literature, literature of the German democratic republic in retrospect. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

596. Topics in German Studies (3)

Prerequisite: German 310 (for literary topics) or 505 (for linguistic topics). **Proof of completion of prerequisite required:** Copy of transcript.

Topics in German language, literature, or linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to the Graduate Bulletin.

Gerontology

In the College of Health and Human Services

Faculty

Gerontology is a multidisciplinary program administered through the University Center on Aging. Faculty assigned to teach courses in gerontology are drawn from the Departments of Anthropology, Psychology, Recreation, Parks and Tourism, and Sociology; the School of Social Work; and the Colleges of Arts and Letters, Education, Health and Human Services, and Professional Studies and Fine Arts.

Director: Stanford
Professor: Stanford
Lecturer: DuBois

Offered by Gerontology

Major in gerontology with the B.A degree in liberal arts and sciences.

Minor in gerontology.

Certificate in applied gerontology (offered only in Extension).

The Major

Gerontology concerns itself with the study and application of knowledge about the physical, social, and economic conditions of older people. Since the process of aging touches all aspects of human activity, gerontology is multidisciplinary in nature. Gerontology is becoming a major area of research in the biological, behavioral, and social sciences.

Every day there is a net increase of 1,000 Americans 65 years of age and over. This is an increase of more than 3,500,000 elderly persons per year. With this striking increase has come a growing need for more trained professionals to apply new knowledge about the elderly. Such knowledge is needed for planning and developing programs and services which improve the quality of life for older Americans.

Gerontological training and research is an important link in meeting the social, physical, and psychological needs of the elderly. Students of gerontology benefit through the personal understanding of their own aging process. Those wishing to pursue careers in aging will find many exciting opportunities for serving the elderly in a variety of settings.

One of the primary goals of the gerontology program is to provide students with a broad base for comprehensive understanding of the impact of society's changing demographics on every aspect of their social and work lives. It is through research, teaching, and community involvement that faculty members from numerous disciplines provide for the intellectual development of students, the enhancement of community programs, and the assurance of a better quality of life for older people in the community, the state, and the nation.

Advising

All College of Health and Human Services majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Gerontology Major

With the B.A Degree in Liberal Arts and Sciences
Major Code: 21043

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in gerontology courses can apply to the degree.

A minor is not required with this major.

OFFICE: Hepner Hall 203
TELEPHONE: (619) 594-6989

Preparation for the Major. Gerontology 101, 250; Biology 100; Community Health Education 101; Family Studies and Consumer Sciences 135; Psychology 101; and Social Work 110. (21 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to the section of the catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Gerontology 350, 360, 370, 400A, 400B, 520; Psychology 350; Recreation 580; Social Work 420*; Sociology 350 or 527; and six units selected with approval of the adviser from Anthropology 509; Child and Family Development 335 and 381; Communicative Disorders 580; Gerontology 496 and 596 (when appropriate); and Physical Education 433.

* Prerequisites waived.

Gerontology Minor

The minor in gerontology consists of a minimum of 18 units to include Psychology 350, Sociology 350 or 527; and 12 units selected from Gerontology 101, 350, 360, 370, 400A, 400B; Anthropology 509; Communicative Disorders 580; Family Studies and Consumer Sciences 496*; Physical Education 433; Recreation 580; Social Work 120, 420; Sociology 496*; and Women's Studies 521.

Additional prerequisites may be required for the courses in the minor.

Courses in the minor may not be counted toward the major or the certificate, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

* When relevant.

Certificate in Applied Gerontology

(Offered only in Extension)

This program is designed for persons working in the field of aging as well as those interested in obtaining employment in the aging field. Completion of the certificate program will enable participants to assume greater responsibility by broadening their knowledge of and skill in this specialty area. More specifically, the program is designed to provide the following:

1. A broad knowledge base in the bio-psycho-social aspects of aging.
2. Practical knowledge and skills in the application of this information towards services for older people.
3. Knowledge of government programs and program planning and evaluation techniques.
4. Knowledge of programs and services operating in local areas as well as gaps which exist in local programming.
5. Knowledge and skills needed to function in an advocacy capacity to improve services to the elderly.

Certificate Requirements:

1. Complete 18 semester units of coursework with a grade point average of 2.0 or better.
2. Complete coursework within four years after admission to the program.

3. Petition the University Center on Aging for the certificate upon completion of 18 semester units.

To be admitted to the program, students are expected to show by previous coursework and/or experience some evidence of potential for completing the academic program. Previous courses in gerontology taken at SDSU or at other universities will be considered for credit toward certification on an individual basis, but not to exceed nine units.

The center is responsible for the coordination of the certificate program in conjunction with the College of Extended Studies. Admission applications may be obtained from the University Center on Aging. Applications may be submitted prior to entering the program or before the completion of nine semester units of coursework.

Students are required to submit an Open University Registration Form each semester to the College of Extended Studies.

Students accepted into the program will be assigned an adviser by the University Center on Aging.

Required Courses for the Certificate Program

A minimum of 12 semester units must be selected from the following five areas inclusive of the practicum:

I. Introduction to Gerontology

Gerontology 101. Introduction to Human Aging (3)

II. Biological and Health Aspects of Aging

Anthropology 509. Culture and Biological Aging (3)

III. Psychological Aspects of Aging

Psychology 350. Abnormal Psychology (3)

IV. Sociological Aspects of Aging

Gerontology 250. Intergenerational Issues and the Elderly (3)

Gerontology 350. Social Policy and Aging (3)

V. Practicum

Gerontology 400A-400B. Practicum in Gerontology (3) (Cr/NC)

Elective Courses

A minimum of six semester units selected from the following:

Gerontology 360. Minority and Ethnic Aging (3)

Gerontology 370. Images of Aging in Contemporary Society (3)

Gerontology 496. The Aging Network (3)

Gerontology 499. Special Study (1-3)

Gerontology 520. An Inside Look at Aging Programs-Program

Analysis (3)

Gerontology 596. Advanced Special Topics in Gerontology (1-4)

Recreation 580. Leisure and the Aging Process (3)

Women's Studies 521. Life Cycles of Women (3)

Courses

LOWER DIVISION COURSES

101. Introduction to Human Aging (3) I, II

Overview of the field of gerontology, including demographic trends, basic theories, concepts and philosophic ideas, social policies, planning issues, and services available to meet the needs and problems of the aged.

250. Intergenerational Issues and the Elderly (3)

Controversial issues surrounding interpersonal relations between the aged and other age groups.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

350. Social Policy and Aging (3) II

Prerequisite: Gerontology 101.

Philosophical and practical gerontological knowledge for the operation of health and human service organizations. Multiprofessional perspective of policies, services, and administrative techniques.

360. Minority and Ethnic Aging (3) I

Prerequisite: Gerontology 101.

Attitudes and cultural values related to aging members of ethnic minorities. Major social and psychological theories on aging as they relate to ethnic minority elderly. Impact of class, economic resources, and health on the aging process.

370. Images of Aging in Contemporary Society (3) II

Prerequisite: Gerontology 101.

Images of older persons in our society. Influence of films, newspapers, radio, television, books and magazines, and a wide range of advertising mechanisms.

400A-400B. Practicum in Gerontology (3-3) Cr/NC I, II

Twelve hours of laboratory.

Prerequisites: Gerontology 350, 360, 370.

Integration of theoretical background and practical experience in providing services to elderly. Fieldwork and observation in settings providing services to the elderly. Direct experience in aging projects relevant to their field of interest.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3)

Prerequisite: Consent of department chair.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

520. Analysis of Programs for the Aging (3)

Prerequisite: One upper division course in gerontology.

Major programs in aging that support daily functioning of elderly. Effectiveness of programs in serving today's elderly with attention to ethnic and cross-cultural variations.

596. Advanced Special Topics in Gerontology (1-4) I, II

Advanced selected topics in gerontology. May be repeated with new content. See Class Schedule for specific content. Maximum credit of six units for any combination of 496, 499, 596 applicable to a bachelor's degree.

Health Science

Refer to "Community Health Education" in this section of the catalog.

Hebrew

In the College of Arts and Letters

OFFICE: Business Administration 327
TELEPHONE: (619) 594-5268

Faculty

Chair: Underhill
Professor: Bar-Lev

Offered by the Department of Linguistics and Oriental Languages

Courses in Hebrew.
Major or minor work in Hebrew is not offered.

Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Hebrew to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Hebrew 201 or the equivalent level of achievement. The usual sequence of coursework is Hebrew 101 (with 100), 102, and 201. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.
2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.
3. **Four years** of high school level language count as the equivalent of three college semesters, thus fulfilling the foreign language requirement.

Courses

LOWER DIVISION COURSES

All lower division courses in Hebrew are taught in Hebrew.

No credit will be given for Hebrew 101, 102, 201 taken out of sequence.

100. Hebrew Alphabet (1)

Study of Hebrew alphabet; practice with reading and comprehending whole texts (without vowels), as well as pronouncing. Intended for students of Hebrew 101 who have not previously studied the alphabet. May also be taken without Hebrew 101.

"It is not enough to have a good mind; the main thing is to use it well."

—René Descartes (1637)

101. Elementary Hebrew I (3) I

Three lectures and one hour of laboratory.
Beginning reading, writing, and conversational skills. Essentials of grammar. Not open to students who have completed three years of high school Hebrew unless the third course was completed five or more years ago.

102. Elementary Hebrew II (4) II

Four lectures and one hour of laboratory.
Prerequisite: Hebrew 101.
Continuation of Hebrew 101. Not open to students who have completed four years of high school Hebrew unless the fourth course was completed five or more years ago.

201. Intermediate Hebrew (4) I

Four lectures and one hour of laboratory.
Prerequisite: Hebrew 102.
Continuation of Hebrew 102. Applications of grammar and reading skills. Additional practice in conversation.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division courses in Hebrew are taught in Hebrew unless otherwise stated.

496. Topics in Hebraic Studies (1-4)

Topics in Hebraic language, literature, culture, and linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit eight units.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

OFFICE: Adams Humanities 4210

TELEPHONE: (619) 594-5262

Faculty

Emeritus: Filner, Hanchett, Munter, Norman, Pincett, Rader, Rohlfisch, Ruetten, Schatz, Smith, C., Strong, Vanderwood, Webb
Chair: DuFault

The Nasatir Professor of Modern Jewish History: Baron
The Dwight E. Stanford Chair in American Foreign Relations: Heinrichs

Professors: Cheek, Chu, Coox, Cox, Cuniff, Davies, Dunn, Ferraro, Hamilton, Heyman, Hoidal, Kushner, McDean, O'Brien, Peterson, Smith, R., Starr, Steele, Stites, Stoddart, Vartanian

Associate Professors: Bartholomew, Colston, DuFault, Flemion, Kornfeld, Oades, Polich, Roberts

Assistant Professor: Colwill

Offered by the Department

Master of Arts degrees in history; and a Master of Arts degree for teaching service with a concentration in history.

Major in history with the B.A. degree in liberal arts and sciences.
Minor in history.

The Nasatir Professor of Modern Jewish History

The Nasatir Professorship was established in honor of the late Professor Abraham Nasatir, a specialist in European colonial history in North America. Nasatir taught history at SDSU for 46 years and was active in the community as an advocate of Jewish education. The Professorship is now held by a distinguished scholar of European intellectual history and Holocaust studies, Lawrence Baron, director of SDSU's Lipinsky Institute for Judaic Studies.

The Dwight E. Stanford Chair in American Foreign Relations

A gift from alumnus Dwight E. Stanford, who earned a bachelor's degree in American history in 1936 from San Diego State College (now SDSU), established The Dwight E. Stanford Chair in American Foreign Relations. The first holder of the Chair is Waldo Heinrichs, an internationally distinguished scholar-teacher who is an expert in twentieth-century American foreign relations with Pacific Rim countries, especially with those in Asia.

The Major

History is the study of humanity's recorded past. It encompasses almost all aspects of human activity and behavior. The arts and sciences, technology and economics, ideology and social attitudes are all as much a part of history as politics and war.

History is the most universal of the humanities. It is not merely a body of facts to be learned, but is a series of arguments and points of view to be debated. Study of the ideas, attitudes, and actions of peoples in the past helps to sharpen a person's own sense of values, offering moral lessons in the search for a global future of creative achievement and international peace. It also helps to cultivate a more tolerant and compassionate spirit toward peoples whose way of life may be different from one's own.

The excellent training in basic skills and the broad range of information students receive in history courses prepare history majors for a wide variety of careers in law, government, politics, journalism,

History

In the College of Arts and Letters

publishing, and public history. Teaching at the high school, community college, or university level offers increasing opportunities for history majors in the future.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

History Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22051)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in history courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Twelve units selected from two of the following sequences: History 100-101; 105-106, 110A-110B; 115A-115B.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. History 430W with a grade of C (2.0) or better.

Major. A minimum of 30 upper division units in history to include History 430W and a minimum of six units in each of three of the following fields: (a) Ancient, Medieval and Early Modern Europe; (b) Modern Europe; (c) United States; (d) Latin America; (e) South, Southeast, and East Asia; (f) Africa and the Middle East; (g) Topical Subjects; plus nine units of electives. It is the student's obligation to determine which courses fulfill his/her field requirements.

History Minor

The minor in history consists of a minimum of 18 units in history to include six sequential units in the lower division. Twelve units must be in upper division history, distributed in no more than two of the fields listed under the history major.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

History Honors Thesis

The department offers undergraduates of superior achievement the opportunity to write a history honors thesis leading to special recognition upon graduation. History 490, Senior Honors Thesis, is open to students who rank in the top twenty percent of senior history majors and who have successfully completed History 430W. Interested students should consult the undergraduate adviser in the History Department.

Courses

LOWER DIVISION COURSES

100. World History (3)

The growth of civilizations and the interrelationships of peoples of Europe, Asia, Africa, and America to 1650.

101. World History (3)

Modern history from a global perspective, 1650 to the present.

105. Western Civilization (3) (CAN HIST 2)

Development of European culture, thought and institutions from ancient times through the seventeenth century. Not open to students with credit in History 305A.

106. Western Civilization (3) (CAN HIST 4)

Development of modern societies and states to the present day. Not open to students with credit in History 305B.

110A-110B. American Civilization (3-3) (110A: CAN HIST 8) (110B: CAN HIST 10)

Political and social development of the United States, with emphasis on American civilization and ideals. History 110A: From colonial period to 1877. History 110B: Since 1877. Primarily for lower division students. This year course satisfies the graduation requirement in American Institutions.

115A-115B. Comparative History of the Americas (3-3)

Western hemisphere from ancient times to present, with focus on interactions among European, American Indian, and African-American cultures, institutions, and traditions. History 115A: Ancient American civilizations, European colonial systems, creation of new nations. History 115B: Nations and cultures of the Americas since independence. This year course satisfies the graduation requirement in American Institutions.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)**305A-305B. Sources of Western Civilization (3-3)**

Prerequisites: Open only to upper division students, and completion of the General Education requirement in Foundations II.C., Humanities.

Important ideas and attitudes which have shaped Western civilization since ancient times. Emphasis on cultural themes rather than a political continuum. History 305A: Origins of Western civilization through the seventeenth century. History 305B: Western civilization from the seventeenth century to the present. Not open to students with credit in History 105 and 106. May not be used to satisfy requirements for the major or minor.

308. History of Britain (3) II

Prerequisite: Upper division standing.

Survey of British history from its origins to the contemporary age. Emphasis on political institutions, religion, society, economy, the arts. Not open to students with credit in History 408A or 408B; cannot satisfy requirements for the major or minor; offered only in London Semester program.

310A-310B. United States History (3-3)

Survey of American history. History 310A: From colonial period to 1877. History 310B: Since 1877. Designed primarily for students seeking upper division elective or graduation requirement in American Institutions. Not open to students with credit in History 110A or 110B. May not be used to satisfy requirements for the major or minor.

430W. The Writing of History (3) I, II

Prerequisites: Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Historical method and research in some aspect of history. (Formerly numbered History 430.)

490. Senior Honors Thesis (3) I, II

Prerequisite: History 430W; open to history majors with senior standing and permission of the honors thesis adviser.

Directed research on a historical topic chosen in consultation with the honors adviser, and completion of a senior honors thesis. Required of students wishing to graduate with a certificate of recognition in history.

499. Special Study (1-3) I, II

Prerequisite: Consent of department chair and instructor. Individual study. Maximum credit six units.

Field (a). Ancient, Medieval, and
Early Modern EuropeUPPER DIVISION COURSE
(Intended for Undergraduates)**496. Issues in History (1-4)**

Refer to Field (g). Topical Subjects.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)**500A-500B. Ancient History (3-3)**

Semester I: Greece to the Roman Conquest. Semester II: Rome to the fifth century A.D.

501. History of Ancient Near Eastern Civilizations (3)

Major civilizations of Near East from the origin of civilization to Roman Conquest, including Egyptians, Babylonians, Hebrews and Persians. Social, political, and religious problems.

503A-503B. Europe in the Middle Ages (3-3)

European social, cultural, and political developments from the fall of Rome to the Renaissance.

506. The Renaissance (3)

The intellectual, artistic, and social transformation of Europe from the fourteenth through the early sixteenth century.

507. The Reformation (3)

Continental Europe in the sixteenth century; split of Christendom, the religious wars, national rivalries, the expansion of Europe and the beginnings of the scientific revolution.

513A. Early Scandinavia (3)

The formation and development of the Scandinavian kingdoms from the Viking Age to the end of the Napoleonic Wars.

Field (b). Modern Europe

UPPER DIVISION COURSES
(Intended for Undergraduates)**407A-407B. Modern Europe (3-3) I, II**

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

History of Europe from the Renaissance to the present. Social, economic, and intellectual trends, the development of the nation-state, and the reasons for continental conflict. Semester I: The Renaissance to 1789. Semester II: The French Revolution to contemporary times. Required for the teaching credential in history.

496. Issues in History (1-4)

Refer to Field (g). Topical Subjects.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)**509. Europe in the Seventeenth Century (3)**

Continental Europe from 1600 to the death of Louis XIV. Shift of power from southern and central Europe to northern Atlantic countries; the growth of the state, and the expansion of commerce.

510. Europe's Age of Enlightenment (3)

Prerequisite: Upper division standing.

Selected problems in the social, cultural, and intellectual history of the eighteenth-century Enlightenment. (Formerly numbered History 510A-510B.)

511A. The Age of European Revolution (3)

Major economic, social, intellectual, and political changes in Europe from 1789 to 1848. Effects of French Revolution, Industrial Revolution, and Romanticism on European history.

511B. The Age of Nationalism in Europe (3)

Economic, social, and intellectual developments in Europe from 1848 to 1890 that contributed to the age of nation building.

512A. The Great War: A Turning Point in European History (3)

Forces and events that shaped Europe in period prior to and during World War I, 1890-1919.

512B. The Age of Dictators and Contemporary Europe (3)

Europe in the age of dictatorship, world war, decline, and recovery.

513B. Modern Scandinavia (3)

Major political, social and economic developments in Scandinavia from 1814 to the present, with emphasis on contemporary society.

514A. The French Revolution and Napoleonic Era (3) I

Prerequisites: History 105 and 106.

France on the eve of the Revolution; the Great Revolution, 1789-1799, the Napoleonic Era.

514B. Modern France (3)

Prerequisites: History 105 and 106.

The development of France since 1815.

517A-517B. Modern Germany (3-3)

Political, social, and economic history of Germany. Semester I: From the Reformation to the outbreak of World War I. Semester II: 1914 to the present.

518A-518B. Russia and the Soviet Union (3-3)

Semester I: Political, social and economic development of Russia in Europe and Asia from the earliest times to the close of the nineteenth century. Semester II: Emphasis on the twentieth century.

519. Modern Italy (3)

The development of Italy from 1815 to the present.

522A-522B. Tudor and Stuart England (3-3)

Semester I: The Age of the Tudors. Semester II: England during the Stuart Dynasty, 1603-1714.

526. Ideas and Attitudes of Modern Europe (3)

Selected problems in European intellectual history beginning with the seventeenth century, with attention to social and political thought. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

527. Diplomatic History of Modern Europe (3)

Diplomatic relations of the various European states with European and non-European powers. The diplomatic backgrounds and results of World Wars I and II.

528. Social History of Modern Europe (3)

Historical survey of European society emphasizing changes in the family, health, diet, the standard of living, urbanism, crime, migration, and literacy, from 1350 to the beginning of the Industrial Revolution.

Field (c). United States

UPPER DIVISION COURSES
(Intended for Undergraduates)**410A-410B. United States History for Teachers (3-3)**

Prerequisite: History 410A is prerequisite to History 410B.

United States history with emphasis on historiography, bibliography, and relationship between philosophy of history and teaching. History 410A: From colonial period to 1877. History 410B: Since 1877. Intended primarily for students in teacher preparation programs. This year course satisfies the graduation requirement in American Institutions. Not open to students with credit in History 310A-310B.

442A-442B. People Out of Our Past (3-3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

A biographical approach to American history. Semester I: Through 1865; John Winthrop, Benjamin Franklin, Thomas Jefferson, P.T. Barnum, Lucy Stone, Frederick Douglass, John Brown, Abraham Lincoln. Semester II: 1865 to present; Mark Twain, Jane Addams, Emma Goldman, Woodrow Wilson, Henry Ford, Eleanor Roosevelt, Martin Luther King, Jr., Bob Dylan, Richard Nixon.

496. Issues in History (1-4)

Refer to Field (g). Topical Subjects.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)**530. Colonial America (3)**

Settlement and development of the English colonies in North America through the mid-eighteenth century. Contact of cultures, social structure, labor systems, religion, popular values, problems of imperial control, and political culture.

531. The American Revolution (3)

Explores how "revolutionary" the American Revolution was. Causes, dynamics, and results of the American Revolution, from imperial reform and colonial resistance after 1760 through ratification of the Federal Constitution of 1787. This course satisfies the graduation requirement in United States Constitution.

533A. The Jacksonian Era (3)

Territorial expansion, democratic politics, revivalism, and the slavery controversy.

533B. Civil War and Reconstruction (3)

The Civil War and Reconstruction, emphasizing political affairs and the role of Lincoln.

534. The Rise of Modern America, 1868-1900 (3)

Economic, social, political, and intellectual developments from the end of the Civil War to the close of the nineteenth century.

535A. The Age of Reform (3)

The United States from the 1890s to the Crash of 1929.

535B. The Age of Roosevelt (3)

The United States in Depression, War, and Cold War.

536. The United States Since World War II (3) I, II

Major foreign and domestic issues confronting the United States, and the government policies and popular movements generated in response.

537A-537B. The Westward Movement (3-3)

The American frontier: Expansion, exploration, settlement and building of the new states, with emphasis on frontier problems of defense, communications, finance, development of cultural institutions. Causes, effects and results of frontier experiences of American people. History 537A: Frontier movement from Atlantic to Mississippi River. History 537B: The trans-Mississippi west. This year course satisfies the graduation requirement in American History.

538. The American Southwest (3)

Development of the Southwest from the Spanish colonial period to the present. Emphasis on social, economic, and cultural forces which have shaped the character of the border states.

540. Environmental History of the United States (3)

The relationship of Americans to their environment from colonial times to the present with emphasis on how attitudes and values have affected personal behavior and public policy toward the land.

541A-541B. California (3-3)

Political institutions; social, cultural, economic and intellectual development; international background. Semester I: To 1850, Spanish and Mexican heritage. Semester II: 1850 to the present. History 541B satisfies the graduation requirement in California State and Local Government.

543. American Involvement in Vietnam 1941-75 (3)

Prerequisites: Upper division standing and six units in history. Causes and costs of America's longest war: the war's beginning, United States involvement, role of media and antiwar movement, United States withdrawal, impact of war on Southeast Asia and the United States.

544A-544B. American Foreign Policy (3-3)

History 544A: Development of American foreign policy from Colonial Period to the First World War. History 544B: Developments from First World War to present. This year course satisfies the graduation requirement in American History.

545A-545B. Constitutional History of the United States (3-3)

Development of American constitutional ideals and institutions. History 545A: Seventeenth century to 1861. History 545B: Since 1861. This year course satisfies the graduation requirement in American History or United States Constitution.

546A-546B. Development of American Capitalism (3-3)

The changes in agriculture, industry, labor, banking, transportation and commerce in a capitalist society with emphasis on the prominent personalities who made the changes possible.

547A-547B. Intellectual History of the American People (3-3)

American thought since colonial times, focusing on the ideas of individuals, groups and movements in religion, politics, society, the arts and reform. Emphasis on liberal and conservative impulses and their role in the making of the modern American mind. History 547A: To 1865. History 547B: Since 1865. This year course satisfies the graduation requirement in American Institutions.

548A-548B. Social History of the United States (3-3)

Historical survey of American society emphasizing demographic trends, the changing role of the family, social structure, immigration patterns, religious movements, developments in education, the economy, and entertainment.

549. History of San Diego (3)

Prerequisites: Upper division standing and six units in history. Development of San Diego from European contact to the present.

Field (d). Latin America**UPPER DIVISION COURSES
(Intended for Undergraduates)****415A-415B. Latin America (3-3)**

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Semester I: Colonial Period to approximately 1825. Semester II: Republican Latin America.

496. Issues in History (1-4)

Refer to Field (g). Topical Subjects.

**UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)****551A-551B. Mexico (3-3)**

Prerequisite: History 115A-115B or 415A-415B.

Semester I: Colonial and modern Mexico. Semester II: Emphasis on the twentieth century.

552. Brazil (3)

Survey of history of Brazil from Portuguese backgrounds to present. Brazil as a tropical society. Recommended for students minoring in Portuguese.

553. Caribbean Island Nations (3)

History of island nations of Caribbean with emphasis on Cuba, Haiti, and Dominican Republic in the nineteenth and twentieth centuries.

554. The Andean Republics of South America (3)

The historical development of Chile, Bolivia, Peru and Ecuador with emphasis on race relations and social revolutions in the twentieth century.

555. Modernization and Urbanization in Latin America (3)

Historical treatment of the phenomena of urbanization and modernization in Latin America with attention to pre-Colombian and Iberian traditions and influence of education, church, military, and foreign investment.

556. Guerrilla Movements in Latin America (3)

History of sociopolitical conditions which culminated in guerrilla movements in twentieth century Latin America. Use of guerrilla writings and accounts as well as recent Latin American films and U.S. Defense Department counterinsurgency training films.

557. History of Latin American Popular Culture and Social Thought (3)

Examination of the ways Latin Americans have historically viewed their cultures and societies from the dual perspective of elites and the masses.

Popular culture—the Latin American self-image reflected in family relations, folklore, myth, legend, popular music and art and mass expression.

558. Latin America in World Affairs (3)

History of Latin America's political and economic relations with Europe, the Soviet Union, the United States, and the Third World.

559. Central America (3)

Prerequisites: Upper division standing and six units in history. Historical development of the republics of Central America with emphasis on twentieth century. Contemporary revolutionary movements and role of United States in Central American affairs.

Field (e). South, Southeast and East Asia**UPPER DIVISION COURSES
(Intended for Undergraduates)****420. Asia's Dynamic Traditions (3)**

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Emergence and continuing vitality of historic traditions in India, China, and Japan. Topical, comparative survey emphasizing Confucian, Buddhist, and Hindu ideas and the interaction with institutions of family and village. Not open to students with credit in History 120.

421. Asia's Emerging Nations (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Historic changes which have contributed to the rise of modern Japan, India, and China. Topical, comparative approach emphasizing ways Asian societies have responded to challenges of imperialism, nationalism, revolution, war, and modernization. Not open to students with credit in History 121.

422. Southeast Asian and Filipino Experience in America (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Prerequisite recommended: Upper division standing.

History of Filipinos and other Southeast Asians in America from 1898 to present. Topics include changing Southeast Asian-U.S. relations, cultural roots, immigration, comparative community institution and development, racism, discrimination, labor movements, politics, achievements, and contemporary issues.

496. Issues in History (1-4)

Refer to Field (g). Topical Subjects.

**UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)****561A-561B. Asia and the West (3-3)**

History of Asian-Western relations with emphasis on China and Japan. Semester I: Through the nineteenth century. Semester II: The twentieth century.

562. Civilization of India: The Great Traditions (3)

From earliest times to the eighteenth century including Hindu, Buddhist, and Muslim contribution to Indian society, changing political ideas and institutions, and historic trends in art and literature.

563. Modern India and Its Neighbors (3)

British conquest and colonial policy, Hindu and Muslim nationalism, Gandhi's significance, and the emergence of independent India, Pakistan, and Bangladesh.

564A-564B. Southeast Asia (3-3)

Semester I: Cultural traditions of Southeast Asian peoples. Indigenous institutions and the influence of China, India, and Islam. Semester II: Southeast Asia in the modern world. Patterns of foreign stimulus and local response among the peoples of the area.

565. Revolution and Social Change in Asia (3)

Comparative study of contemporary problems in Asia emphasizing how indigenous peoples responded to the challenges of nationalism, reform, revolution, modernization, and neo-colonialism. Topics include social structure, education, peasant movements, urbanization, search for cultural identity, and national integration.

566. Chinese Civilization: The Great Traditions (3)

China's institutional and cultural development from ancient to pre-modern times. Emphasis on traditional philosophy, religions, literature, and the arts.

567. China's Century of Modernization (3)

China's modernization process from the early nineteenth-century Opium War through the People's Republic of China.

568. Communist Party and the Chinese Revolution (3)

Mao and the evolution of Chinese Communist Party since 1920, including Red Army, rural soviets, socialist economic and cultural systems, and foreign policy.

569. Japanese Civilization (3)

Japanese internal history and institutions during the period of indigenous development and Chinese influence including religions, philosophy, literature, and the arts.

570. Modern Japan (3)

Japan's development as a modern state, particularly in the nineteenth and twentieth centuries.

Field (f). Africa and Middle East**UPPER DIVISION COURSES
(Intended for Undergraduates)****473A-473B. Middle Eastern History from the Rise of Islam to the Present (3-3)**

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Semester I: Islamic civilization in the imperial ages, A.D. 600 to A.D. 1600. Semester II: Colonialism and nationalism in the modern Middle East, A.D. 1600 to present.

475A-475B. Africa (3-3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Semester I: Civilization of precolonial Africa both north and south of the Sahara from the advent of Islam to 1880. Semester II: Colonial and postcolonial Africa.

496. Issues in History (1-4)

Refer to Field (g). Topical Subjects.

**UPPER DIVISION COURSE
(Also Acceptable for Advanced Degrees)****574. The Arab-Israeli Question, Past and Present (3)**

Arab-Israeli conflict over Palestine in perspective of Zionism, Arab nationalism, and Great Power relations from nineteenth century to present.

Field (g). Topical Subjects**UPPER DIVISION COURSES
(Intended for Undergraduates)****435. History Through Film (3)**

Critical analysis of selected historical problems, eras, and events, using film as the principal historical document. Maximum credit six units.

440. The Holocaust and Western Civilization (3) I

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities.

German campaign to eliminate Jews during World War II. Anti-Semitic background, both Christian and racial; rise of Adolf Hitler and implementation of "the final solution"; responses by Jews and non-Jews in the Western world.

441. Environmental Problems in Historical Perspective (3)

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities.

A comparative study of the role of religious beliefs, social values, economic practices, and political systems in shaping past attitudes, policies, and behavior toward the environment. International in scope.

480. History of Corporations in the Modern World (3) I, II

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities.

Comparative study of the rise and success of the modern corporation in the United States, Japan, Europe, and developing nations.

482A-482B. War and Civilization (3-3)

The political and social implications of warfare, of the development of military technologies, and of changing concepts of military organization. Semester I: Through the eighteenth century. Semester II: Napoleonic Wars to the present.

484. The Rise of Modern Science (3)

Historical development of scientific ideas from Ancient Greece to the Scientific Revolution of the seventeenth century, concentrating on interaction between science and other aspects of society such as politics, economics, religion, and technology.

485. Science and the Modern World (3)

From Newton to Einstein, from Darwin to DNA: modern development of interaction between science and other aspects of society such as politics, economics, philosophy, religion, and technology.

486. World War II (3)

Causes of World War II, its course, and its legacy for today's world.

488. Modern Jewish History (3) II

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities.

Social, religious, and intellectual life of European Jewry from Middle Ages to present; political struggle for emancipation; anti-Semitism, the Holocaust, and establishment of state of Israel.

496. Issues in History (1-4)

Examination of selected problems and current issues in history. May be repeated with change of content. Maximum credit six units

with change of content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Refer to Class Schedule for specific content.

- | | |
|--|---|
| A. Ancient, Medieval, and Early Modern Europe | E. South, Southeast, and East Asia |
| B. Modern Europe | F. Africa and Middle East |
| C. United States | G. Topical Subjects |
| D. Latin America | |

499. Special Study (1-3) I, II

Prerequisite: Consent of department chair and instructor. Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

580. Great Historians and Historical Literature (3) I, II

Prerequisite: History 100 or 105.

History of historical writing and works of major historians. Recommended for history and social science majors.

596. Selected Studies in History (1-4)

Topics in the various fields of history, such as biography, war, science, technology, urbanization, minority groups, immigration, and capitalism. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree

GRADUATE COURSES
Refer to the Graduate Bulletin.

Humanities

In the College of Arts and Letters

OFFICE: Adams Humanities 4231

TELEPHONE: (619) 594-5186

Faculty

Chair: Genovese

Professors: Eisner, Genovese, Skwara

Associate Professor: Cutter

Offered by the Department of
Classics and Humanities

Major in European studies with the B.A. degree in liberal arts and sciences.

Major in humanities with the B.A. degree in liberal arts and sciences.

Emphasis in European humanities.

Minor in European studies.

Minor in humanities.

The Majors

European Studies. The European studies major approaches Europe as a unique heritage of values, traditions, problems, and resources. Although based in the Department of Classics and Humanities, this curriculum provides a multidisciplinary balance among the humanities, foreign languages, history, and the social sciences. Majors center their studies on a modern continental European language and two series of courses in European humanities and history. They also take courses in political science, geography, economics, philosophy, and women's studies. As seniors, European studies majors produce a special study project that reflects their interest and knowledge in European humanities, history, economics, or political science.

European studies is a broadening interdisciplinary that serves the general purposes of a liberal arts degree, but it can also provide the base for a narrower focus for careers abroad or in European-centered arts, communication, or commerce. The major provides especially apt preparation for work in international travel and diplomacy. Also, with some carefully chosen additional coursework outside of the major, graduate study in any of the major's disciplines is an option.

European studies majors have at their disposal the audiovisual library of the Schaber Humanities Center and the facilities of the Burnett Classics Seminar Room, and they benefit from close faculty advising and the fellowship of a small department with a diverse curriculum.

Humanities. As academic pursuits, the humanities comprise all uniquely human accomplishments. Founded in history, they are the studies of the artistic and intellectual traditions of civilized peoples. This includes language, literature, philosophy, religion, and the arts. The goal of the humanities major is an interdisciplinary understanding of peoples and their times through the accomplishments that portray and articulate best what they value most. In short, humanities shows us what being civilized amounts to, and by directing us to the meaning and worth of life, it helps us to create and enjoy a life of our own.

Majors in humanities may choose a general course of studies that allows for a balance between Western and non-Western civilization or they may emphasize European civilization, which takes its start with the Greeks. They all have at their disposal the audiovisual library of the Schaber Humanities Center and the use of the Burnett Classics Seminar Room. In addition to close academic advising and fellowship in a small department with diverse interests, they culminate their studies with a senior seminar.

With a background in critical analysis and with an appreciation of the history, ideas, and the arts, humanities majors are prepared for various careers. They might find opportunities in communication, diplomacy, or commerce. One might become a cultural consultant, an editor or writer, an arts critic, a travel consultant, or a museum curator. Some of these careers, as well as teaching or research, will require study beyond the bachelor's degree, but the broad, integrated humanities program is designed for success in many fields.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

European Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 03101)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

During their last semester, all seniors majoring in European Studies shall submit to the department a portfolio of their scholarly work.

A minor in a modern European language (excluding English) is required with this major.

Preparation for the Major. Classics 140 or Humanities 101; Economics 102 or Political Science 103; History 105-106. (12 units)

Foreign Language Requirement. The foreign language requirement is automatically fulfilled by coursework for the minor required for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or History 430W, or English 508W, or Rhetoric and Writing 500W with a grade of C (2.0) or better.

Major. A minimum of 30 upper division units to include Humanities 401, 402, 403, and 404; History 407A-407B; nine units in three disciplines from Economics 330*, Geography 336, History 526, Philosophy 413*, 414*, 506*, Political Science 356, 357, 359, and Women's Studies 340; and a senior thesis under Economics 499, History 499, Humanities 599, or Political Science 499.

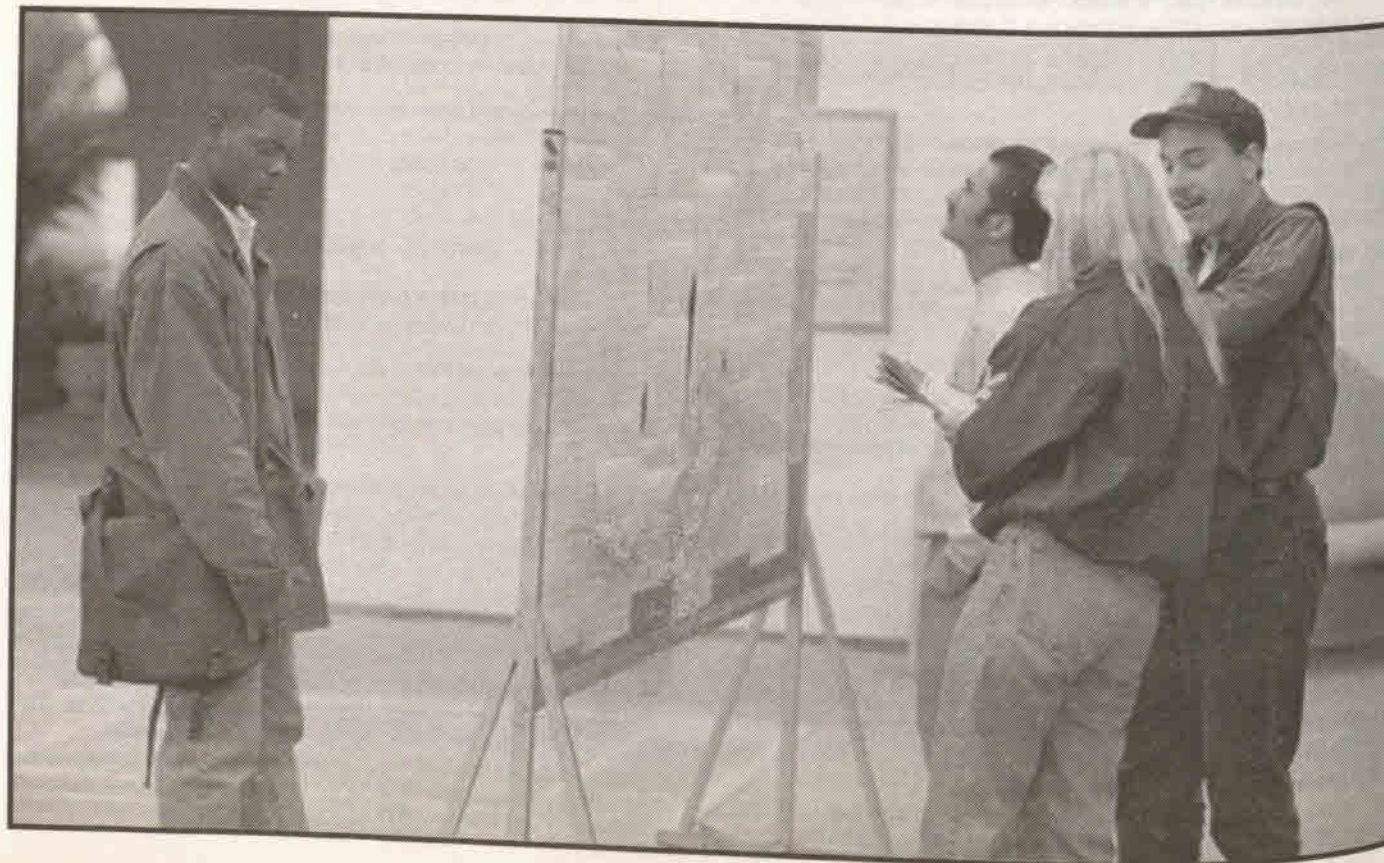
* Additional prerequisites required.

Humanities Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15991)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Each student must file an individual master plan with the humanities undergraduate adviser and with the Office of Admissions and Records.

During their last semester, all seniors majoring in Humanities shall submit to the department a portfolio of their scholarly work.



General Humanities Program

A minor in a classical or modern foreign language is required.

Preparation for the Major. Humanities 101; History 100-101; and three units from Classics 140, Comparative Literature 270A, 270B, English 220, Humanities 140, Philosophy 103, or Religious Studies 101. (12 units)

Foreign Language Requirement. The foreign language requirement is automatically fulfilled by coursework for the minor required with the major.

Major. A minimum of 30 upper division units to include 12 units from Classics 340, Humanities 401, 402, 403, 404; six to nine units from Humanities 450, 460, or Asian Studies 458; six to nine units from Art (art history), Classics, Comparative Literature, Drama 460A, 460B, English, History, Humanities, Music 351A, 351B, 351C, 351D, 351E, 351F, 592, Philosophy, Religious Studies, or Women's Studies, with no more than three units in any discipline (at least three units must be taken in non-Western content; courses in Art, Comparative Literature, English, History, Philosophy, Religious Studies, or Women's Studies may be taken only with prior permission of major adviser); and Humanities 490.

Emphasis in European Humanities

A minor in a European classical or modern language (excluding English) is required.

Preparation for the Major. Humanities 101; History 105-106; and three units from Comparative Literature 270A, 270B, Humanities 140, Philosophy 103, Religious Studies 101, or Women's Studies 205. (12 units)

Foreign Language Requirement. The foreign language requirement is automatically fulfilled by coursework for the minor required with the major.

Major. A minimum of 30 upper division units to include Classics 340, Humanities 401, 402, 403, 404; three units from Geography 336, Political Science 301A, 301B, or 302; nine units from European content courses in Art (art history), Comparative Literature, Drama 460A, 460B, English, History, Humanities, Music 351A, 351B, 351C, Philosophy, Religious Studies, or Women's Studies 340, with no more than three units in any discipline (courses in Art, Comparative Literature, English, History, Philosophy, or Religious Studies may be taken only with prior permission of major adviser); and Humanities 490. (Some upper division courses in the major may have prerequisites not included among courses in the preparation for the major.)

European Studies Minor

The minor in European studies consists of a minimum of 18 units to include 6 to 12 units selected from Humanities 401, 402, 403, 404; and 6 to 12 units selected from Geography 336, History 407A, 407B, Political Science 356, and Women's Studies 340.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Humanities Minor

The minor in humanities consists of a minimum of 18 units, of which at least nine units must be upper division, at least 12 units must be in Humanities, and three to nine units in Humanities 450, 460, and Asian Studies 458. Up to six units may be selected from Asian Studies 458, Classics 140 or Comparative Literature 270A.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses**LOWER DIVISION COURSES****101. Introduction to Humanities (3)**

Preliminary investigation: How values and ideals are expressed in literary, artistic, and intellectual achievements of individuals and civilizations throughout the world.

130. The Jewish Heritage (3)

Hebraic and Jewish influences on the arts, literature, philosophy, and religion of Western civilization. Not open to students with credit in Humanities 131.

140. Mythology (3)

Comparative themes and figures from various mythologies of the world. Interpretation of myths; their influence on art, culture, and history.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

**UPPER DIVISION COURSES
(Intended for Undergraduates)****310. French Civilization (3)**

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

French civilization from Middle Ages to present. Artistic, intellectual achievements and cultural movements. Not open to students with credit in Humanities 311 or French 421.

320. German Civilization (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

German civilization of medieval, Renaissance-Reformation, and modern periods. Artistic, intellectual achievements and cultural movements. Not open to students with credit in Humanities 321 or German 420.

330. Russian Civilization (3) I

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Russian civilization from Middle Ages to present. Artistic, intellectual achievements and cultural movements. Not open to students with credit in Russian 430.

340. Italian Civilization (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Italian civilization of medieval, Renaissance, Baroque, and modern periods. Artistic, intellectual achievements and cultural movements.

**370. The Humanities and the Modern World (1)
Irregular Cr/NC**

Lectures open to the public. Weekly lectures on literature, language, philosophy and cultural history. Reading and reports required of students enrolled for credit. Maximum credit three units.

401. The Medieval Heritage (3) I

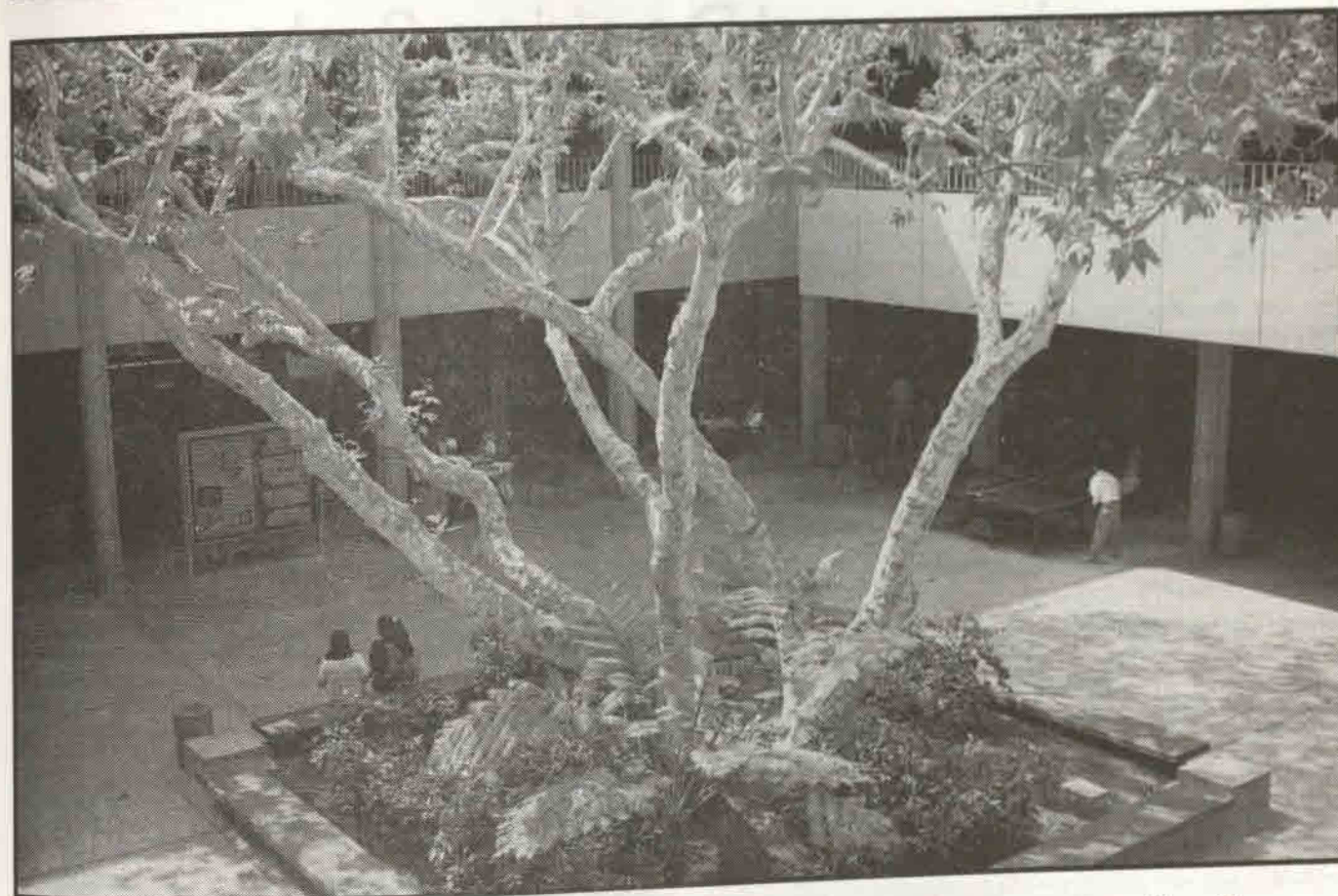
Prerequisites: History 105 or 305A, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

European civilization of the Middle Ages. Artistic and intellectual achievements and cultural movements of the Romanesque and Gothic periods.

402. The Renaissance (3) II

Prerequisites: History 105 or 305A, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

European civilization of the humanistic Renaissance. Artistic and intellectual achievements and cultural movements from the early Renaissance through the Reformation and Mannerism.

**403. The Baroque and the Enlightenment (3) I**

Prerequisites: History 106 or 305B, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

European civilization of the seventeenth and eighteenth centuries. Artistic and intellectual achievements and cultural movements: Baroque and Rococo, Enlightenment and Neoclassicism.

404. The Modern European Heritage (3) II

Prerequisites: History 106 or 305B, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Modern European civilization. Artistic and intellectual achievements and cultural movements: Romanticism, Realism, Naturalism, Impressionism, Symbolism, Surrealism, Expressionism, Existentialism.

450. Arab-Islamic Civilization (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Interdisciplinary survey of Islamic civilization, emphasizing Muslim religion, philosophy, literature, and the arts from Muhammad to the present. (Formerly numbered Humanities 457.)

460. African Civilizations (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Interdisciplinary survey of sub-Saharan African civilizations, emphasizing religion, literature, and the arts from ancient times to the present. (Formerly numbered Humanities 458.)

490. Senior Seminar in Classics and Humanities (3)

Prerequisites: Classics or humanities major with more than 90 units; others with consent of department chair.

Senior capstone seminar in major. Discussion and research on topic in classics and humanities. Formal research paper.

496. Topics in Humanities (3)

Selected topics in literature and the arts. Comparative themes and critical approaches. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

**UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)****596. Topics in Humanities (1-3)**

Prerequisite: Upper division standing and consent of instructor.

Special topics on selected aspects of civilization from an interdisciplinary humanities perspective. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. No more than six units of courses applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

599. Special Study (1-3)

Prerequisites: Humanities or European studies major or minor with upper division standing, twelve units in courses acceptable for major or minor, and consent of instructor and program chair.

Directed individual study. Maximum credit six units.

Information and Decision Systems

In the College of Business Administration

OFFICE: Student Services 2411
TELEPHONE: (619) 594-5316

A Member of the American Assembly of
Collegiate Schools of Business.

Faculty

Emeritus: Archer, Crawford, Galbraith, Gibson, Langenbach,
Spaulding, Straub
Chair: Penrose
Professors: Beatty, Chen, Flatley, Hatch, Koster, Lackritz, Norman,
Penrose, Raafat, Schlesinger, Sherrard, Sondak, Vik
Associate Professors: Addo, Easton, A., Easton, G., Feeney,
Lyons-Lawrence, Yang

Offered by the Department

Master of Science degree in business administration.
Master of Business Administration.
Major in information systems with the B.S. degree in business
administration.
Major in operations management with the B.S. degree in business
administration.
Teaching major in business for the single subject teaching
credential.
Minor in information systems.
Minor in production and operations management.

Admission to the Major

The undergraduate business administration program at San Diego State University is structured such that students desiring a business administration major are first admitted to the prebusiness administration major for their first two years of university work. During these first two years students should complete general education courses and a common core of nine lower division preparation for the business major courses - Accountancy 201, Financial Accounting Fundamentals, 202, Managerial Accounting Fundamentals; Finance 140, Business Law; Economics 101, Principles of Economics (Macro); Economics 102, Principles of Economics (Micro); Information and Decision Systems 180, Principles of Information Systems; Information and Decision Systems 290, Business Communication (not required for accounting majors); Mathematics 119, Elementary Statistics for Business; and Mathematics 120, Calculus for Business Analysis. These prerequisite courses may not be taken Cr/NC; the minimum grade in each class is C. All students must achieve a passing score on a quantitative competency examination. Students must have completed 56 college units.

Supplemental admissions criteria must be met before students may declare an upper division major and be eligible for upper division courses. For current information concerning admissions criteria and procedures, contact the Undergraduate Business Advising Office in the College of Business Administration.

Also, before enrolling in upper division courses offered by the College of Business Administration, students must be competent in the operation of personal computers, including word processing and spreadsheets. These skills are required in upper division business courses.

Business administration majors may not complete a minor in the College of Business Administration.

Retention Policy

The College of Business Administration is concerned that each individual upper division student makes reasonable academic progress toward earning a degree. To this end, the College will counsel students who have earned less than a "C" (2.0) average each semester. Further, such students will be warned that continued poor performance may result in their removal from any business major.

Transfer Credit

Lower Division: Courses clearly equivalent in scope and content to San Diego State University courses required for minors or as preparation for all business majors will be accepted from regionally accredited United States institutions and from foreign institutions recognized by San Diego State University and the College of Business Administration.

Upper Division: It is the policy of the San Diego State University College of Business Administration to accept upper division transfer credits where (a) the course content, requirements, and level are equivalent to San Diego State University courses and (b) where the course was taught in an American Assembly of Collegiate Schools of Business accredited program. Exceptions require thorough documentation evidencing the above standards.

The Major

Good business decisions require good information. The purpose of an information system is to provide management with the information that is essential to decision making and to assist in interpreting that information.

Information Systems. Students interested in using computers to solve business problems and in devising new and more efficient solutions, should consider a major in information systems. The major is intended to prepare students for their first job in information systems, which is normally as a systems analyst. The systems analyst studies problems, designs solutions, and implements those solutions using computer hardware and software. The major will also prepare students for continued growth as a manager in information systems.

The employment outlook for information systems specialists is currently very good. Positive projections continue into the future. Many graduates who major in information systems assume the following positions: systems analysts plan the activities necessary to solve a business problem by structuring the problem in logical form, identifying the data needed, and specifying the procedures to be followed in programming the data processing; information systems specialists represent various departments of a business in assuring that each department's information processing needs are provided for effectively and efficiently; programmers and analysts plan and write computer programs to process business information; computer center managers direct the work of information processing in a company; and technical marketing specialists sell and coordinate the installation of computer systems.

Typical places of employment for information systems graduates include large businesses, government agencies, computer manufacturers, universities, and independent computer service organizations.

Production and Operations Management. Production and operations management majors develop the technical knowledge and skills necessary for professionals in production, production management, and operations management. Most organizations of any significant size have a departmental unit which performs this specialized function. Demand for well-trained production managers has steadily increased due to the need for more technical expertise in our changing sociotechnical world. Production and operations management specialists must have a background in material requirements planning, forecasting, aggregate planning, facility layout, scheduling, inventory control, quality control, and computer operations and capabilities.

Students graduating with a major in production and operations management would typically find employment in positions such as production manager, production specialist, operations manager, distributions specialist, operations specialist, or other related positions. Work settings include major manufacturing, financial service, and service industries.

Information Systems Major

With the B.S. Degree in Business Administration
(Major Code: 07021)

Preparation for the Major. Information and Decision Systems 180, 250, 290; Accountancy 201, 202; Finance 140; Economics 101 and 102; Mathematics 120 or 150; and Economics 201 or Mathematics 119. (30-32 units)

These prerequisite courses, except for Information and Decision Systems 250, may not be taken Cr/NC; the minimum grade in each class is C, except for Information and Decision Systems 250. Information and Decision Systems 250 may be taken after the student is admitted to the upper division major. **Additional progress requirements must be met before a student is admitted to an upper division major.**

Upper Division Writing Requirement. Information and Decision Systems 396W with a grade of C (2.0) or better.

Major. Forty-two upper division units consisting of Information and Decision Systems 302, 306, 315, 375, 396W, 406, 480, 492; Finance 323; Management 350, 405; Marketing 370; six units selected from Information and Decision Systems 301, 391, 407, 408, 415, 460, 475, 482, 483.

A minimum of 52 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration and economics. A maximum of six lower division units of accountancy courses may be used to satisfy degree requirements.

Students must complete all upper division courses in the major within seven years prior to graduation. Students who will have completed any of those courses more than seven years before the projected date of graduation must contact the department chair for information about ways to certify knowledge of current course content. Of the 128 units required, at least 60 units must be at the upper division level. A "C" average is required in the courses stipulated here for the major.

Operations Management Major

With the B.S. Degree in Business Administration
(Major Code: 05064)

Preparation for the Major. Information and Decision Systems 180, 290; Accountancy 201, 202; Economics 101, 102; Finance 140; Mathematics 119 or Economics 201; Mathematics 120. (27 units)

These prerequisite courses may not be taken Cr/NC; the minimum grade in each class is C. **Additional progress requirements must be met before a student is admitted to an upper division major.**

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. Thirty-nine upper division units consisting of Information and Decision Systems 302, 404, 460, 461, 462, 464; Finance 323; Management 350; Management 405 or 458; Marketing 370; three units selected from Information and Decision Systems 301, Accountancy 325, Finance 325, 425, Management 352, Marketing 376, 474; and nine additional units selected from upper division Business Administration courses. Each student must file an individual master plan with the Operations Management undergraduate adviser by the end of the semester when the student declares the Operations Management major. A copy of this master plan must be filed with the Office of Admissions and Records when the student applies for graduation.

A minimum of 52 units of coursework applicable to the bachelor's degree must be completed outside the areas of economics and business administration. A maximum of six lower division units of accountancy courses may be used to satisfy degree requirements.

Students must complete all upper division courses in the major within seven years prior to graduation. Students who will have completed any of those courses more than seven years before the projected date of graduation must contact the department chair for information about ways to certify knowledge of current course content. Of the 128 units required for the degree, at least 60 units must be at the upper division level. A "C" average is required in the courses stipulated here for the major.

Business Major

For the Single Subject Teaching Credential
With the B.S. Degree in Business Administration

All candidates for the single subject teaching credential in business must complete all requirements for the applicable specialization as outlined in this section of the catalog under Policy Studies or Teacher Education. Students must complete the requirements of a major in one of the five departments within the College of Business Administration. In consultation with the single subject credential adviser in the College of Business Administration, undergraduate students must develop programs which fulfill the State credential requirements. All undergraduate majors must demonstrate office skills proficiency. Finance 589, Personal Financial Planning, is required of all teaching credential majors. Of the 128 units required for the degree, at least 60 units must be at the upper division level.

Student program must be approved in advance by the College of Business Administration single subject credential adviser.

Information Systems Minor

The minor in information systems consists of a minimum of 21 units to include Information and Decision Systems 180, 250, 306, 315, 375; and six units selected from Information and Decision Systems 391, 406, 407, 408, 415, 480, 482, 483, 492.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University. Students with a major in the College of Business Administration may not complete a minor in the College of Business Administration. Additional requirements must be met before the student may obtain permission to declare a business minor. See an adviser in the Business Advising Center for more information.

Production and Operations Management Minor

The minor in production and operations management consists of a minimum of 21 units to include Accountancy 201; Economics 101, 102; Information and Decision Systems 301 or 302, 360; Management 350; and three units selected from Information and Decision Systems

461, 462, 464. Prerequisites to the minor include Economics 201 or Mathematics 119, and Mathematics 120.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University. Students with a major in the College of Business Administration may not complete a minor in the College of Business Administration. Additional requirements must be met before the student may obtain permission to declare a business minor. Seen an adviser in the Business Advising Center for more information.

Courses

LOWER DIVISION COURSES

180. Principles of Information Systems (3) I, II

Applications of computerized systems in business organizations. Basic concepts of computer organization, data processing systems, decision support systems and systems analysis. Solving business problems through use of spreadsheet software.

250. End-User Application Development (3)

Prerequisite: Information and Decision Systems 180.

Application of information systems tools, techniques, and methodologies to support end-users in business organizations. Hands-on introduction to computer programming. Selection, design, and implementation of appropriate information technologies, systems documentation, and training.

290. Business Communication (3) I, II

Prerequisite: Rhetoric and Writing 100 and SDSU Writing Competency requirement.

Effective communication applied to business letters, memos, and long reports. Includes the organization, writing, and presentation of business documents using word processing software. Incorporates basic principles of speaking effectively for business.

UPPER DIVISION COURSES (Intended for Undergraduates)

(Information and Decision Systems courses previously listed under the rubric of Information Systems)

301. Statistical Analysis for Business (3) I, II

Prerequisites: Mathematics 120; Economics 201 or Mathematics 119. Approved upper division business major, business minor, or another major approved by the College of Business Administration.

Proof of completion of prerequisites required: Copy of transcript.

302. Introduction to Production and Operations Management (3) I, II, S

Prerequisites: Mathematics 120; Economics 201 or Mathematics 119. Approved upper division business major, business minor, or another major approved by the College of Business Administration.

Proof of completion of prerequisites required: Copy of transcript.

Production and operations management. Master scheduling, material requirements planning, inventory management, capacity planning, production activity control, location analysis, automation, computerized systems, layout planning, linear programming, decision making, queuing, simulation, quality control, project planning.

306. Information Systems Analysis (3) I, II, S

Prerequisites: Information and Decision Systems 250. Approved upper division business major, business minor, or another approved major by the College of Business Administration.

Systems development life cycle concept, with emphasis on analysis of requirements using structured methodology. Feasibility study, needs assessment, prototyping, application design alternatives.

315. Business Application Programming (3)

Prerequisite: Information and Decision Systems 250.

Computer programming for business applications. Appropriate data structures, control structures and program structures. Languages widely used in business applications. Not open to students with credit in Information and Decision Systems 280.

375. Information Systems Technology (3)

Prerequisites: Information and Decision Systems 250. Approved upper division business major, business minor, or another approved major by the College of Business Administration.

Technologies underlying information systems, including computer organization and components, computer arithmetic, I/O and storage, multimedia processing, data communications fundamentals, local area networks, internetworking, and workgroup computing. Not open to students with credit in Information and Decision Systems 385.

388. Small Computers for Professionals (3)

Prerequisites: Information and Decision Systems 180. Approved upper division business major, business minor, or another approved major by the College of Business Administration.

End-user computing including systems and tools used for manipulating data and applications. Communication, training, behavioral theories ethics, microcomputer software selection and use, data capture and output, project implementation and management, security and disaster planning, and current computing issues.

390W. Reporting Techniques for Accountants (4)

Prerequisite: Accountancy 321. Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled Writing Competency requirement, and completed General Education requirement in Written Communication. **Proof of completion of prerequisite required:** Copy of transcript.

Advanced preparation of written and oral reports with application to professional needs of accountants. Not open to students with credit in Information and Decision Systems 490W.

391. System Documentation (3)

Prerequisites: Information and Decision Systems 306 and 396W.

Structured approach to system documentation, documentation standards and control, on-line and automatic documentation, user interfacing in software documentation, electronic and nontraditional documentation techniques.

396W. Reporting Techniques for Business Professionals (3) I, II

Prerequisite: Information and Decision Systems 290. Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. **Proof of completion of prerequisites required:** Copy of transcript. Must be admitted to the upper division major in business.

Advanced preparation of oral and written reports used in business and other organizations. Individualized study of reports in student's career field. (Formerly numbered Business Administration 390.)

404. Small Business Administration (3)

Prerequisites: Finance 323; Information and Decision Systems 301 or 302; Management 350; Marketing 370; and consent of instructor.

Counseling of existing small businesses in conjunction with the Small Business Administration. Application of principles from all fields of business administration. Maximum credit six units.

406. Information Systems Design (3) I, II

Prerequisites: Information and Decision Systems 306 and 375, and credit or concurrent registration in Information and Decision Systems 480.

Business information systems design, installation, and implementation as part of the systems development life cycle, with emphasis on structured design methodology.

407. Artificial Intelligence Applications in Business (3)

Prerequisite: Information and Decision Systems 375.

Basic artificial intelligence concepts, knowledge acquisition and representation, automated problem-solving and goal-seeking techniques, applications of artificial intelligence in business, expert systems, differences between data processing and artificial intelligence methodologies.

408. Computer Graphics in Business (3)

Prerequisite: Information and Decision Systems 375.

Application of computer graphics to business, graphics in business reporting, graphics equipment and technology, graphics software, algorithmic manipulation of images, picture processing, principles of graphics interfaces. Case studies.

415. Advanced Programming for Business (3)

Advanced programming for business applications in widely-used programming languages. Advanced concepts of data structures used in business programming, control structures, and program structures. Selection of programming languages for particular purposes. Not open to students with credit in Information and Decision Systems 383 or 384.

460. Project Management (3)

Prerequisite: Credit or concurrent registration in Information and Decision Systems 302.

Management of small and large projects. Work breakdown structure milestones, project cost estimating and reporting, and single and multiple resource allocation/leveling. Computerized project management software. (Formerly numbered Information and Decision Systems 360.)

461. Operations Planning Strategy (3)

Prerequisite: Information and Decision Systems 302.

Operations and manufacturing decisions analyzed with respect to process technology, system capacity, location, inventory, and quality assurance. Cases from U.S. and non-U.S. companies used to explore these issues.

462. Operation Scheduling and Control Systems (3)

Prerequisite: Information and Decision Systems 302.

Materials management to include forecast error analysis, distribution requirements planning, capacity planning and control, cumulative charting, and shop floor control.

464. Quality and Productivity (3)

Prerequisite: Information and Decision Systems 302.

Applications of operations management techniques to improvement of quality and productivity. Total quality control and just-in-time systems. Cases from American and Japanese companies.

475. Advanced Information Systems Technology (3)

Prerequisite: Information and Decision Systems 375.

Relationships between computer hardware, software, and information, including hardware and software functions and organization, systems architecture, foundations of computing, number systems and computer codes, digital logic circuits. Assembly language programming.

480. Data Management Systems (3) I, II

Prerequisite: Information and Decision Systems 375.

Methodology for applying data base management systems in design of information systems. Analysis of data base applications from perspectives of system users and systems analysts.

482. Information and Decision Systems Practicum (3)

Prerequisite: Completion of at least eighteen units of upper division information and decision systems courses.

Information system design or development project applying knowledge gained in previous coursework done under joint supervision of course instructor and an information systems manager.

483. Networks and Data Communications (3) I, II

Prerequisite: Information and Decision Systems 375.

Fundamental data communications concepts, including voice communications and carrier service offerings, communications hardware, and network design. Global, enterprise, workgroup, and local area networks. Protocols and network operating systems. Network security and control.

490W. Reporting Techniques for Accountants (3) I, II

Prerequisite: Twelve upper division units in accounting. Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. **Proof of completion of prerequisites required:** Copy of transcript.

Advanced preparation of written and oral reports with application to professional needs of accountants. (This course to be offered for the last time during fall 1995.)

492. Management of Information Systems (3) I, II

Prerequisite: Information and Decision Systems 480. **Proof of completion of prerequisites required:** Copy of transcript.

Role of information systems in organizations from management perspective: information systems administration, quality assurance, risk management, countermeasure components, security, and control.

496. Selected Topics in Information Systems (1-4) I, II

Prerequisite: Consent of department chair.

Selected areas of concern in information systems. See Class Schedule for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

498. Investigation and Report (1-3) I, II

Prerequisites: Senior standing and consent of instructor.

May be repeated with new content. Maximum credit six units. A comprehensive and original study of a problem connected with information systems under the direction of one or more members of the information systems staff.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

GRADUATE COURSES Refer to the Graduate Bulletin.

Interdisciplinary Programs

Interdisciplinary Majors and Minors Offered

Major in Russian and East European studies with the B.A. degree in liberal arts and sciences.

Major in urban studies with the B.A. degree in liberal arts and sciences.

Minor in African studies.

Minor in energy studies.

Minor in environment and society.

Minor in Middle East studies.

For information on additional interdisciplinary programs, refer to this section of the catalog under the headings of American Studies, Asian Studies, Child and Family Development, Gerontology, Humanities (European Studies), International Business, Judaic Studies, Latin American Studies, Liberal Studies, and Social Science.

Russian and East European Studies

In the College of Arts and Letters

Office: Business Administration/Mathematics 304

Telephone: (619) 594-6313

Faculty

Undergraduate Adviser: Shapovalov (Russian)

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

The Major

The goals of the Russian and East European studies major are to promote the study of Russia, New States of Eurasia, and Eastern Europe within an integrated framework, and to build better understanding of the societies and cultures of this part of the world through the exchange of students, faculty and publications.

Recent revolutionary advances in transportation and communications produced by science and technology are effectively "shrinking" the world. At the present time the United States, Russia, and the New States of Eurasia are in the process of expanding their commercial and cultural ties, opening unprecedented opportunities in government service, journalism, library work, and international business.

For those who continue graduate work after completing the bachelor's degree, Russian and East European studies is a good preparatory curriculum for graduate professional programs in international trade, international law, librarianship, education, public administration, and journalism.

Russian and East European Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 03071)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Russian 100A, 100B, 200A, 200B. (20 units)

Lower division prerequisites for the upper division courses to be taken in the major. (3-9 units)

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 30 upper division units to include nine units in History 518A-518B and Humanities 330; nine units from at least two departments in the social sciences selected from Economics 330, Geography 337, Political Science 359; six units in Russian selected from upper division courses in the Russian language and literature program; and six units of electives selected with the approval of the adviser.

Urban Studies

In the College of Arts and Letters and the College of Professional Studies and Fine Arts

Office: Professional Studies and Fine Arts 105

Telephone: (619) 594-6224

Faculty

Urban studies is administered by the Urban Studies Committee. The program draws upon courses offered by faculty in the Departments of Anthropology, Economics, Geography, Mexican American Studies, Political Science, Public Administration and Urban Studies, and Sociology.

Chair and Undergraduate Adviser: Caves (Public Administration and Urban Studies)

Committee: Chandler (Sociology), Ford (Geography), Herzog, (Mexican American Studies), Kartman (Economics), Pendleton (Anthropology), Schultze (Political Science)

Advising

All urban studies majors must meet at least once each semester with the urban studies program coordinator for advice on meeting general program requirements and for assignment to an urban studies adviser within the department of concentration.

The Major

The major in urban studies is designed to prepare students for career opportunities in the urban milieu by providing an interdisciplinary major focused on the urban community, its environment and problems. The major combines the study of broad issues and theoretical concerns with specialized training in urban analytical research methodologies.

Urban Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22141)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements in the section of this catalog on "Graduation Requirements." Students are cautioned that several of the required and elective courses have prerequisites.

A minor is not required with this major.

Preparation for the Major. Anthropology 102; Economics 101, 102; Geography 102; Political Science 101 or 102; Sociology 101; and Mathematics 250 or Economics 201 or Political Science 201 or Sociology 201. (Students who specialize in economics must take Economics 201 or Mathematics 250.) (21 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to the section of this catalog on "Graduation Requirements."

Interdisciplinary Minors

African Studies Minor

Dr. Marcia K. Hermansen, Department of Religious Studies, is adviser for this minor.

The minor in African Studies consists of a minimum of 15 units, 12 of which must be upper division, to include History 475A and 475B, Humanities 460, and six units from the following courses in any two departments: Anthropology 449*; Political Science 364; and Religious Studies 340*.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Energy Studies Minor

Dr. Alan R. Sweedler, Department of Physics, and Dr. Philip R. Pryde, Department of Geography, are co-advisers for this minor.

The interdisciplinary minor in energy studies* consists of a minimum of 18 units to include 12 units selected from Economics 452, Mechanical Engineering 352, Geography 571, Physics 301; plus six units selected from Art 247 or 347, Economics 453, Electrical Engineering 380, 580, Mechanical Engineering 582, 586, Geography 370, Geological Sciences 521, Political Science 334, or three units of 499 with the approval of the adviser.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses in the major department or required for the major may not be used to satisfy requirements for the minor.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 30 upper division units to include 12 units selected from the following: Anthropology 529; Economics 458; Geography 354; Mexican American Studies 357; Political Science 522; Public Administration 310; Sociology 557; and 18 units in an area of specialization (may include up to three units outside the specialization).

Anthropology. Required: Anthropology 520 or 580; and 12 units selected from Anthropology 430, 444, 520, 580, 582, 583.

Economics. Required: Economics 341; and 12 units selected from Economics 307, 320, 321, 341, 370, 401, 489, 565.

Geography. Required: Geography 385 or 585; and 12 units selected from Geography 353, 358, 381, 385, 488, 554, 555, 556, 559, 560, 572, 582, 585, 588.

Mexican American Border Studies. Required: Mexican American Studies 355; and 12 units selected from Mexican American Studies 301, 303, 306, 375, 596, 597.

Political Science. Required: Political Science 515A; and 12 units selected from Political Science 321, 334, 335, 531, 537.

Public Administration and Urban Studies. Nine units selected from Public Administration 350, 420, 510, 512, 520; and six units selected from one of the following groups: (a) 450, 460, 512, 520; (b) 320, 525.

Sociology. Required: Sociology 406 or 407; and 12 units selected from Sociology 350, 355, 406 or 407 (if not taken as a required course), 443, 455, 456, 457, 505, 527, 537, 543, 555.

Environment and Society Minor

Dr. Philip R. Pryde, Department of Geography, is adviser for this minor.

The minor in environment and society* consists of a minimum of 15 units to include nine units selected from Biology 454, Economics 452, 453, and Geography 370 or 378; and six units selected from Biology 315, 324, 359, 454, 464A, 464B, Economics 452, 453, 454, 458, Geography 370, 570, 571, 573, 574, 575, 577, History 441, 540, Political Science 334, 335, Sociology 350. Recommended: Geological Sciences 303, Physics 301.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Middle East Studies Minor

Dr. Marcia K. Hermansen, Department of Religious Studies, is adviser for this minor.

The minor in Middle East studies consists of a minimum of 15 units, 12 of which must be upper division, to include Humanities 450, Political Science 363, Religious Studies 340*, and six units from History 473A, 473B and 574.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

International Business

In the College of Arts and Letters and
the College of Business Administration

A Member of the American Assembly of
Collegiate Schools of Business.

Faculty

International Business is administered by the International Business Program Committee. The program draws on courses offered by faculty in the following areas: Accountancy, African Studies, Asian Studies, Chinese, Russian and East European Studies, European Studies, Finance, French, German, Information and Decision Systems, Italian, Japanese, Latin American Studies, Management, Marketing, Middle East Studies, North America, Portuguese, Russian, Spanish.

Chair and Undergraduate Adviser: Branan (French)

Committee: Adler (Economics), Butler (Management), Christensen (Spanish), Davies (History), Gerber (Economics), Hergert (Management), Higurashi (Japanese), Rhyne (Management), Saghafi (Marketing), Salehizadeh (Finance), Schorr (French), Teagarden (Management).

Offered by International Business

Major in international business with the B.A. degree in liberal arts and sciences.

Emphases in language: Chinese, English, French, German, Italian, Japanese, Portuguese, Russian, Spanish.

Emphases in regional/cultural studies: Africa, Asia, Central Europe, Latin America, Middle East, North America, Western Europe.

The Major

International business is an interdisciplinary major which culminates in a Bachelor of Arts degree offered jointly by the College of Arts and Letters and the College of Business Administration, a member of the American Assembly of Collegiate Schools of Business. This program integrates coursework in business administration, foreign language, and regional/cultural studies. It offers students an opportunity to combine two emphases, one in a language and one in regional/cultural studies, and to create a focused program of study, suited to their individual interests and career goals.

Students select one of nine emphases in foreign language (chosen from Chinese, English, French, German, Italian, Japanese, Portuguese, Russian, Spanish) and one of seven emphases in regional/cultural studies (chosen from Africa, Asia, Central Europe, Latin America, Middle East, North America, and Western Europe). Students also complete the necessary business courses to meet accreditation standards of the American Assembly of Collegiate Schools of Business (AACSB) for a major in business administration.

The international business program is one of the many activities sponsored by the SDSU Center for International Business Education and Research (CIBER). This Center is partially funded by the U.S. Department of Education and administered by SDSU's Colleges of Arts and Letters and Business Administration in order to promote international business education in the region.

High school students who are planning to select this major are strongly advised to complete the following courses prior to admission to the University: four years of one foreign language; four years of mathematics; and courses in accounting, computer programming, economics, and world history.

OFFICE: Business Administration/Mathematics 431

TELEPHONE: (619) 594-3008

FAX: (619) 594-7738

Depending on the emphases chosen, the international business major will prepare a student for a career in the following areas: airlines, banking and finance, consulting, foreign service, government, import and export administration, insurance, international law, interpretation and translation, manufacturing, purchasing, marketing, teaching, and tourism.

Language Certification

The Chambers of Commerce and Industry of Paris and Madrid have authorized SDSU to administer tests locally which, if completed successfully, result in governmental certification of the student's business knowledge and linguistic capability.

Study Abroad Programs

The International business program currently has direct exchange agreements with: Ecole Supérieure des Praticiens de Commerce International (Groupe ESSEC), Cergy Pontoise, France, and in Mexico: Centro de Enseñanza Técnica y Superior (CETYS), Tijuana and Universidad Autónoma de Baja California (UABC), Tijuana. These programs provide qualified International Business majors the opportunity for study abroad and make normal progress toward the degree while paying SDSU fees only.

Internships

International Business majors complete internships in "international" firms and organizations in the U.S. and abroad by enrolling in IB 495: International Business Internship.

Advising

All students admitted to the University with a declared major in international business are required to meet with the undergraduate adviser during their first semester on campus in order to declare their language and regional/cultural emphases within the major.

International Business Major

With the B.A. Degree in Liberal Arts and Sciences
(Premajor Code: 80000U) (Major Code: 05131)

Applications from new students will be accepted only during the months of August for the following spring semester and November for the following fall semester. Change of major and declaration of major will be accepted from continuing students only during September for the spring semester and March for the fall semester.

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major. International Business majors may not complete a minor in the College of Business Administration or in the language or regional/cultural study used to satisfy major requirements.

Preparation for the major courses in business and language may not be taken for Cr/NC; the minimum grade in each course in business is C. Additional supplementary admissions criteria must be met before students may declare an upper division International Business major and be eligible for upper division business courses. For current information concerning admission criteria and procedures, contact the adviser of the International Business program.

Preparation for the Major. (Complete I, II, and III: 38-51 units)

I. Business. (All preparation for the major in the business and language portions of this major must be completed before enrolling in any upper division courses in Business Administration):

Accountancy 201, 202; Economics 101, 102; Economics 201 or Mathematics 119; Finance 140; and Information and Decision Systems 180. (21 units)

II. Language Emphasis (choose one language):

Chinese 101, 102, 201, 202. (20 units)

English (Not open to native speakers of English nor to students with native-like fluency in English.) Information and Decision Systems 290; Speech Communication 103; Rhetoric and Writing 100 or Linguistics 100; Rhetoric and Writing 200 or Linguistics 200; Speech Communication 204 or 245 or 291. (15 units)

French 100A, 100B, 200A, 200C, 200D; 200B or 200E. (22 units)

German 100A, 100B, 200, 201, 202, 210. (22 units)

Italian 100A, 100B, 200A, 200B. (16 units)

Japanese 111, 112, 211, 212. (24 units)

Portuguese 102, 201. (10 units)

Russian 100A, 100B, 200A, 200B, 211. (23 units)

Spanish 101, 102, 201, 202, 211, 212. (22 units)

III. Regional/Cultural Studies Emphasis (choose one region):

Africa: Six units selected from History 100 and 101.

Asia: Six units selected from Asian Studies 105, 106, 107 (recommended); History 120, 121 (recommended).

Central Europe: Six units selected from Classics 140; History 105, 106 (recommended).

Latin America: Six units selected from History 115A, 115B (recommended); Latin American Studies 101 (recommended).

Middle East: Six units selected from History 100 and 101.

North America: Six units selected from History 110A-110B or 115A-115B or Political Science 101, 102.

Western Europe: Six units selected from Classics 140; History 105, 106 (recommended).

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. (Complete I, II, and III below: 43 units) **A minimum grade point average of 2.0 is required in each of the three areas.**

I. Business. (All preparation for the major in the business and language portions of this major must be completed, plus additional supplementary admissions criteria must be met, before enrolling in any upper division courses in Business Administration):

A minimum of 23 units to include International Business 498; Finance 323, 329; Information and Decision Systems 302; Management 350, 405; Marketing 370, 376.

II. Language Emphasis (choose one language):

Chinese 301, 302, 434. (9 units)

English (Not open to native speakers of English nor to students with native-like fluency in English.) Speech Communication 307; Linguistics 305W or Rhetoric and Writing 305W or 500W; Information and Decision Systems 396W or Rhetoric and Writing 503W. (9 units)

French 301, 422, and 423. (9 units)

German 301, 303, 420. (9 units)

Italian 301; 305A or 305B; and 421. (9 units)

Japanese 311, 312, 411. (12 units)

Portuguese 301, 401, 443. (9 units)

Russian 301, 303; and 304 or 501 or 580. (9 units)

Spanish 301, 307, and 497. (9 units)

III. Regional/Cultural Studies Emphasis (Choose one region. Maximum 12 units may be applied to the major.)

Africa: International Business 495 and a minimum of nine units, with no more than six units from one department selected from African Studies 463, 470; Anthropology 449; Comparative Literature 440; French 425; History 475A-475B; Humanities 460; Political Science 364; Religious Studies 340; Women's Studies 580*.

Asia: International Business 495 and a minimum of nine units, with no more than six units from one department selected from Anthropology 450, 452, 582*; Asian Studies 458, 459, 560; Chinese 431*, 433*, Comparative Literature 455, 460, 530; Economics 330, 360, 365, 465; History 420, 421, 480, 561A, 561B, 562, 563, 564A, 564B, 566, 567, 568, 569, 570; Japanese 412*, 496*; Philosophy 351, 575*; Political Science 362, 393, 562*, 575; Religious Studies 401*, 403*, 506*.

Central Europe: International Business 495 and a minimum of nine units with three units selected from the following courses taught in English: Economics 330; Geography 337; History 518A, 518B; Humanities 330; Political Science 393; Russian 305A, 305B; and six units selected from Russian 304*, 430, 501*-555, 561, 563, 580*.

Latin America: International Business 495 and a minimum of nine units, with no more than six units from one department, selected from Anthropology 442, 443, 582*; Art 561, 562; Comparative Literature 445; Economics 336* (recommended), 360, 365, 464, 565; Geography 323, 324; History 415A, 415B, 480, 551A, 551B, 552, 553, 554, 555, 556, 558, 559*; Latin American Studies 498, 560, 580; Mexican American Studies 306, 310, 350A, 355, 357, 375, 376; Political Science 393, 482, 566, 567, 568; Portuguese 535; Public Administration 580*; Sociology 556*; Spanish 341, 342, 406A, 406B, 491*, 493*, 515, 520, 522, 524, 570, 571, 572; Women's Studies 310*, 580*.

Middle East: International Business 495 and a minimum of nine units, with no more than six units from one department, selected from Art 596; Comparative Literature 526; History 473A-473B, 488, 574; Humanities 450; Political Science 363; Religious Studies 340; Women's Studies 580*.

North America: International Business 495, Economics 565, and a minimum of six units, one course (three units) each from section A. **Mexico and Mexico-U.S. Border** and section B. **United States.**

A. Mexico and Mexico-U.S. Border: History 551A-551B; Mexican American Studies 306, 340, 350A, 355, 357, 375, 498*; Political Science 568; Spanish 342, 515*.

* Indicates courses with prerequisites not included in requirements listed above.

+ These courses may be included in the major only with the written approval of the undergraduate adviser for international business.

% Indicates courses that may be used to satisfy the major requirement in regional/cultural studies emphasis when not used to satisfy the language emphasis.

@ Required of students choosing Chinese to satisfy the language emphasis of the major.

Required of students choosing Japanese to satisfy the language emphasis.

B. United States: Africana Studies 320, 321, 322, 471B; American Indian Studies 320, 400, 440, 450; American Studies 501, 580; Anthropology 444, 445, 446; Economics 330, 338, 370; English 494, 519, 525; Geography 320, 321, 353, 354, 358, 359; History 310A-310B, 430W, 442A-442B, 536, 537A-537B, 538, 540, 541A-541B, 544A-544B; 545A-545B, 546A-546B, 547A-547B, 548A-548B; Linguistics 524; Mexican American Studies 301, 303, 310, 320, 335, 350B, 376, 380, 480; Political Science 305, 320, 321, 338, 345, 347A-347B, 348, 422, 436, 530, 531; Religious Studies 390; Sociology 320, 335, 355, 421, 430, 431, 433, 531, 537; Speech Communication 475; Women's Studies 341A-341B, 375.

Western Europe: International Business 495 and a minimum of nine units, with no more than six units from one department, selected from Anthropology 440, 582*; Comparative Literature 511, 512, 514; Economics 330, 360, 483; Geography 336; History 407A, 407B, 480, 511A, 511B, 512A, 512B, 513B, 514A*, 514B*, 517A, 517B, 518A, 518B, 519, 522A, 522B, 523A, 523B, 526, 527, 528, 558; Humanities 310, 320, 330, 331, 340, 350, 400+, 401, 402, 403, 404; Philosophy 411, 412, 413, 414; Political Science 356, 393; Portuguese 534; Spanish 491*, 493*; Women's Studies 340.

A maximum of six units of courses numbered 496 and 596 may be applied to the major with the approval of the International Business adviser.

* Indicates courses with prerequisites not included in requirements listed above.

+ These courses may be included in the major only with the written approval of the undergraduate adviser for international business.

% Indicates courses that may be used to satisfy the major requirement in regional/cultural studies emphasis when not used to satisfy the language emphasis.

• Required of students choosing Chinese to satisfy the language emphasis of the major.

Required of students choosing Japanese to satisfy the language emphasis.

Certificat pratique de français commercial et économique

The Center for International Business Education and Research (CIBER) administers the *Chambre de Commerce et d'Industrie de Paris Certificat pratique de français commercial et économique* examination each semester at SDSU. Students who satisfy the French language requirement in International Business (31 units): French 100A, 100B, 200A, 200C, 200D, 200E, 301, 302 or 422, and 423 (with a minimum grade of B) or equivalent are eligible to sit for this examination.

Certificado de Español Comercial

The Center for International Business Education and Research (CIBER) administers the *Cámara de Comercio e Industria de Madrid Certificado de Español Comercial* examination each semester at SDSU. Students who satisfy the Spanish language requirement in International Business (31 units): Spanish 101, 102, 201, 202, 211, 212, 301, 307, and 497 (with a minimum grade of B) or equivalent are eligible to sit for this examination.

Courses

LOWER DIVISION COURSE

200. Projects Study in Mexico (0) I, II

Prerequisite: Open only to students registered in the MEXUS program through the International Business major.

Coursework taken by students studying in Mexico under the auspices of the MEXUS program of the International Business major. May be repeated with different content.

UPPER DIVISION COURSES (Intended for Undergraduates)

400. Projects Study in Mexico (0) I, II

Prerequisites: Open only to students registered in the MEXUS program through the International Business major.

Coursework taken by students studying in Mexico under the auspices of the MEXUS program of the International Business major. May be repeated with different content.

495. International Business Internship (3) I, II Cr/NC

Prerequisites: Consent of instructor, upper division standing in the major.

Internships with international business firms, in U.S. and abroad, nonprofit organizations, and government agencies. Work done under joint direction of activity sponsor and instructor. Project report and internship conferences required. Maximum credit three units.

498. International Business Language Workshop (1) Cr/NC

Prerequisites: Credit or concurrent registration in Management 405. One 300-level foreign language course.

Business concepts in a foreign language. Discussion of general concepts taught in Management 405. Taught in Chinese, French, German, Italian, Japanese, Portuguese, Russian, and Spanish as needed.

OFFICE: Nasatir Hall 121
TELEPHONE: (619) 594-2778
FAX: (619) 594-7302

Faculty

The international security and conflict resolution major is overseen by the Institute for International Security and Conflict Resolution (IIS-COR) and administered by the International Security and Conflict Resolution (ISCOR) program committee. The major includes courses offered by faculty in the Colleges of Arts and Letters; Health and Human Services; Professional Studies and Fine Arts; and Sciences.

International security and conflict resolution are seen as involving more than international relations and the more traditional focus on military power and the threat or use of force. They extend into such areas as arms control, economic development, human rights and resources and the environment.

ISCOR Program Chair and Undergraduate Adviser: Johns (Political Science)

Committee: Boskin (Community Health Education), Cottrell (Sociology), Gupta (Public Administration and Urban Studies), Johns (Political Science), Sabbadini (Biology), Sweedler (Physics)

Offered by International Security and Conflict Resolution

Major in international security and conflict resolution with the B.A. degree in liberal arts and sciences.

The Major

International security and conflict resolution is an interdisciplinary program leading to a Bachelor of Arts degree in liberal arts and sciences. The program requires and integrates coursework from natural sciences, social and behavioral sciences, and humanities.

In order to provide both breadth and depth for the courses of study, all students are required to complete a set of courses addressing the major themes of the development of global systems and the nature of conflict and conflict resolution. All students must select an integrated set of courses from different disciplines focused on an area of specialization related to international security and conflict resolution, in global systems, in cooperation, conflict and conflict resolution, in environment and security. Those completing the major will be prepared for careers in business, government, international relations or nonprofit organizations at the local, state, national or international level as they relate to international security and conflict resolution. Alternatively, majors will be prepared to pursue graduate or professional studies in a particular discipline or area related to international security and conflict resolution.

Advising

Students are required to meet with the undergraduate adviser in order to declare the major. All students admitted to the University with a declared major in international security and conflict resolution are urged to meet with the undergraduate adviser during their first semester on campus.

International Security and Conflict Resolution

In the College of Arts and Letters

International Security and Conflict Resolution Major

With the B.A. Degree in Liberal Arts and Sciences

The International Security and Conflict Resolution Major has been approved by the campus and is pending systemwide approval. Contact program director for further information.

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

It is strongly recommended that international security and conflict resolution majors consider either a minor or a second major in a foreign language. In addition, international security and conflict resolution majors may wish to obtain language certification in a foreign language or to include a period of study abroad. Many career positions related to an international security and conflict resolution major will require demonstrated competency in a foreign language.

It is also recommended that international security and conflict resolution majors consider either a minor, even a second minor, if a minor in a foreign language is taken, in an area studies programs, e.g., African Studies, Asian Studies, European Studies, Latin American Studies. Many career positions related to an international security and conflict resolution major will require a strong background in a particular region and/or culture, perhaps tied in with a specific foreign language.

Preparation for the Major. (24 units) Economics 101, 102; History 101; Political Science 103; Religious Studies 101; and three units from each of the following groups:

- (a) Anthropology 102 or Geography 102;
- (b) Comparative Literature 270B, History 100, or Philosophy 101;
- (c) Economics 201, Mathematics 119 or 250, Political Science 201, Psychology 270 or Sociology 201.

Recommended for General Education in the Natural Sciences: In the Life Sciences, Biology 100 or 101; in the Physical Sciences, Chemistry 100 or 110, Geography 101 or Physics 107.

Foreign Language Requirement. It is strongly recommended that international security and conflict resolution majors consider either a minor or a second major in a foreign language. In addition, international security and conflict resolution majors may wish to obtain language certification in a foreign language. A minimum competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include 18 units in International Security and Conflict Resolution 300, 301, 310, 320 and either 495 or 497; Political Science 375; and 18 units from one of the three specializations: Global Systems; Cooperation, Conflict, and Conflict Resolution; or Environment and Security.

Specialization in Global Systems

This specialization focuses on the political, economic, and social characteristics of global systems, which include the study of international relations, comparative regional studies, and internationally mobile populations. An understanding of global systems will provide the context for analyzing issues of international security, cooperation and conflict.

Requirements for specialization. A minimum of 18 units to include Economics 360; six units selected from Economics 330; History 480; Political Science 577; Sociology 351⁺⁺; six additional units from courses listed above or from Aerospace Studies 400B; Anthropology 350⁺⁺; Asian Studies 560⁺⁺⁺; Economics 336 or 365; Geography 312⁺, 554⁺; History 407B or 486 or 511B or 512A or 512B or 527; History 543⁺⁺ or 544B; History 482B; Mexican American Studies 306 or Sociology 555⁺⁺; Political Science 361 or 390 or 478 or 479 or 481⁺⁺ or 555 or 560; Sociology 350⁺⁺; Women's Studies 580⁺; and three units from Asian Studies 459; History 421, 473B, 475B, 555, 564B, 565; Mexican American Studies 355, 597⁺; Political Science 363, 364, 566.

Specialization in Cooperation, Conflict, and Conflict Resolution

This specialization is concerned with exploring the causes, nature, consequences, management, and resolution of conflict at the societal level. It will consider the psychology, sociology, economics, politics and history of cooperation, conflict and conflict resolution. It will address issues of war and peace, nationalism, civil war, terrorism and ethnic hostility as they impact international security.

Requirements for specialization. A minimum of 18 units to include nine units selected from Africana Studies 445⁺ or Psychology 340⁺⁺ or Sociology 410⁺⁺; Biology 339⁺⁺; Philosophy 512⁺⁺; Political Science 302, 370; Political Science 531⁺⁺ or Sociology 457⁺⁺ or Women's Studies 530⁺; Religious Studies 354 or Sociology 338⁺⁺; Social Work 350; Sociology 433⁺⁺, 537⁺⁺; Speech Communication 475⁺⁺; and nine units selected from the following courses including at least three units selected from Africana Studies 321⁺, 448; American Indian Studies 400; Geography 337; History 486, 511B, 512A, 514A⁺, 533B, 556, 574; Political Science 363, 364, 566; Sociology 355⁺⁺; Women's Studies 375, 536⁺⁺; and at least three units selected from Africana Studies 325, 452⁺; Journalism 408; Philosophy 329; Political Science 479; Public Administration 530⁺.

Specialization in Environment and Security

Issues related to the environment and the utilization of energy and natural resources are important aspects of international security and often are related to cooperation and conflict between nations and groups within states. The purpose of this specialization is to provide the student with the necessary background to better understand this aspect of international security and the management and resolution of conflict.

Requirements for specialization. A minimum of 18 units to include nine units selected from Biology 315⁺⁺; Community Health Education 362; Economics 452; Geography 370⁺; Physics 301; Political Science 334; Sociology 350⁺⁺; and nine units selected from the courses listed above or from Biology 324⁺, 339⁺⁺, 354⁺, 359⁺⁺, 454⁺⁺; Community Health Education 350; Economics 453, 489; Geography 378⁺, 570⁺, 571⁺, 574⁺; History 441; Natural Science 333; Philosophy 329, 332, 333; Psychology 347⁺⁺, 442A⁺, 442B⁺; Sociology 459⁺⁺.

+ Course requires prerequisites other than those listed above.

++ Additional prerequisites other than those listed above may be required depending upon lower division courses taken for preparation for major (and/or for General Education).

+++ Consent of instructor required.

Courses

UPPER DIVISION COURSES (Intended for Undergraduates)

300. Global Systems (3)

Prerequisite: Nine units of General Education requirements in Foundations, to include three units each in Natural Sciences and Quantitative Reasoning, in Social and Behavioral Sciences, and in Humanities.

Evolution and development of global systems, characteristics of contemporary and global systems and formulation of criteria for projecting the future of the systems. (Formerly numbered General Studies 300.)

301. Conflict and Conflict Resolution (3)

Prerequisite: Nine units of General Education requirements in Foundations, to include three units each in Natural Sciences and Quantitative Reasoning, in Social and Behavioral Sciences, and in Humanities.

Conflict resolution as an emerging field; theories of conflict; methods and implications of conflict management including group, institutional, and international level analysis. (Formerly numbered General Studies 301.)

310. Our Global Future: Values for Survival (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B. Social and Behavioral Sciences.

Identifies resource and social crises toward which contemporary American values are leading, examines the nature of human action, contrasts other value systems with ours; considers origins of our values and the individual's potential for changing them. Interdisciplinary, team taught. (Formerly numbered General Studies 210 and 310.)

320. International Security in the Nuclear Age (3)

Prerequisites: Upper division standing. Nine units of General Education requirements in Foundations, to include three units each in Natural Sciences and Quantitative Reasoning, in Social and Behavioral Sciences, and in Humanities.

International security issues from historical, ethical, economic and sociopsychological perspectives, including the security environment after the Cold War and current sources of conflict. The proliferation of weapons of mass destruction, including nuclear weapons is discussed. (Formerly numbered General Studies 320.)

495. Internship in International Security and Conflict Resolution (3)

Prerequisites: Senior standing. Nine units of international security and conflict resolution core courses and nine units in selected specialization. Consent of instructor.

Supervised internship of 150 hours in government or nongovernmental agency, office or business in an area directly related to international security and conflict resolution.

496. Selected Topics in International Security and Conflict Resolution (1-3)

Selected topics in international security and conflict resolution. See Class Schedule for specific content. May be repeated with new content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

497. Thesis in International Security and Conflict Resolution (3)

Prerequisites: Senior standing. Nine units of international security and conflict resolution core courses and nine units in selected specialization. Consent of instructor.

An original and comprehensive written description and analysis of a problem or problem area in international security and conflict resolution.

499. Special Study (1-3)

Prerequisites: Consent of instructor. Six units of international security and conflict resolution core courses and six units in specialization. Individual study. Maximum credit six units.

OFFICE: Business Administration 304

TELEPHONE: (619) 594-6491

Faculty

Emeritus: Vergani, G., Vergani, L.

Chair: Benkov

Offered by the Department of
French and Italian Languages and Literatures
Minor in Italian.

Italian Minor

The minor in Italian consists of a minimum of 15 units in Italian, nine units of which must be in upper division courses in the language, with a minimum of six upper division units completed at San Diego State University.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable.

Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Italian to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Italian 200A or 200B or the equivalent level of achievement. The usual sequence of coursework is Italian 100A, 100B, and 200A or 200B. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. **Four years** of high school level language count as the equivalent of three college semesters, thus fulfilling the foreign language requirement.

Courses

LOWER DIVISION COURSES

Native speakers of Italian will not receive credit for taking lower division courses in Italian except with advance approval from the department.

All lower division courses in Italian are taught in Italian.

No credit will be given when Italian 100A, 100B, 200, or 301 are taken concurrently or out of sequence. However, Italian 200A and 200B may be taken in any order.

Italian

In the College of Arts and Letters

100A. Elementary (5) I, II

Pronunciation, speaking and writing, readings on Italian culture and civilization, essentials of grammar. Not open to students who have completed three years of high school Italian unless the third course was completed five or more years ago.

100B. Elementary (5) I, II

Prerequisite: Italian 100A or two years of high school Italian. Continuation of Italian 100A. Not open to students who have completed four years of high school Italian unless the fourth course was completed five or more years ago.

200A. Intermediate Grammar and Composition (3) II

Prerequisite: Italian 100B or three years of high school Italian. Comprehensive survey of Italian grammar at the intermediate level. Study of a variety of prose models and practice in writing.

200B. Reading and Speaking Italian (3) I

Prerequisite: Italian 100B or three years of high school Italian. Emphasis on the spoken language with readings of cultural material serving as a basis for discussion.

296. Topics in Italian Studies (1-4)

Prerequisite: Italian 100B or three years of high school Italian. Topics in Italian language and culture. May be repeated with new content. Taught in Italian. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division Italian courses are taught in Italian unless otherwise noted.

301. Advanced Oral and Written Composition (3)

Prerequisites: Six units of 200-level Italian, and completion of the General Education requirement in Foundations II.C., Humanities.

Grammar review. Reading of modern Italian prose, with written reports and oral discussions in Italian.

305A. Italian Literature (3)

Prerequisites: Six units of 200-level Italian, and completion of the General Education requirement in Foundations II.C., Humanities.

Important movements, authors and works in Italian literature from Middle Ages to the Renaissance.

305B. Italian Literature (3)

Prerequisites: Six units of 200-level Italian. Continuation of Italian 305A from the Renaissance to the present.

421. Italian Civilization (3)

Prerequisites: Six units of 200-level Italian, and completion of the General Education requirement in Foundations II.C., Humanities.

Major aspects of Italian civilization with emphasis on art, music, history, and cinema.

496. Selected Topics (1-4)

Topics in Italian language, literature, culture and linguistics. Conducted in English or in Italian. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit eight units.

499. Special Study (1-3) I, II

Prerequisites: Italian 301 and 305A or 305B.

Individual study. Maximum credit six units. This course is intended only for students who are currently enrolled in or who already have credit for all upper division courses in Italian available in any given semester.

Japanese

In the College of Arts and Letters

Faculty

Chair: Underhill
Professor: Higurashi
Assistant Professor: Kitajima
Lecturer: Miyamoto

Offered by the Department of Linguistics and Oriental Languages

Major in Japanese.
Minor in Japanese.

The Major

Japanese is the fastest growing language in U.S. higher education. Due to the interdependence between the U.S. and Japan, as well as Japan's role in the world economy, the importance of Japanese has become evident.

Students who major in Japanese will gain proficiency in Japanese language skills, and the department offers a broad variety of courses designed to prepare majors for a number of careers after graduation. A major in Japanese is also a good preparatory curriculum for graduate programs in such areas as international business, international law, librarianship, public administration, and journalism.

A knowledge of Japanese is a valuable asset in finding positions as interpreters and translators employed by the federal government, the United Nations, international conferences, trade councils, and publishers, as well as internationally oriented companies, government agencies, the press corps, and the tourism industry. It also gives graduates an advantage in looking for positions in Japan in such areas as language teaching, business consulting, or journalism.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Japanese Major

With the B.A. Degree in Liberal Arts and Sciences

The Japanese Major has been approved by the campus and is pending systemwide approval. Contact department for further information.

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

Students majoring in Japanese must complete a minor in another field to be approved by the departmental adviser in Japanese.

All students with transfer credits must take placement test at the Test Office at SDSU.

Preparation for the Major. Japanese 111, 112, 211, and 212. (24 units) A maximum of 24 lower division units of Japanese courses may be used to satisfy degree requirements.

OFFICE: Business Administration 327
TELEPHONE: (619) 594-5268

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 32 upper division units in Japanese to include Japanese 311, 312, 321, 322, 411, 412, 421, and 422.

Japanese Minor

The minor in Japanese consists of a minimum of 24 units in Japanese, at least 12 units of which must be in upper division courses.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of eight upper division units must be completed at San Diego State University, and a proficiency level equal to that of Japanese 411 must be demonstrated.

Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Japanese to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Japanese 211 or the equivalent level of achievement. The usual sequence of coursework is Japanese 111, 112, and 211. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. **Four years** of high school level language count as the equivalent of three college semesters, thus fulfilling the foreign language requirement.

Courses

LOWER DIVISION COURSES

Native speakers of Japanese will not receive credit for taking lower division courses except with advance approval from the department.

All lower division courses in Japanese are taught in Japanese. No credit will be given for Japanese 111, 112, 211, 212 taken out of sequence.

111. Elementary Japanese I (6) I

Six lectures and one hour of laboratory.

Elementary language skills: fundamental grammar, idiomatic expressions, hiragana, katakana, and basic kanji characters. Reading, writing, speaking, oral-aural drills, and relationship between language and culture. Not open to students who have completed three years of high school Japanese unless the third course was completed five or more years ago. (Formerly numbered Japanese 101.)

112. Elementary Japanese II (6) II

Six lectures and one hour of laboratory.

Prerequisite: Japanese 111.

Continuation of Japanese 111. Preparation for Japanese 211. Not open to students who have completed four years of high school Japanese unless the fourth course was completed five or more years ago. (Formerly numbered Japanese 102 and 202.)

211. Intermediate Japanese I (6) I

Six lectures and one hour of laboratory.

Prerequisite: Japanese 112.

Continuation of Japanese 112. More kanji and grammar. Further development of language competence for advanced courses in Japanese. Preparation for Japanese 212. (Formerly numbered Japanese 201 and 303.)

212. Intermediate Japanese II (6) II

Six lectures and one hour of laboratory.

Prerequisite: Japanese 211.

Strengthening communication skills in Japanese; various literary styles; additional kyoiku kanji. Cultural values shaping modern Japanese society; intercultural communication. Preparation for Japanese 311. (Formerly numbered Japanese 304.)

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division courses in Japanese are taught in Japanese unless otherwise stated.

311. Third Year Japanese I (4) I, II

Four Lectures and one hour of laboratory.

Prerequisites: Japanese 212 and completion of the General Education requirement in Foundations II.C., Humanities.

Continuation of Japanese 212. Strengthening of communication skills in Japanese; various literary styles; all kyoiku kanji. Cultural values shaping modern Japanese society; intercultural communication. Preparation for Japanese 312. (Formerly numbered Japanese 301.)

312. Third Year Japanese II (4) I, II

Four lectures and one hour of laboratory.

Prerequisites: Japanese 311 and completion of the General Education requirement in Foundations II.C., Humanities.

Further strengthening of communication skills in Japanese; various literary styles; introduction of chugaku kanji. Social and economic issues in Japan and the U.S.; cultural values shaping business conduct in Japan; characteristics of Japanese management; intercultural communication. Preparation for Japanese 411.

321. Advanced Japanese Discourse (4)

Prerequisite: Japanese 212.

Varieties of Japanese such as broadcasting Japanese, lectures, business negotiations, and ceremonial discourses. Focus on listening comprehension.

322. Advanced Conversation Through Media (4)

Prerequisite: Japanese 311.

Development of advanced conversation skills through understanding and analysis of social and linguistic aspects of modern Japanese drama. Role play, practical vocabulary, and useful expressions; conversation on assigned topics.

411. Fourth Year Japanese I (4)

Prerequisite: Japanese 312.

Continuation of Japanese 312. Further strengthening of communication skills in Japanese; various literary styles; more chugaku kanji. Social and economic issues in Japan and in the U.S.; cultural values shaping business conduct in Japan; characteristics of Japanese management; intercultural communication. Preparation for Japanese 412. (Formerly numbered Japanese 401.)

412. Fourth Year Japanese II (4)

Prerequisite: Japanese 411.

Continuation of Japanese 411. Further strengthening of communication skills in Japanese; various literary styles; all jojo kanji. Social and economic issues in Japan and the U.S.; cultural values shaping business conduct in Japan; characteristics of Japanese management; intercultural communication. (Formerly numbered Japanese 402.)

421. Japanese Literature Through Text and Film (4)

Prerequisite: Japanese 312.

Japanese literature from earliest times to present. Major works of modern Japanese fiction as a literary genre and their cinematic interpretation.

422. Newspaper Reading and Advanced Composition (4)

Prerequisite: Japanese 411.

Advanced readings in general and specialized texts selected from current newspapers and magazines published in Japan. Discussion of text and development of related compositions.

496. Topics in Japanese Studies (1-4)

Topics in Japanese language, literature, culture and linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit eight units.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

Journalism

Refer to "Communication" in this section of the catalog.

Judaic Studies

In the College of Arts and Letters

OFFICE: Adams Humanities 4188
TELEPHONE: (619) 594-5338

Faculty

Faculty assigned to teach courses in Judaic studies are drawn from departments in the College of Arts and Letters.

Chair: Baron (History)

Committee: Bar-Lev (Linguistics), Cayleff (Women's Studies), Chandler (Sociology), DuFault (History), Grossbard-Schechtman (Economics), Holler (Religious Studies), Koster (Information and Decision Systems), O'Brien (History), Sheres (English and Comparative Literature), Sparks (Religious Studies), Strom (Teacher Education), Wood (Sociology).

Offered by Judaic Studies

Minor in Judaic Studies.

The Minor

The minor in Judaic studies provides a balanced interdisciplinary study of Jewish contributions to world culture and history. It serves the needs of students who plan to (1) specialize in disciplines in which an understanding of Jewish contributions is essential, or (2) follow careers in teaching, community service, foreign service, or the ministry. Students seeking a minor in Judaic studies may want to consider combining it with a major in Social Science with an emphasis on Africa and the Middle East. Many courses relevant to this major are available in anthropology, economics, geography, history, political science, and sociology.

Judaic Studies Minor

Dr. Lawrence Baron, Department of History, is adviser for this minor.

The minor in Judaic studies consists of a minimum of 19-20 units to include seven to eight units selected from Humanities 130 and Hebrew 101, 102, or 201; and 12 upper division units selected from Comparative Literature 405, 526; History 440, 488, 574; Religious Studies 301, 320, 330. Judaic Studies 496; Hebrew 496; and other relevant courses may be counted as part of the 12 upper division units taken with the approval of the adviser for Judaic Studies.

**"All of us do not have equal talent,
but all of us should have an equal
opportunity to develop our talents."**

—John F. Kennedy (June 16, 1963)
address at San Diego State College

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

100. New Perspectives in Judaic Studies (1) Cr/NC I, II

New interpretations of Jewish history, culture, and social issues. Presentations from perspective of various disciplines. Contemporary issues.

296. Topics in Judaic Studies (1-3)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSE (Intended for Undergraduates)

496. Topics in Judaic Studies (1-3)

Prerequisite: Upper division status.

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

Latin American Studies

In the College of Arts and Letters

OFFICE: Storm Hall 146
TELEPHONE: (619) 594-1103

Faculty

Latin American studies is administered by the Latin American Studies Committee. Faculty assigned to teach courses in Latin American studies are drawn from the Departments of Anthropology, Art, Comparative Literature, Economics, Geography, History, Journalism, Mexican American Studies, Political Science, Public Administration and Urban Studies, Sociology, Spanish and Portuguese Languages and Literatures, and Women's Studies; and the College of Business Administration.

Chair and Undergraduate Adviser: Davies (History)

Committee: Ball (Anthropology), Barrera (Spanish), Case (Spanish), Christensen (Spanish), Clement (Economics), Cuniff (History), Del Castillo (Mexican American Studies), Espin (Women's Studies), Esser (Art), Flemion (History), Fredrich (Geography), Ganster (Institute for Regional Studies of the Californias), Griffin (Geography), Griswold del Castillo (Mexican American Studies), Hartung (Journalism), Head (Spanish), Herzog (Mexican American Studies), Hicks (English and Comparative Literature), Hidalgo (Spanish), Higgs (Spanish), Kelley (Social Work), Lippold (Anthropology), Loveman (Political Science), Neruccio (English and Comparative Literature), Robinson (Language Acquisition Resource Center), Rodriguez (Mexican American Studies), Segade (Spanish), Silverman (Portuguese), Stromberg (Language Acquisition Resource Center), Villarino (Mexican American Studies), Watson, M. (Women's Studies), Weeks (Geography), Wilson (Spanish), Young (Spanish).

Offered by Latin American Studies

Master of Arts degree in Latin American studies.

Major in Latin American studies with the B.A. degree in liberal arts and sciences.

Minor in Latin American studies.

The Major

The major in Latin American studies is a multidisciplinary program designed to provide an effective understanding of the cultures and governments of Latin America, offering basic education and training for business or professional careers that require specialized knowledge of this exciting and diverse area of the world.

A major in Latin American studies provides a multitude of career opportunities. Employment possibilities exist not only in Latin America, but throughout the world. Graduates can apply their specialization to service in international organizations and government positions at the federal or state level. Numerous employment situations can be found in the private sector. Private agencies and corporations have significant interests in Latin America and are looking for area specialists. Those students who wish to continue in their studies will find opportunities in teaching at all levels. A major in Latin American studies opens many avenues in the choice of a career.

High school students preparing to enter this program should include in the high school course of study not less than three years of study in one foreign language, preferably Spanish or Portuguese. Proficiency in either of these languages is indispensable to a successful career in this area of study.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible. Students are required to meet with their department adviser within the first two semesters after declaration or change of major.

Latin American Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 03081)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Portuguese 101 or Spanish 101, 102, 201, 202, 211, 212 (5-22 units); 12 units selected from Anthropology 102, Economics 101 and 102, Geography 102, History 115A-115B, Latin American Studies 101, Political Science 101 and 103.

Foreign Language Requirement. Portuguese 101, 201, and 301 or Spanish 101, 102, and 201.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units selected from courses in anthropology, art, economics, geography, history, Latin American studies, Mexican American studies, political science, Portuguese, sociology, Spanish, and women's studies, with not less than 12 units in one field and nine in each of two other fields. At least 33 units must be in courses having Latin American content.

Courses acceptable for the Latin American studies major include Latin American Studies 495, 498, 560, 580; Anthropology 442*, 443*, 529*, 582*; Art 561, 562; Comparative Literature 445; Economics 336, 360 (when relevant), 365, 464, 483, 565, 592*; Geography 323, 324, 498 (when relevant), 540* (when relevant); History 415A-415B, 541A, 551A-551B, 552, 553, 554, 555, 556, 557, 558, 559; Mexican American Studies 306, 310, 335, 340, 350A, 355, 357, 375, 376, 380, 498, 597; Political Science 361, 482, 566, 567, 568, 577; Portuguese 535, 597; Public Administration and Urban Studies 580 (when relevant); Sociology 350* (when relevant), 351* (when relevant), 450*, 555*, 556*, 562*, 590*; Spanish 341*, 342*, 406A-406B*, 515, 520, 522, 524, 570, 571, 572; Telecommunications and Film 363 (when relevant), 562*, 590*; Women's Studies 310 (when relevant), 553* (when relevant), 580* (when relevant).

Courses numbered 496, 499, and 596 of relevant content in the above departments may be used for the Latin American studies major.

* Indicates course with prerequisites not included in requirements listed above.

Latin American Studies Major (Imperial Valley Campus)

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 03081)

At the Imperial Valley campus the major in Latin American studies is essentially the same as the Latin American studies major offered at the San Diego campus.

It is designed to provide (1) a foundation of understanding of the history, culture and governments of the countries of Latin America and the multiple interrelationships among those countries; and (2) a basic education and training for a business or professional career involving understanding of Latin America.

A minor is not required with this major.

Preparation for the Major. The lower division preparation for the major can be fulfilled by taking the following courses at Imperial Valley

College, or their equivalent: elementary Spanish; intermediate Spanish or bilingual Spanish; intermediate conversational Spanish or bilingual oral Spanish; advanced conversational Spanish; and 12 units selected from physical anthropology, physical geography, history of the Americas, introduction to political science, comparative politics, and civilization of Spanish America and Brazil.

A minimum grade point average of 2.0 is required for all work attempted.

Foreign Language Requirement. The foreign language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units selected from the courses listed below with not less than 12 units in one field and nine in two other fields. At least 33 units must be in courses having Latin American content: Latin American Studies 344; Anthropology 442; Art 496 (when relevant), 561, 562; Economics 365, 464, 496 (when relevant); Geography 323, 324, 496 (when relevant); History 415A-415B, 496 (when relevant), 538, 551A-551B, 552, 557, 558; Mexican American Studies 335, 350A, 376; Political Science 566, 567, 568; Sociology 350, 450, 556 (when relevant); Spanish 406A-406B, 515, 570, 571, 572; Women's Studies 310 (when relevant).

Latin American Studies Minor*

The minor in Latin American studies consists of a minimum of 15 units of Latin American content courses. At least 12 of these units must consist of upper division courses. In addition, students must complete Spanish 201 or Portuguese 101 or the equivalent. No more than six units may be drawn from any one department's or program's offerings. Units may be selected from among the following:

Latin American Studies 101, 495, 498, 560, 580; Anthropology 442, 529, 582 (when relevant); Art 561, 562; Comparative Literature 445; Economics 336, 360, 365, 464, 565, 592; Geography 323, 324; History 115A-115B, 415A-415B, 541A, 551A-551B, 552, 553, 554, 555, 556, 557, 558, 559; Mexican American Studies 306, 310, 335, 340, 350A, 355, 357, 375, 376, 380, 498; Music 596; Political Science 361, 482, 566, 567, 568, 577; Portuguese 535; Public Administration 580 (when relevant); Sociology 350 (when relevant), 351 (when relevant), 450 (when relevant), 555, 556 (when relevant); Spanish 341*, 342*, 406A-406B, 515, 520, 522, 524, 570, 571, 572; Telecommunications and Film 363 (when relevant), 562, 590; Women's Studies 310 (when relevant), 580 (when relevant).

Courses numbered 496, 499, and 596 of relevant content in the above departments may be used for the Latin American studies minor.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University. In designing their Latin American studies programs for a minor, students may not include courses drawn from their major department.

* Additional prerequisites may be required for courses in the minor.

Courses

LOWER DIVISION COURSE

101. Latin American Heritage (3)

Introduction to Latin American cultures and peoples from an interdisciplinary perspective.

UPPER DIVISION COURSES

(Intended for Undergraduates)

344. Cooperative Studies at the Universidad Autonoma de Baja California (3-9) (Offered only at IVC)

Prerequisites: Spanish 301 and 302; declared major in Latin American studies.

Latin American studies majors will attend classes with a Latin American focus at the Universidad Autonoma de Baja California; SDSU/IVC faculty will cooperate in supervision and evaluation of students. May be repeated with new content. Maximum credit nine units.

495. Latin American Studies Internship (3) Cr/NC I, II

Prerequisite: Six upper division units in Latin American content courses.

Opportunity for Latin American studies undergraduates to implement area specialist skills. Placement with a local organization with legal, commercial, or social service functions whose activities are primarily Latin American related.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

498. Seminar on Latin America (3)

Exploration of the interdisciplinary approach to Latin America including evaluation of relevant resources and methods. Taught by a team of instructors representing two or more disciplines.

499. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)

560. Latin America After World War II (3)

Prerequisites: Latin American Studies 101; History 115A, 115B; and either Political Science 566 or consent of instructor.

Major socioeconomic and political changes in Latin America since World War II and inter-American relations during the same period. Includes guest lecturers.

580. Special Topics (1-4)

Prerequisite: Six upper division units in Latin American content courses.

Interdisciplinary study of selected Latin American topics. Credit will vary depending on the scope and nature of the topic. Whenever appropriate, the course will be taught by a team of instructors representing two or more disciplines. May be repeated with different content. See Class Schedule for specific content. Maximum credit eight units.

For further information regarding Liberal Studies, consult the following:

OFFICE LOCATIONS/TELEPHONE NUMBERS

EMPHASIS IN THREE DEPARTMENTS..... Administration 223
(619) 594-5841

EMPHASIS IN EDUCATION University Advising Center
Student Services 1641
(619) 594-6668

Faculty (Emphasis in Education)

Coordinator: Roeder, P. (Division of Undergraduate Studies)
Allison (English), Bar-Lev (Linguistics), Dunn (History), Fisher (Biology), Goldberg (Physics), Griswold (English), Kuznets (English), Lujan (Teacher Education), McKerrow (Drama), Park (Teacher Education), Sowder, L. (Mathematical Sciences), Starr (History), Stites (History), Thile (Communicative Disorders), Vartanian (History)

Committee: Anderson (Drama), Boe (English and Comparative Literature), Chandler (Sociology), Christensen, K. (Communicative Disorders), Indermill (University Advising Center), Ingmanson (Teacher Education), Kitano (Special Education), Liebowitz (Music), McKenzie, T. (Physical Education), Pacheco (Policy Studies in Language and Cross-Cultural Education), Roeder, P. (Natural Science), Ross (Teacher Education), Russum (Imperial Valley Campus), Sowder, L. (Mathematical Sciences), Vidal (University Advising Center), Webb (Linguistics)

The Major

The liberal studies major provides two emphases for students wishing to follow degree programs involving more than one discipline or area of study. The Emphasis in Three Departments offers an opportunity to combine three disciplines in a focused program of study. The Emphasis in Education provides a general approach to learning particularly appropriate for students interested in entering elementary education; specializations are included to permit in-depth knowledge in a particular department.

The **Emphasis in Three Departments** is a student-designed major incorporating coursework from three different departments. It is appropriate for students whose postgraduate goals are not well addressed by a traditional major or major/minor combination.

Students design and justify their own cohesive and rational master plans. Approval of the plans must be secured from each of the involved departmental advisers and from the Dean of Undergraduate Studies prior to completion of 90 semester units. Information regarding participating departments and procedures for application is available from the Division of Undergraduate Studies.

Some special guidelines exist for a **Performing Arts** combination of music, dance, and drama, and for themes in **International Security and Conflict Resolution** and **Japan Studies** which offer several possible combinations.

The **Emphasis in Education** is a diversified interdisciplinary liberal arts major which includes a 12-unit area of specialization. Some students choose this major because their goal is a liberal education or they seek breadth before a specialized postgraduate degree. Most students who select this major, however, are seeking a multiple subject credential. This major meets all the requirements for the multiple subject/diversified major as specified in the Ryan Act and is an approved major for the multiple subject credential leading to a career in teaching at the elementary level.

Individuals seeking this credential who complete this major are exempt from the PRAXIS (MSAT) Examination. Additional requirements for admission to the credential program are listed in this catalog under Policy Studies and Teacher Education.

Liberal Studies

Courses

UPPER DIVISION COURSES

(Intended for Undergraduates)

300. Introduction to Liberal Studies (3)

Prerequisites: Preparation for the major completed or to be completed concurrently. Completion of lower division Writing Competency and Entry-Level Mathematics requirements.

Introduction to ideas, structures, and values within and among the various disciplines in this interdisciplinary major. Exploration of issues of diversity in contemporary society through directed field experience and required readings. Individual qualitative evaluation process required by major included.

498. Assessment in Liberal Studies (1) Cr/NC

Prerequisite: Successful completion of three upper division semesters of liberal studies major.

Completion and assessment of portfolio including dialog summarizing educational experiences and preparing for role as future educator.

Liberal Studies Major

With the B.A. Degree in Liberal Arts and Sciences

Emphasis in Three Departments

(Major Code: 49011)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

The student master plan must be approved (AD-223) before this major may be declared.

A minor is not required with this major.

Preparation for the Major. A minimum of two courses (normally defined as six units) in each of the three departments selected in the major must be completed in the lower division as foundation for upper division courses. In departments where lower division offerings are insufficient to meet this requirement, the total minimum upper division requirement may be extended.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units selected from three departments: (a) with no fewer than nine units from each of the three departments; and (b) with no fewer than six units from each of the three departments completed at San Diego State University; and (c) with minimum overall and San Diego State University grade point averages of 2.0 in each of the three departments.

Emphasis in Education (Premajor Code: 49012) (Major Code: 49015)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

Completion of the Liberal Studies Emphasis in Education major fulfills General Education requirements.

A minor is not required with this major.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Preparation for the Major. Fifty-one units distributed as follows:

Language and Literature

1. **Composition** – Three units selected from Africana Studies 120; Linguistics 100; Mexican American Studies 111B; Rhetoric and Writing 100.
2. **Composition** – Three units selected from Africana Studies 200; Linguistics 200; Rhetoric and Writing 200.
3. **Speech** – Three units selected from Africana Studies 140; Mexican American Studies 111A; Speech Communication 103.
4. **Literature** – Three units selected from Comparative Literature 270A, 270B; English 220.

Mathematics

5. **Mathematics** – Mathematics 210 (Grade of C or better required for entrance into SDSU Multiple Subject Credential program).
6. **Mathematics** – Mathematics 211.

Science

7. **Life Sciences** – Three units (or four units including laboratory) selected from Biology 100, 100L, 101, 101L.
8. **Physical or Earth Sciences** – Three units (or four units including laboratory) selected from the physical sciences to include Astronomy 101, 109; Chemistry 100; Natural Science 100; Physics 103, 107; or three units (or four units including laboratory) selected from earth sciences to include Geography 101, 101L, 103, 103L; Geological Sciences 100, 101.
9. **Laboratory** – from either category 7 or 8.

Social Science and History

10. **Global Perspective** – Anthropology 102 or Geography 102.
11. **Western or World History** – Three units selected from History 100, 101, 105 (recommended), 106.
12. **American Institutions or Social Science** – Six units selected from General Education American Institutions courses (see section of catalog on "Graduation Requirements" for approved list); or Economics 100, 101, 102; Sociology 101. At least one American Institutions course should be taken at the lower division level.

Visual and Performing Arts and Humanities

13. **Music** – Music 102 (Grade of C or better required for entrance into SDSU Multiple Subject Credential program).
14. **Art/Dance/Drama** – Three units selected from Art 100, 101, 157, 158, 258, 259; Dance 181; Drama 100, 120.
15. **Values and Ethics** – Three units selected from Philosophy 101, 102, 103; Religious Studies 101.

Physical Education

16. **Physical Education** – Physical Education 241A, 241B (Grade of C or better required for entrance into SDSU Multiple Subject Credential program).

Human Growth and Development

17. **Individual Perspective** – Psychology 101.

Upper Division Writing Requirement. English 306W (very strongly recommended) or Rhetoric and Writing 500W, with a grade of C (2.0) or better.

Upper Division Major. Cultural Diversity Requirement: One three-unit course in the major or specialization must be selected from Comparative Literature 470*, History 415A*, 415B*, 420*, 421*, 473A*, 473B*, 475A*, 475B*, or from those Africana, American Indian, Mexican American, or Women's Studies courses indicated in this curriculum by an asterisk(*).

Introduction to the Major

18. **Liberal Studies 300.**

Language and Literature

- 19, 20. **Composition/Literature** – Six units selected from English 306A, 306W. English 306A and 306W must be taken together. Student must achieve a grade of C or higher in English 306W.

OR

Rhetoric and Writing 500W (Students must achieve a grade of C or higher.)

AND

Three units selected from Africana Studies 460*, Comparative Literature 470*, English 301, 302, 494, 501, Mexican American Studies 335*, Women's Studies 352*.

21. **Language Structure** – Linguistics 420.

22. **Child Language Acquisition** – Linguistics 452.

Mathematics

23. **Mathematics** – Mathematics 312.
24. **Mathematics** – Mathematics 313.

Science

Courses for the major together with courses for preparation for the major shall include at least one course from each of the three science categories: life science, physical science, earth science.

25. **Science** – Four units selected from Natural Science 412A (physical), 412B (earth), 412C (life).

26. **Science Elective** – Three units selected from:

Physical: Physics 201 (restricted to students in Communicative Disorders specialization), Physics 301, Astronomy 301.

Earth: Geological Sciences 301, 303, Oceanography 320.

Life: Biology 315, 319, 321, 324, 330, 336, 339, 454.

Interdisciplinary: (May be selected when three categories have been met) Natural Science 315, 316, 317, 333.

Social Science and History

If Number 11 in preparation for the major was satisfied with World History, then one course must be taken from the Western Civilization section; if Number 11 was satisfied with Western Civilization, then one course must be taken from the Non-Western Civilization section.

27. **History** – Three units selected from

Non-Western Civilization: Africana Studies 470*, History 415A*, 415B*, 420*, 421*, 473A*, 473B*, 475A*, 475B*.

OR

Western Civilization: History 305A, 305B, 407A, 407B.

28. **History** – Three units selected from any upper division American Institutions course (if not completed at the lower division level) or from number 27 above or from the following:

United States: Africana Studies 471A, 471B; American Indian Studies 440*; History 530, 548A, 548B; Mexican American Studies 350A*, 350B*. Cultural diversity course recommended.

Visual and Performing Arts and Humanities

- 29, 30. **Arts and Humanities** – Six units selected from Africana Studies 480*; Art 308, 387; Drama 310, 315; Humanities 401, 402, 403, 404; Mexican American Studies 310*; Music 343, 351A, 351B, 351C, 351D, 351E, 351F.

Human Growth and Development

31. **Child Development** – Psychology 330.
32. **Learning Theory** – Communicative Disorders 322.

Assessment

33. **Assessment in Liberal Studies** – Liberal Studies 498 and completion of the Liberal Studies Assessment Portfolio.

Specialization

34. **Specialization** – (See list of approved specializations below)

All students shall complete a 12 unit specialization. Many specializations require selection of lower division prerequisites included in preparation for the major. If additional prerequisites are required these are noted. Students may *not* double count courses in the upper division major (Numbers 18-33) and the specialization.

The specialization will be waived for any student who declares and completes an official minor or a second major. The minor or second major must be approved by the Liberal Studies Adviser.

Additional Prerequisites for SDSU Multiple Subject Credential Program

In addition to the requirements listed under preparation for the major and upper division major, the following courses are required for entrance into the Multiple Subject Credential programs at SDSU. Students must achieve a grade of C or higher.

Education 451, Linguistics 550 (required for CLAD), Policy Studies in Language and Cross-Cultural Education 515 (required for bilingual and CLAD programs).

Approved Specializations

Africana Studies

Twelve units selected from Africana Studies 330, 331, 332, 362, 380*, 420*, 445*, 452, 460*, 461, 463*, 471A, 471B, 480*, 485.

American Indian Studies

American Indian Studies 320*, 440*, 470*, and three units selected from American Indian Studies 303, 420, 430*, 450, 533.

Anthropology

Prerequisite: Anthropology 102.

Anthropology 350*; nine units selected from Anthropology 410, 424, 430, 432, 439, 526, 529, 532; of these nine units, three units may also be selected from Anthropology 440, 441, 442*, 443, 444, 445*, 446*, 448*, 449*, 450*, or 492* or 452*.

* Cultural diversity course.

Art

Prerequisite: At least three units selected from Art 258, 259.

Three units selected from Art 308, 387; three units selected from Art 560*, 561, 562, 576; three units selected from Art 557*, 558, 577*; three units selected from Art 561, 562, 564**, 568, 576.

Students with sufficient lower division coursework may request a specialization in Studio Arts to be approved by the Art Department.

* Prerequisites: Art 258 and 259.

** Prerequisite: Art 263.

Biology

Prerequisite: Biology 100, 100L or 101, 101L.

Twelve units selected as follows: Biology 315; Biology 336 and 436, or 410; Biology 330 and 330L, or 319 (recommended for those without 101, 101L); Biology 499 Research (1-2 units).

Child Development

(Includes one additional upper division unit.)

Prerequisite: Psychology 330.

Child and Family Development 335*, 371, 375, 376A*, 478.

* Prerequisites waived for Liberal Studies majors.

Classics

Classics 310, 320, 330, 340.

Communicative Disorders (Includes one additional upper division unit.)

Thirteen units selected from Communicative Disorders 350, 357* (1 unit), 396W*, 500*, 550.

* Prerequisites waived for Emphasis in Education majors.

Comparative Literature

Prerequisite: Three units selected from Comparative Literature 210, 270A, 270B.

Twelve units selected as follows: three units selected from Comparative Literature 405, 510, 511, 512, 514, 526; three units selected from Comparative Literature 440, 445, 455, 460; three units selected from Comparative Literature 470*, 561, 562, 563, 571; three units selected from those above or special topics courses as approved by the adviser.

* Cultural diversity course.

Drama

Prerequisite: Three units selected from Drama 100, 120, 130.

Creative Drama Focus: Three units selected from Drama 315, 329A-329B, 515; three units selected from Drama 310, 510; three units selected from Drama 460A, 460B; and three units of Drama 480.

Producing Plays in the Classroom Focus: (Additional prerequisite: Drama 240A or 240B - both preferred.) Drama 310, 315, 359* or 515 and 480.

* Prerequisite waived for Emphasis in Education majors.

English

Prerequisite: English 220.

Three units selected from English 302, 405, 533; three units selected from English 501, Comparative Literature 470*; three units selected from English 301, 493, Comparative Literature 594; three units selected from English 491, 494, 519, 520, 525, 548.

* Cultural diversity course.

Foreign Language

Twelve upper division units in any foreign language. Students who plan to enter the Bilingual Cross-Cultural Language and Academic Development (BCLAD) credential program, see specialization in Spanish. Other languages offered at San Diego State University include Chinese, Classics (Greek and Latin), French, German, Hebrew, Italian, Japanese, Portuguese, and Russian. Additional prerequisites may be required.

Geography

Prerequisite: Geography 102.

Geography 312 or 321; 354; 370; 378 or 401.

History

Twelve units selected from Africana Studies 471A, 471B; American Indian Studies 440*; History 407A, 407B, 415A*, 415B*, 420*, 421*, 440, 441, 442A, 442B, 473A*, 473B*, 475A*, 475B*, 487, 500A, 500B, 501, 530, 531, 540, 541A, 541B, 545A, 547A, 548A, 549; Mexican American Studies 350A*, 350B*; Women's Studies 340*, 341A, 341B.

* Cultural diversity course.

Linguistics

Linguistics 550 or 553; 551 or 524; 552. Three units selected from previous list or Linguistics 521, 522, 525, 530, Anthropology 410.

Mathematics

Mathematics 121. Nine units selected from Mathematics 302*, 303, 309, 357*, 414.

* Mathematics 121 acceptable as prerequisite.

Mexican American Studies

Twelve units selected from Mexican American Studies 310* (recommended), 320*, 324, 335*, 350A*, 350B*, 376*, 464 (recommended), 480 (recommended).

* Cultural diversity course.

Music

Prerequisites: Music 102; 110A, 110B, 110C, or 110D (1 unit); 115A; 240.

Music 343, 345; three units selected from Music 351A-351F, Africana Studies 480, Mexican American Studies 310*; three units selected from Music 369*, 370*, 374*, 375*, 376*, 380*, 385*, 386*, 389*, 420 (recommended).

* Maximum credit per course is two units. Consent of instructor required. Previous experience playing an instrument required except for Music 385 and 386.

Natural Science

(Includes one additional lower division unit and one additional upper division unit.)

Prerequisites: Biology 100, 100L, and Physics 107. Three units selected from Physics 301, Natural Science 317, 333; three units selected from Geological Sciences 302, Biology 330, 336, 341; three units selected from Geological Sciences 303, Oceanography 320; four units selected from Natural Science 412A, 412B, 412C.

Performing Arts Specialization

(Depending on courses may include one additional upper division unit or two lower division units and eleven upper division units.)

Additional prerequisites: Dance 111 and 285, Dance 486; Music 345; three units selected from Drama 315, 480; three units selected from Drama 329A-329B, Music 340*, 351.

* Prerequisite waived for Emphasis in Education majors.

Physical Education

Prerequisites: Physical Education 241A, 241B. Physical Education 301*, 335*, 347A*, 347B*, 348, 398 (1 unit).

* Prerequisites for this course which are not required as part of the major or specialization are waived for Emphasis in Education majors.

Political Science

Twelve units selected from Political Science 301A, 301B, 302, 305, 334, 338, 346, 348, 357, 359, 361, 362, 363, 375, 422, 425, 426, 436, 481, 482, 530, 531, 562, 566, 567, 568.

Psychology

Prerequisite: Psychology 101. Additional prerequisite: Psychology 211.

Psychology 340; nine units selected from Psychology 350, 351, 432 (highly recommended), 452, 454, 456.

Religious Studies

Prerequisite: Religious Studies 101 or 102.

Twelve units selected from Religious Studies 300 (highly recommended), 353, 354, 360, 363, 365 (recommended).

Sociology

Prerequisite: Sociology 101.

Twelve units selected from Sociology 320, 355*, 410, 421, 433, 441, 444, 445, 455, 517, 539, 555.

Spanish

Additional prerequisite: Spanish 202 and 212 or equivalent proficiency.

Spanish 301, 302, 350, and three units selected from Spanish 405A, 405B, 406A, 406B.

Women's Studies

Twelve units selected from Women's Studies 310*, 320*, 325*, 330, 340*, 351, 352*, 356, 370*, 375*, 485*.

* Cultural diversity course.

OFFICE: Business Administration 327

TELEPHONE: (619) 594-5268

Faculty

Emeritus: Elgin, Frey

Chair: Underhill

Professors: Bar-Lev, Donahue, Johns, Robinson, Underhill

Associate Professors: Choi, Kaplan, Poole, Seright, Webb

Offered by the Department of Linguistics and Oriental Languages

Master of Arts degree in linguistics.

Major in linguistics with the B.A. degree in liberal arts and sciences.

Teaching major in linguistics for single subject teaching credential in English.

Minor in linguistics.

Certificate in applied linguistics and English as a second language (ESL).

The Major

Linguistics is the scientific study of language. The structure of a wide variety of languages is looked at, not to learn these languages, but to learn about them in order to understand the universal properties of human language.

The linguistics program offers coursework in all areas of linguistic analysis: the core areas of phonology, syntax, semantics, and historical linguistics; and interdisciplinary areas such as applied linguistics, sociolinguistics, psycholinguistics, bilingualism, computational linguistics, and the linguistics of certain languages and language families.

Linguistics majors must complete a minor in another field approved by the adviser in linguistics. Recommended fields include anthropology, communicative disorders, ethnic studies, a foreign language, history, journalism, literature, philosophy, psychology, public administration and urban studies, sociology, and speech communication.

In addition to the major and minor programs, the Department of Linguistics and Oriental Languages offers a Certificate in Applied Linguistics and English as a Second Language (ESL). This certificate prepares students to teach English as a second language in adult and private schools and to teach English in foreign countries.

Employment opportunities for linguistics majors exist in the teaching of English as a second language to immigrant and refugee populations in various locales throughout the southwestern United States. In addition, many students are interested in teaching English in Latin America, the Far East, or other areas outside the United States and continental Europe. Linguistics training can also be used as a valuable skill in conjunction with a California teaching credential in another field. Government work is another alternative, where such divisions as the state department and the foreign service hire trained linguists. Researchers are needed at institutes working in the fields of animal communication, computer science development, disorders of communication, or advanced research in linguistics theory. By combining a linguistics major with courses in accounting, business administration, or related fields, there are jobs available with multinational corporations, particularly those which emphasize trade among the Pacific rim nations. Linguists are also hired in such fields as computer science, advertising, communication media, public relations, and curriculum development.

With a master's or doctoral degree, linguistics majors may find teaching positions at community colleges or universities.

Linguistics

In the College of Arts and Letters

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Linguistics Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15051)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in linguistics courses can apply to the degree.

Students majoring in linguistics must complete a minor in another field approved by the departmental adviser in linguistics. Recommended fields include anthropology, communicative disorders, ethnic studies, a foreign language, history, journalism, literature, philosophy, psychology, public administration and urban studies, sociology, and speech communication.

Preparation for the Major. Linguistics 101, (3 units)

Students should note that a number of the upper division required and recommended courses listed below have lower division prerequisites, but these prerequisites do not constitute requirements per se for the completion of the major.

Foreign Language Requirement. Competency equivalent to that which is normally attained through three college semesters of a foreign language with a B (3.0) average, or the equivalent. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or Linguistics 396W, Rhetoric and Writing 305W or 500W with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units is required; at least 18 of these must be in Linguistics (and those 18 must include Linguistics 420 or 520 and 521 and 522); with the approval of the adviser, up to six units may be selected from related fields.

Linguistics Major

For the Single Subject Teaching Credential in English
With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15051)

Preparation for the Major. Linguistics 101; Linguistics 100 or Rhetoric and Writing 100; Linguistics 200 or Rhetoric and Writing 200; Comparative Literature 270A or 270B or English 220; Drama 120 or Humanities 140; three units selected from Drama 115, English 280, 281, Journalism 200, 220, Speech Communication 135, and one of the following sequences: English 250A and 250B or English 260A and 260B. (24 units)

Upper Division Writing Requirement. Linguistics 305W or 396W or English 508W or Rhetoric and Writing 500W with a grade of C (2.0) or better.

Major. A minimum of 42 upper division units to include Linguistics 420 or 520; Linguistics 521, 522, 550, 551; Linguistics 525 or 530; Linguistics 452 or 552; Comparative Literature 562 or Drama 310 or 480; English 533; Rhetoric and Writing 509; Speech Communication 335. Three units selected from Africana Studies 460, 461, 462, 463, 464; American Indian Studies 430; English 519, 520; Mexican American Studies 335, 464; Women's Studies 352. Three units selected from



Drama 460B; English 541A, 541B, Journalism 408; Philosophy 531; Speech Communication 360, 391, 407, 475, 491. One course selected from the following area not covered at the lower division level: English 560A or 560B (for students who took English 250A and 250B); English 522, 523, 524, 525 (for students who took English 260A and 260B).

Minor in Linguistics

The minor in linguistics consists of a minimum of 15 units, 12 of which must be upper division units and at least 12 of which must be from linguistics.

The student must select a specialization from one of the following subject areas. The following courses are appropriate for all subject areas: Linguistics 101, 420, 520, 521, 522, 524, 551, 552. Linguistics 496 and 499 may be appropriate for any area depending on content.

Descriptive and Theoretical Linguistics: Linguistics 525, 530, 550; Philosophy 531.

Applied Linguistics: Linguistics 354, 452, 525, 530, 550, 553; Anthropology 410.

Historical Linguistics: Linguistics 410.

Linguistics and English (recommended for English majors): Linguistics 410, 525, 530, 550; Anthropology 410.

Linguistics and Foreign Languages (recommended for foreign language majors): Linguistics 410, 550, 553; Anthropology 410.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Applied Linguistics and English as a Second Language (ESL) Certificate

The Department of Linguistics and Oriental Languages offers a basic and an advanced Certificate in Applied Linguistics and English as a Second Language (ESL). The basic certificate requires 12 units to include Linguistics 420 or 520, 452 or 552, 524 or 551, and 550. Under certain circumstances comparable courses taken at other institutions may count toward the certificate. Such courses must be evaluated and approved by the certificate adviser. In addition, there is a 15-hour tutoring practicum requirement. In order to enroll, you must contact the certificate adviser in the Department of Linguistics and Oriental Languages. Courses in the certificate may be counted toward the major in linguistics but may not be counted toward the minor.

Refer to the Graduate Bulletin for information on the advanced certificate.

Courses

LOWER DIVISION COURSES General

101. Introduction to Language (3) I, II

The nature of language. Sound, meaning, and grammar. Language history and change. Dialects and variation. Language acquisition. Animal communication. Language and the brain. Not open to students with credit in upper division linguistics courses.

240. A Foreign Language Experience (1)

Practice in strategies for acquisition of elementary fluency in speaking a foreign language, through a linguistics-based (acquisition-oriented) approach. May be repeated with new content. Students may not repeat content covered in Linguistics 242. Maximum credit three units.

242. Experiences in Foreign Language Study (3)

Study of multiple languages, to enhance language-learning abilities through a linguistics-based (acquisition-oriented) approach. Students may consult with department to receive list of languages offered. Students may not repeat content covered in Linguistics 240. (Formerly numbered Linguistics 340.)

250. Directed Language Study (3) I, II

Prerequisite: Consent of instructor.

Directed independent study of a foreign language not offered at San Diego State University with aim of acquiring a developing competency in the language. May include speaking, listening, reading, writing, and grammar. May be repeated with approval of undergraduate adviser. Maximum credit six units.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

English Composition for International Students

100. English Composition for International Students (3)

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements. (See Graduation Requirements section of catalog.) **Proof of completion of prerequisites required:** Copy of EPT or competency scores (including ISEPT) or verification of exemption; proof of Cr in Rhetoric and Writing 92A or 92B or 97A or 97B, or notification from the Department of Rhetoric and Writing Studies.

Introduction to college-level written English; attention to English language/grammar needs of non-native speakers of English; grammatical and rhetorical techniques for effective writing, based in part on study of models of current American writing. Not open to students with credit in Africana Studies 120 or English 100 or higher-numbered composition or creative writing course or Mexican American Studies 111B.

200. Advanced English for International Students (3)

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements; and Linguistics 100. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Further practice in mastering conventions of standard academic writing, with emphasis on strategies for research in writing papers. Focus on language issues specific to non-native speakers of English. Not open to students with credit in Africana Studies 200 or English 200.

UPPER DIVISION COURSES (Intended for Undergraduates)

305W. Advanced Composition for International Students (3) I, II

Prerequisites: Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Advanced expository writing, with practice in the various associated skills (organization, research, presentation, rhetoric). The goal is to enable non-native English speakers to function competently with written English on advanced university levels.

354. Language and Computers (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Computers, computer programming languages, and "artificial intelligence" viewed from perspective of human language. Not open to students with credit in Linguistics 554.

396W. Writing Proficiency (1)

Prerequisite: Consent of instructor. Limited to linguistics majors. Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Upper division writing course taken in conjunction with any 500-numbered linguistics course. Emphasizes composition skills in research methods, essay organization, paragraphing, sentence structure, and diction, all related to the particular 500-level linguistics course chosen.

397. Writing for Graduate Students (3) (Offered only in Extension)

To assist graduate students, particularly those for whom English is a second language, in writing theses or other assigned papers for courses in their majors. Focus on students' writing needs, including writing style, mechanics, grammar, and other issues. Does not apply to undergraduate degrees or credentials.

410. History of English (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

The history of English and its present day use.

420. Linguistics and English (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Introduction to sound and grammatical structure of language, with special attention to English. Language acquisition and variation. Of special interest to prospective teachers. Not open to students with credit in Linguistics 520.

452. Language Acquisition (3) I, II

Prerequisite: Credit or concurrent registration in Linguistics 101, 420, or 520.

Principles of child language development. Sounds and grammar in speech of young children. Acquisition of reading and vocabulary. Relationship between cognitive development and language. Development of language in bilinguals. Second language acquisition.

496. Experimental Topics in Linguistics (1-4) I, II

Specialized study of a selected topic in linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

520. Fundamentals of Linguistics (3) I, II, S

Prerequisite: Upper division standing.

Principles of modern linguistics, with attention to English grammar (syntax, morphology, phonology). Language change, dialects, sociolinguistics, psycholinguistics, language acquisition.

521. Phonology (3) I, II

Prerequisite: Linguistics 420 or 520.

Introduction to the theoretical principles of transformational-generative phonology.

522. Syntax (3) I, II

Prerequisite: Linguistics 420 or 520.

Introduction to the theoretical principles of transformational-generative syntax.

524. American Dialectology (3) I, II

Prerequisite: Upper division standing.

Development of American English. Regional, social, and ethnic differences in pronunciation, grammar, and vocabulary. Differences in men's and women's language. Black English.

525. Semantics and Pragmatics (3)

Prerequisite: Linguistics 420 or 520.

Advanced semantic theory; systematic analysis of the interaction of sequences of language with real world context in which they are used.

530. English Grammar (3) I

Prerequisite: Six upper division units in linguistics.

English morphology, syntax, and discourse structure, including simple and complex sentence structure; lexical categories and sub-categories; discourse functions of selected constructions. Problems and solutions in teaching English grammar.

550. Theory and Practice of English as a Second Language (3) I, II

Prerequisite: Linguistics 420 or 520.

The nature of language learning; evaluation of techniques and materials for the teaching of English as a second language.

551. Sociolinguistics (3) I, II

Prerequisite: A course in introductory linguistics.

Investigation of the correlation of social structure and linguistic behavior.

552. Psycholinguistics (3) I, II

Prerequisite: A course in introductory linguistics.

Psychological aspects of linguistic behavior.

553. Bilingualism (3)

Prerequisite: Linguistics 420 or 520 or Communicative Disorders 500.

Bilingual societies; language choice by bilinguals; bilingual language acquisition; effects of bilingualism on language structure and use.

596. Selected Topics in Linguistics (1-3)

Prerequisite: Upper division standing.

Advanced study of selected topics. See Class Schedule for specific content. May be repeated with new content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES Refer to the Graduate Bulletin

Management

In the College of Business Administration

OFFICE: Student Services 3356
TELEPHONE: (619) 594-5306

A Member of the American Assembly of
Collegiate Schools of Business.

Faculty

Emeritus: Atchison, Brady, Mitton, Pierson, Robbins, Srbich
Chair: Marino
Professors: Belasco, Butler, De Noble, Ghorpade, Hampton,
Hergert (Associate Dean and Director, Graduate Program), Marino,
Wright
Associate Professors: Ehrlich, Rhyne, Teagarden
Assistant Professor: Dunn

Offered by the Department

Master of Science degree in business administration.
Master of Business Administration.
Major in management with the B.S. degree in business administration.
Teaching major in business for the single subject teaching credential.
Minor in management.
Minor in small business management (available at Imperial Valley Campus only).
Certificate in business administration (available at Imperial Valley Campus only).

Admission to the Major

The undergraduate business administration program at San Diego State University is structured such that students desiring a business administration major are first admitted to the pre-business administration major for their first two years of university work. During these first two years students should complete general education courses and a common core of nine lower division preparation for the business major courses - Accountancy 201, Financial Accounting Fundamentals; 202, Managerial Accounting Fundamentals; Finance 140, Legal Environment of Business; Economics 101, Principles of Economics (Macro); Economics 102, Principles of Economics (Micro); Information and Decision Systems 180, Principles of Information Systems; Information and Decision Systems 290, Business Communication; Mathematics 119, Elementary Statistics for Business; and Mathematics 120, Calculus for Business Analysis. These prerequisite courses may not be taken Cr/NC; the minimum grade in each class is C. All students must achieve a passing score on a quantitative competency examination. Students must have completed 56 college units.

Supplemental admissions criteria must be met before students may declare an upper division major and be eligible for upper division courses. For current information concerning admissions criteria and procedures, contact the Undergraduate Business Advising Office in the College of Business Administration.

Also, before enrolling in upper division courses offered by the College of Business Administration, students must be competent in the operation of personal computers, including word processing and spreadsheets. These skills are required in upper division business courses.

Business administration majors may not complete a minor in the

College of Business Administration.

Retention Policy

The College of Business Administration is concerned that each individual upper division student makes reasonable academic progress toward earning a degree. To this end, the College will counsel students who have earned less than a "C" (2.0) average each semester. Further, such students will be warned that continued poor performance may result in their removal from any business major.

Transfer Credit

Lower Division: Courses clearly equivalent in scope and content to San Diego State University courses required for minors or as preparation for all business majors will be accepted from regionally accredited United States institutions and from foreign institutions recognized by San Diego State University and the College of Business Administration.

Upper Division: It is the policy of the San Diego State University College of Business Administration to accept **upper division transfer credits** where (a) the course content, requirements, and level are equivalent to San Diego State University courses and (b) where the course was taught in an American Assembly of Collegiate Schools of Business accredited program. Exceptions require thorough documentation evidencing the above standards.

The Major

Managers are responsible for achieving organizational objectives by coordinating money, materials, machines, and most important of all, the efforts of people. Managers set objectives, establish policies, plan, organize, direct, communicate, and make decisions. Since their principal concern is solving problems, managers are continually defining problems and seeking solutions.

To be an effective manager, an individual needs a broad knowledge of the practice of management, the workings of business and the economy, and the behavior of people. The knowledge obtained in the bachelor's degree should be sufficient to qualify the student for a broad range of beginning managerial positions in business organizations. The graduate in management is prepared not only for managerial functions, but for those functions set within the context of a particular type of operation.

Recent government and private manpower studies indicate that the demand for professional managers should continue to increase. While the types of employment secured by management graduates are varied, a recent study conducted by the management department showed that many graduates have gone into the following types of positions:

Production and operations managers supervise manufacturing and service operations, and are responsible for scheduling production and operations activities and controlling operational costs.

Sales managers hire, train, and supervise sales personnel, evaluate the work of sales people, and develop incentive programs.

Financial managers supervise operations in banks, security exchanges, credit unions, and savings and loan associations.

Merchandising managers supervise operations in retail stores.

Organization and management analysts design and evaluate organizational structures and jobs.

International managers supervise foreign-based manufacturing and/or marketing operations for American companies; and

Corporate planners develop strategic plans for corporations.

Management Major

With the B.S. Degree in Business Administration
(Major Code: 05061)

Preparation for the Major. Accountancy 201, 202; Finance 140; Information and Decision Systems 180, 290; Economics 101, 102; Economics 201 or Mathematics 119; and Mathematics 120 or 150. (27-29 units)

These prerequisite courses may not be taken Cr/NC; the minimum grade in each class is C. **Additional progress requirements must be met before a student is admitted to an upper division major.**

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. Thirty-six upper division units consisting of Management 350, 352, 356; Finance 323; Information and Decision Systems 301, 302; Marketing 370; three units from Information and Decision Systems 404; Management 405, 450 or 458; six units from Management 451, 452, 453, 454, 460; and six units selected from any upper division course in Management, Accountancy, Economics, Finance (except Finance 317), Information and Decision Systems, Marketing, or African Studies 445, 452; American Indian Studies 320, 450; Anthropology 350, 444; Asian Studies 560; Geography 353; History 480, 546A, 546B; Mexican American Studies 320; Natural Science 333; Philosophy 329, 333; Political Science 346; Psychology 321, 326, 340; Social Work 350; Sociology 355, 401, 403, 410, 430, 431, 531; Speech Communication 307, 406, 407, 475; Women's Studies 320, 485.

A minimum of 52 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration and economics. A maximum of six lower division units of accountancy courses may be used to satisfy degree requirements. Of the 128 units required for the degree, at least 60 units must be at the upper division level. A "C" average is required in the courses stipulated here for the major.

Business Major

For the Single Subject Teaching Credential
With the B.S. Degree in Business Administration

All candidates for the single subject teaching credential in business must complete all requirements for the applicable specialization as outlined in this section of the catalog under Policy Studies or Teacher Education. Students must complete the requirements of a major in one of the five departments within the College of Business Administration. In consultation with the single subject credential adviser in the College of Business Administration, undergraduate students must develop programs which fulfill the State credential requirements. All undergraduate majors must demonstrate office skills proficiency. Finance 589, Personal Financial Planning, is required of all teaching credential majors. Of the 128 units required for the degree, at least 60 units must be at the upper division level.

Student program must be approved in advance by the College of Business Administration single subject credential adviser.

Management Minor

The minor in management consists of a minimum of 21 units to include Accountancy 201; Economics 101, 102; Management 350, 352, 356, and 451 or 454.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units

must be completed at San Diego State University. Students with a major in the College of Business Administration may not complete a minor in the College of Business Administration. Additional requirements must be met before the student may obtain permission to declare a business minor. See an adviser in the Business Advising Center for more information.

Small Business Management Minor

(Imperial Valley Campus)

The minor in small business management consists of a minimum of 24 units to include Economics 101, 102; Accountancy 201, 202; Management 350, 450; Marketing 370; and three units selected from Finance 323, Information and Decision Systems 360, Management 352.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Certificate in Business Administration

(Imperial Valley Campus)

This certificate is designed primarily for persons who want to gain an increased understanding of essential principles through upper division business courses, and for students who decide to go on to pursue the B.S. degree with a major in either management, finance, accounting, marketing, information systems, or real estate at the San Diego campus. For those not seeking the B.S. degree it provides a program designed to give self-improvement opportunities for the purpose of securing employment, promotion or upward mobility on the job.

All students seeking admission to the program must have successfully completed 56 transferable lower division units with a grade point average of 2.0. This includes completion of the lower division preparation required for any business administration major, i.e., Accountancy 201, 202; Finance 140; Information and Decision Systems 180, 290; Economics 101 and 102; Mathematics 119 or Economics 201, and Mathematics 120 or 150.

The certificate will be awarded upon successful completion of the following courses: Finance 323; Information and Decision Systems 301 or 302; Management 350; Marketing 370; and three units selected from Finance 321, 589; or Management 356. (15 units)

Courses

LOWER DIVISION COURSE

202. Business Professions (1) Cr/NC 1, II

Students explore career options, analyze and evaluate career decisions through self assessment and career research. Computer programs and resources in Career Services library used to identify potential career.

UPPER DIVISION COURSES (Intended for Undergraduates)

350. Management and Organizational Behavior (3) I, II

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration. **Proof of completion of prerequisite required:** Change of major form or other evidence of acceptable major code.

Human behavior at individual, interpersonal, and group levels including effect of organization structure on behavior. Emphasis on managerial roles, historical evolution of management, ethics, and behavior in multicultural contexts. Not open to students with credit in Management 351.

352. Human Resource Management (3) I, II

Prerequisite: Management 350. Recommended: Information and Decision Systems 301.

The employment relationship. Functions and techniques; role of government, unions, behavior, and environmental variables in human resource management.

356. Social and Ethical Issues in Business (3) I, II

Prerequisite: Management 350.

Ethics of various issues in business, including social responsibility, environmental protection, privacy, individual rights, occupational safety and health, product liability, equality of opportunity, and the morality of capitalism.

401. Business Internship (3) Cr/NC I, II

Prerequisite: Consent of faculty adviser.

Internship with business firms, nonprofit organizations, or government agencies. Work done under joint supervision of intern organization and course instructor.

405. International Business Strategy and Integration (3) I, II

Prerequisites: Management 350, Finance 323, Information and Decision Systems 301 or 302, Marketing 370. **Proof of completion of prerequisites required:** Copy of transcript.

Integration of business administration principles and concepts for strategy design, implementation, and control in domestic, international, and global markets. Establishment of top management policy emphasized through case studies, experiential exercises, and simulations.

450. Venture Management (3) I, II

Prerequisites: Management 350, Finance 323, Information and Decision Systems 301 or 302, Marketing 370. **Proof of completion of prerequisites required:** Copy of transcript.

Process of initiating, expanding, purchasing, and consolidating businesses. Concepts, theories, and techniques of managerial innovation and implementation.

451. Organization Design and Change (3) I, II

Prerequisite: Management 350.

Management of organization design and development. Internal and external organizational factors such as environment, size, technology, power, politics, strategy, human resources, job design, and organization culture.

452. Compensation Administration (3)

Prerequisite: Management 352.

Design of compensation programs including determination of wage levels, development of wage structures, performance pay systems, benefit plans, and administration of wages and benefits. Effect of economic, psychological, and legal factors on design and implementation of compensation programs.

453. Issues in Regulation of Employment Relationship (3)

Prerequisite: Management 352.

Public policy and the employment relationship. Patterns and practices of conflict resolutions. Emerging labor sectors and selected issues in the employment relationship.

454. Interpersonal Processes (3) I, II, S

Prerequisite: Management 350.

Conceptual study and experiential training in interpersonal skills of management; acquisition of personal, managerial, and entrepreneurial behavioral competencies.

457. Applications in Management (1-3) I, II

Prerequisite: Consent of instructor.

Developing specific skills in areas of management. See Class Schedule for specific content.

458. Management Decision Games (1-3) II

Prerequisites: Consent of instructor. Management 350, Finance 323, Information and Decision Systems 301 or 302, Marketing 370. **Proof of completion of prerequisites required:** Copy of transcript.

Integrated managerial decision making within a dynamic environment through the use of business games.

460. Personnel Staffing and Development (3)

Prerequisite: Management 352.

Design of personnel activities for matching people and jobs. Includes development of techniques for personnel planning, staffing, appraisal, and development. Environmental constraints including legal and market forces.

496. Selected Topics in Management (1-4)

Prerequisite: Consent of department chair.

Selected areas of concern in management; see Class Schedule for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

498. Investigation and Report (1-3) I, II

Prerequisites: Senior standing and consent of instructor.

A comprehensive and original study of a problem connected with management under the direction of one or more members of the management staff. May be repeated with new content. Maximum credit six units.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

**UPPER DIVISION COURSE
(Also Acceptable for Advanced Degrees)**

596. Advanced Topics in Management (3)

Prerequisite: Six upper division units in management.

Advanced special topics in management. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

**GRADUATE COURSES
Refer to the Graduate Bulletin.**

Marketing

In the College of Business Administration

OFFICE: Student Services 3356

TELEPHONE: (619) 594-5317

A Member of the American Assembly of Collegiate Schools of Business.

Faculty

Emeritus: Akers, Apple, Barber, Darley, Hale, Lindgren, McFall, Settle

Chair: Belch, G.

Professors: Belch, G., Belch, M., Haas, Krentler, Sciglimpaglia, Stampfl, Tyagi, Vanier, Wotruba

Associate Professor: Saghafi

Offered by the Department

Master of Science degree in business administration.

Master of Business Administration.

Major in marketing with the B.S. degree in business administration.

Teaching major in business for the single subject teaching credential.

Minor in marketing.

Admission to the Major

The undergraduate business administration program at San Diego State University is structured such that students desiring a business administration major are first admitted to the prebusiness administration major for their first two years of university work. During these first two years students should complete general education courses and a common core of nine lower division preparation for the business major courses - Accountancy 201, Financial Accounting Fundamentals; 202, Managerial Accounting Fundamentals; Finance 140, Business Law; Economics 101, Principles of Economics (Macro); Economics 102, Principles of Economics (Micro); Information and Decision Systems 180, Principles of Information Systems; Information and Decision Systems 290, Business Communication (not required for accounting majors); Mathematics 119, Elementary Statistics for Business; and Mathematics 120, Calculus for Business Analysis. These prerequisite courses may not be taken Cr/NC; the minimum grade in each class is C. All students must achieve a passing score on a quantitative competency examination. Students must have completed 56 college units.

Supplemental admissions criteria must be met before students may declare an upper division major and be eligible for upper division courses. For current information concerning admissions criteria and procedures, contact the Undergraduate Business Advising Office in the College of Business Administration.

Also, before enrolling in upper division courses offered by the College of Business Administration, students must be competent in the operation of personal computers, including word processing and spreadsheets. These skills are required in upper division business courses.

Business administration majors may not complete a minor in the College of Business Administration.

Retention Policy

The College of Business Administration is concerned that each individual upper division student makes reasonable academic progress toward earning a degree. To this end, the College will counsel students who have earned less than a "C" (2.0) average each

semester. Further, such students will be warned that continued poor performance may result in their removal from any business major.

Transfer Credit

Lower Division: Courses clearly equivalent in scope and content to San Diego State University courses required for minors or as preparation for all business majors will be accepted from regionally accredited United States institutions and from foreign institutions recognized by San Diego State University and the College of Business Administration.

Upper Division: It is the policy of the San Diego State University College of Business Administration to accept *upper division transfer credits* where (a) the course content, requirements, and level are equivalent to San Diego State University courses and (b) where the course was taught in an American Assembly of Collegiate Schools of Business accredited program. Exceptions require thorough documentation evidencing the above standards.

The Major

Marketing is defined as "the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational objectives." (American Marketing Association, 1986.)

The marketing major studies how products and services are developed, priced, promoted, distributed and sold. The process requires an understanding of buyer and seller behavior within the context of the overall market environment. Added emphasis is given to the important area of global markets with their own particular nuances.

Marketing is an essential part of every business. Not-for-profit organizations also have to market their products/services, and the marketing discipline addresses the special needs of such organizations.

The employment outlook for graduates in marketing continues to be very favorable in all areas, especially in sales for those who hold the bachelor's degree. Some of the more common career opportunities for marketing graduates include:

Sales, which is the most common source of employment for recent marketing graduates. Sales people supervise retailing operation in large department stores, serve as sales representatives for manufacturers and wholesalers, and sell a variety of services and equipment.

Advertising and promotion specialists such as copywriters assemble information on products and services, study the characteristics of potential consumers, and prepare written materials to attract attention and stimulate interest among customers; advertising managers supervise the promotional activities of retailers, wholesalers, or manufacturers; account executives represent advertising agencies in negotiating contracts with clients for advertising services, offer advice in problem areas, and serve as troubleshooters in disputes between clients and the agency; media directors coordinate the purchasing of space in newspapers and magazines and arrange for commercials on radio and television; and production managers supervise the work of copywriters, artists, and other members of an advertising team.

Market research specialists collect, analyze, and interpret data to determine potential sales of a product or a service. They organize and supervise surveys, study the results by using statistical tests, and prepare reports with recommendations for management.

Product specialist/managers plan and coordinate the marketing functions specific to particular product(s)/brands.

Physical distribution specialists are responsible for the warehousing of products, the packing of shipments, and the delivery of orders to retailers or consumers.

Purchasing specialists, commonly known as buyers, acquire the materials and the services that are essential to the operation of a business or organization.

Marketing Major

With the B.S. Degree in Business Administration
(Major Code: 05091)

Preparation for the Major. Accountancy 201, 202; Economics 101, 102; Finance 140; Information and Decision Systems 180, 290; Mathematics 120 or 150; and Economics 201 or Mathematics 119. (27-29 units)

These prerequisite courses may not be taken Cr/NC; the minimum grade in each class is C. **Additional progress requirements must be met before a student is admitted to an upper division major.**

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. Forty-six upper division units consisting of Marketing 370, 371, 470, 479; Finance 323; Information and Decision Systems 301, 302; Management 350, 405; sixteen units selected from Marketing 372, 373, 376, 377, 472, 473, 474, 476, 478. A minimum of 52 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration and economics. A maximum of six lower division units of accountancy courses may be used to satisfy degree requirements. Of the 128 units required for the degree, at least 60 units must be at the upper division level. A "C" average is required in the courses stipulated here for the major.

Business Major

For the Single Subject Teaching Credential
With the B.S. Degree in Business Administration

All candidates for the single subject teaching credential in business must complete all requirements for the applicable specialization as outlined in this section of the catalog under Policy Studies or Teacher Education. Students must complete the requirements of a major in one of the five departments within the College of Business Administration. In consultation with the single subject credential adviser in the College of Business Administration, undergraduate students must develop programs which fulfill the State credential requirements. All undergraduate majors must demonstrate office skills proficiency. Finance 389, Personal Financial Planning, is required of all teaching credential majors. Of the 128 units required for the degree, at least 60 units must be at the upper division level.

Student program must be approved in advance by the College of Business Administration single subject credential adviser.

Marketing Minor

The minor in marketing consists of a minimum of 21 units to include Marketing 370; Accountancy 201; Economics 102; and 12 units selected from Information and Decision Systems 301, Marketing 371, 372, 373, 376, 377, 470, 472, 473, 474, 478.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University. Students with a major in the College of Business Administration may not complete a minor in the College of Business Administration. Additional requirements must be met before the student may obtain permission to declare a business minor. See an adviser in the Business Advising Center for more information.

Courses

UPPER DIVISION COURSES (Intended for Undergraduates)

370. Marketing (3) I, II

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration. **Proof of completion of prerequisite required:** Change of major form or other evidence of acceptable major code. Marketing majors must complete this course with a minimum grade of C (2.0).

Function of marketing in the organization and in society. Topics include market analysis and consumer behavior, product planning, pricing, promotion, distribution, and international marketing.

371. Consumer and Buyer Behavior (4) I, II

Prerequisite: Marketing 370 with a minimum grade of C (2.0). **Proof of completion of prerequisite required:** Copy of transcript.

Personal, social, and cultural factors that distinguish identifiable market segments and influence buyers' and consumers' responses to marketing programs.

372. Retail Marketing Methods (4) I, II

Prerequisite: Marketing 370 with a minimum grade of C (2.0) **Proof of completion of prerequisite required:** Copy of transcript.

Retail store and direct retail marketing organization, site location, personnel, promotion, purchasing, merchandising, inventory, and control methods.

373. Marketing Communication and Promotion (4)

Prerequisite: Marketing 370 with a minimum grade of C (2.0). **Proof of completion of prerequisite required:** Copy of transcript.

Communication and promotion theory; advertising, personal and media selling, public relations, and publicity strategy, methods, measurement, and ethics.

376. Global Marketing Strategy (4) I, II

Prerequisite: Marketing 370 with a minimum grade of C (2.0). **Proof of completion of prerequisite required:** Copy of transcript.

International marketing and trade principles; comparative economic and sociocultural systems; entry, counter-trading, transfer pricing, and promotion.

377. Selling Strategy and Practices (4) I, II

Prerequisite: Marketing 370 with a minimum grade of C (2.0). **Proof of completion of prerequisite required:** Copy of transcript.

Selling strategy and practices as an integral part of the total marketing system, including territory management, consultative selling, negotiation, and system selling.

470. Marketing Research (4) I, II

Prerequisites: Completion of lower division courses in the major or minor. A minimum grade of C (2.0) in Information and Decision Systems 301 and Marketing 370. **Proof of completion of prerequisites required:** Copy of transcript. Recommend concurrent registration in Marketing 470L.

Methods of information generation and interpretation for marketing decisions; research design, data sources and collection, analysis and reporting techniques.

470L. Marketing Research Laboratory (1)

Two hours of laboratory.

Prerequisites: Completion of lower division courses in the major or minor. A minimum grade of C (2.0) in Information and Decision Systems 301 and Marketing 370. **Proof of completion of prerequisites required:** Copy of transcript. Recommend concurrent registration in Marketing 470.

Computer practicum. Use of SPSS computer programs for analysis of marketing research survey and experimental data.

472. Advertising Management (3)

Prerequisites: Marketing 371 and 373; concurrent registration in Marketing 478. **Proof of completion of prerequisites required:** Copy of transcript.

Advertising and sales promotion functions and management; program design, integration, coordination, evaluation, and control.

473. Sales Management (4) I, II

Prerequisite: Marketing 370 with a minimum grade of C (2.0). **Proof of completion of prerequisite required:** Copy of transcript.

Sales force organization, recruitment, selection, training, compensation, evaluation, and control; sales analysis, costs, budgets, and quotas; coordination with personal selling.

474. Business Marketing (4) I, II

Prerequisite: Marketing 370 with a minimum grade of C (2.0). **Proof of completion of prerequisite required:** Copy of transcript.

Marketing practices and strategy designed for organizational customers; focuses on purchasing practices of organizational customers and development of marketing mixes for private, commercial, institutional, and governmental markets, both domestic and global.

476. Advanced Marketing Research (4) I, II

Prerequisite: Marketing 470. **Proof of completion of prerequisites required:** Copy of transcript.

Marketing research methods, analysis and interpretation of data generated by research. Topics in survey methods and multivariate statistical analysis.

478. Advertising Management Project (1)

Two hours of activity.

Prerequisite: Concurrent registration in Marketing 472. **Proof of completion of prerequisite required:** Copy of transcript.

An advertising or sales promotion program development project; initial design, pretesting, assessment, and preliminary program element evaluation.

479. Strategic Marketing Management (4) I, II

Prerequisites: Marketing 371 and 470 with a minimum grade of (2.0) or an average of 2.0 in both courses. Completion of lower division courses required in the major or minor. **Proof of completion of prerequisites required:** Copy of transcript.

Strategic planning, integration, management, and control of the marketing functions and mix; applying decision techniques for marketing problem solution.

496. Selected Topics in Marketing (1-4) I, II

Prerequisite: Consent of department chair.

Selected areas of concern in marketing. See Class Schedule for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

498. Investigation and Report (1-3) I, II

Prerequisites: Senior standing and consent of instructor.

A comprehensive and original study of a problem connected with marketing under the direction of one or more members of the marketing staff. May be repeated with new content. Maximum credit six units.

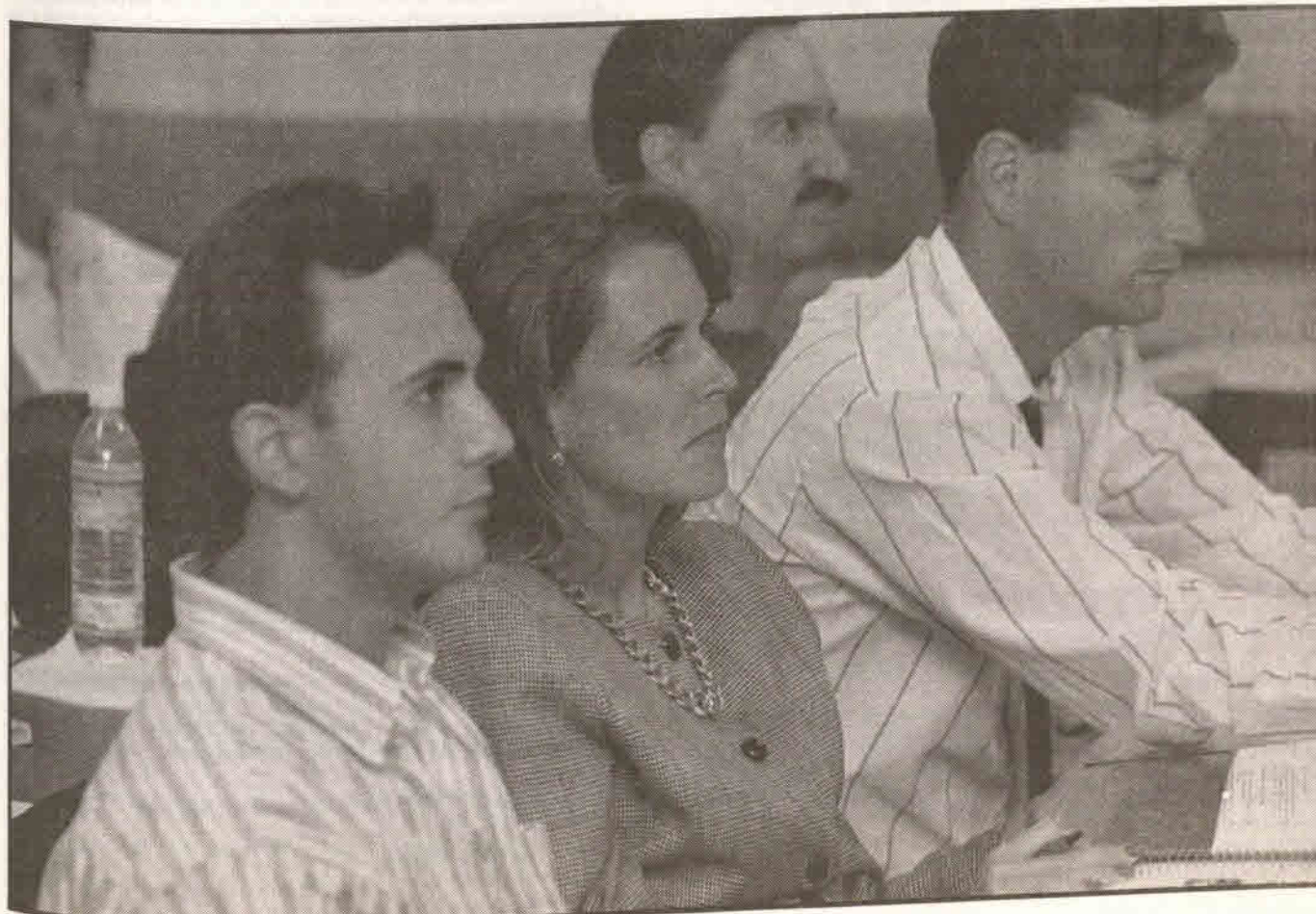
499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

GRADUATE COURSES

Refer to the Graduate Bulletin.



Mathematics

In the College of Sciences

OFFICE: Business Administration/Mathematics 203
TELEPHONE: (619) 594-6192

Faculty

Emeritus: Bell, Branstetter, Bryant, Deaton, Drobnies, Eagle, Eisemann, Fountain, Gindler, Harvey, Ho, Holmes, Marosz, Nower, Riggs, Romano, Smith, Van de Wetering, Warren, Willerding
Chair: Elwin

Professors: Anantha, Baase, Beck, Branca, Bray, Carlson, Carroll, Davis, Donald, Dunster, Elwin, Garrison, Geveci, Golbeck, Grone, Hager, Howard, Hui, Lesley, Lui, Lutz, Mahaffy, Marovac, McLeod, Moser, Park, Pierce, Ross, Salamon, Saltz, Short, Sowder, J., Sowder, L., Swiniarski, Thompson, A., Thompson, P., Villone, Vuskovic

Associate Professors: Burdick, Castillo, Eckberg, Hintzman, Kirschvink, Lopez, Macky, Marcus, Springer, Steffey, Stewart, Vinge, Whitman, Whitney

Offered by the Department of Mathematical Sciences

- Master of Arts degree in mathematics.
- Master of Science degree in applied mathematics.
- Master of Science degree in statistics.
- Master of Arts for teaching service with a concentration in mathematics.
- Major in mathematics with the B.A. degree in liberal arts and sciences.
- Major in mathematics with the B.S. degree in applied arts and sciences.
- Emphasis in applied mathematics.
- Emphasis in computer science.
- Major in statistics with the B.S. degree in applied arts and sciences.
- Teaching major in mathematics for the single subject teaching credential.
- Minor in mathematics.
- Certificate in introductory mathematics.
- Certificate in single subject mathematics.

The Majors

Mathematics is the language and instrument for the sciences and technology. It is concerned with a wide range of diverse problems from developing techniques to model real world applications, to designing efficient methods for calculating solutions of those problems, to creating new branches of mathematics and theories for as yet unsolved problems. Some students find mathematics stimulating because of its many and varied applications, while others are fascinated and attracted to it for the beauty of its intrinsic order, structure, and form.

Because of its broad scope, degrees in mathematics can prepare students for many different careers and the Department of Mathematical Sciences offers a variety of such degrees and emphases to provide students with several blends and specialties according to their interests and goals.

Graduates with a mathematics major have many options for either careers in applications, for further study in graduate school, or for teaching. Mathematics majors are important because their training involves quantitative abilities and critical reasoning that many potential employers can utilize. With a minor in an area of applications, graduates are suited for further graduate study in many areas that heavily depend upon mathematical methods and techniques. Graduates with an interest in the more theoretical aspects of mathematics

are sought after in many diverse graduate programs from applied and pure mathematics to computer and computational sciences and statistics. Careers in teaching include positions in secondary schools, for which a teaching credential is additionally required, teaching in two year colleges, for which a master's degree is required, and teaching at the university level, which requires a doctorate degree and involves research and creation of new mathematics.

Mathematics Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 17011)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in mathematics courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Mathematics 150 and 151; and 245, 252, 254. (19 units)

Recommended: Physics 195, 195L, 196, 196L, 197, 197L.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to the section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units, selected with approval of the departmental adviser before starting upper division work, including Mathematics 337, 521A, 524, 534A, and one two-semester sequence chosen from the following: Mathematics 521A-521B, 521A and Computer Science 562; Mathematics 537 and 531; 534A-534B; 534A and 535; 541 and 542; 550 and 553; 551A and 551B; Computer Science 310 and 320 or 520; and nine units of electives. The student must complete an outline for the major and file a copy signed by the adviser with the Office of Admissions and Records.

Mathematics Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 17031)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

The purpose of this major is to allow students with a strong interest in the mathematical aspects of a particular science to apply courses in that science to their major. This should provide a good background for employment or graduate work in applied mathematics or in that science.

Preparation for the Major. Mathematics 150 and 151; and 245, 252, 254, Computer Science 107. (22 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Mathematics 337, 524, 534A, 534B; at least six units selected from Mathematics 336, 362, 521A, 531, 532, 533, 537; twelve units from a science to which mathematics may be applied (these should be from a single science and must be approved by the B.S. adviser); and six units of electives in mathematics excluding Mathematics 302, 303, 309, 312, 313, 357, 414. Student must complete outline for major and file a copy signed by adviser with the Office of Admissions and Records.

Emphasis in Applied Mathematics (Major Code: 17031)

This emphasis is designed to train the student in those areas of mathematics which may be applied to formulate and solve problems in other disciplines. The program is designed to qualify the student for employment as an applied mathematician, but the graduate would also be well prepared for graduate study in pure or applied mathematics.

Preparation for the Major. Mathematics 150 and 151; and 245, 250, 252, 254, Computer Science 107, 108. (28 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Mathematics 337, 524, 532, 534A, 534B, 541, 350A or 551A; and twelve units selected from Mathematics 336, 362, 521A, 531, 533, 537, 542, 550, 350B or 551B, 561, 596 (approved by the Applied Mathematics adviser), Computer Science 310, 320, 520; and three units of electives excluding Mathematics 302, 303, 312, 313, 357, 414. Student must complete outline for major and file a copy signed by adviser with the Office of Admissions and Records.

Auxiliary Area. A minimum of 12 units from an area to which mathematics may be applied. A typical program might be Physics 195, 195L, 196, 196L, 197, 197L; or Chemistry 200, 201, and a course for which these are prerequisite; or Biology 201 and 202 and courses for which these are prerequisite; or Economics 101, 102, 307, 341. The intent is to train the student in an area in some depth. Some latitude may be allowed in the choice of department and mix of courses, but all programs must be approved by the Applied Mathematics adviser. The 12-unit requirement is minimal, and a minor in an approved field is highly recommended.

Emphasis in Computer Science (Major Code: 17031)

Preparation for the Major. Mathematics 150 and 151; and 245, 252, 254, Computer Science 107, 108, 237. (28 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units in mathematics to include Mathematics 337, 524, 534A, Computer Science 310, and 320 or 520; at least three units from Mathematics 336, 362, 521A, 531, 532, 533, 534B, 537, 561; at least six units from Mathematics 541, 542, Computer Science 524, 530, 560, 562, 564; and twelve units of electives excluding Mathematics 302, 303, 309, 312, 313, 357, 414. Student must complete outline for major and file a copy signed by adviser with the Office of Admissions and Records.

Mathematics Major

For the Single Subject Teaching Credential
With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 17011)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education. For students completing the single subject teaching credential program, no more than 48 units in mathematics courses can apply to the degree.

This major may be used by students in teacher education as an undergraduate major for the B.A. degree in liberal arts and sciences.

Preparation for the Major. Mathematics 150 and 151; and 245, 252, 254, Computer Science 107. (22 units)

Recommended: Physics 195, 195L, 196, 196L, 197, 197L. (12 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to the section of the catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units in mathematics to include Mathematics 302, 357, 414, 521A, 534A; an upper division course in geometry; and six units of electives in mathematics approved by the credential adviser. Student must complete outline for major and file a copy signed by adviser with the Office of Admissions and Records.

Single Subject Waiver Program in Mathematics

This program is subject to approval of the Commission on Teacher Credentialing.

Students who do not wish to complete a major in mathematics but want to satisfy the requirements for the single subject waiver program in mathematics must complete the following requirements.

To be admitted to the program, students must demonstrate competency in high school mathematics (algebra through trigonometry) by passing a mathematics placement test.

Waiver Program. A minimum of 45-46 units to include Mathematics 150 and 151; and 245, 252, 254, 302, 357, 414, 510, 521A; Computer Science 107; and nine units of electives selected with the approval of the adviser from physical and mathematical sciences. Students may substitute equivalent courses taken at this or other universities only with the approval of the single subject credential adviser. An approved calculus sequence of 12 units may be substituted for the 13-unit calculus sequence (Mathematics 150, 151, 252), thus reducing the total unit requirement from 46 to 45.

Statistics Major

With the B.S. Degree in Applied Arts and Sciences

The Statistics Major has been approved by the campus and is pending systemwide approval. Contact department for further information.

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

One purpose of this major is to allow students with a strong interest in statistical or biostatistical aspects of a particular science to apply courses in that science to their major. This should provide a good background for employment or graduate work in statistics, biostatistics, or in that science.

Upon entry to the program, the student will be assigned to an undergraduate adviser in statistics. Thereafter, the student will meet with the adviser each semester and discuss his or her academic program. A program of study must be approved by the undergraduate adviser in statistics.

In addition to meeting the requirements for undergraduate standing and the basic requirements for the bachelor of science degree as

described in this catalog, the student must complete an upper division writing requirement and must complete a minimum of 58 or 61 units of coursework as described below.

Preparation for the Major. Mathematics 150 and 151; 119, 245, 250, 252, 254, Computer Science 106 and 107. (25 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Mathematics 350A, 350B, 524, 551A, 551B; nine units selected (with the approval of the undergraduate adviser in statistics) from Mathematics 550, 553, 554A, 554B, 555; 12 upper division units selected from a science in which statistics may be applied (these should be from a single science and must be approved by the B.S. adviser) or 12 units selected (with the approval of the undergraduate adviser in statistics) from Mathematics 336, 337, 362, 521A, 531, 532, 533, 534A, 534B, 537, and 541.

Mathematics Minor

The minor in mathematics consists of a minimum of 20-22 units in mathematics to include 12 upper division units, at least six of which have as prerequisite Mathematics 151; or Mathematics 252 and nine upper division units in mathematics, at least six of which have as prerequisite Mathematics 151. The courses selected will be subject to the approval of the minor adviser.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Introductory Mathematics Certificate

The purpose of the Introductory Mathematics Certificate program is to provide individuals with appropriate mathematics coursework to qualify them to receive a supplementary authorization in introductory mathematics from the Commission on Teacher Credentialing. Admission is open to individuals who are majoring or have majored in an area other than mathematics and who have the equivalent of two years of high school mathematics and satisfy the Entry-Level Mathematics Examination. In order to enroll in the program, individuals should contact the supplementary mathematics credential adviser in the Department of Mathematical Sciences.

The program consists of 18-20 units to include Mathematics 140, 150, 302, 312 (with departmental credential adviser permission), 313, 357.

Individuals must complete at least six units at San Diego State University and have a cumulative grade point average of 2.5 in the required courses to qualify for the certificate.

With the approval of the department, a student may apply no more than three units of coursework from the certificate program toward a major. Courses in the certificate may not be counted toward the minor.

Single Subject Mathematics Certificate

The purpose of the Single Subject Mathematics Certificate program is to provide individuals with appropriate mathematics coursework to qualify them to receive a credential in single subject mathematics. Admission is open to individuals who are majoring or have majored in an area other than mathematics and who have the equivalent of two years of high school mathematics and satisfy the Entry-Level Mathematics Examination. In order to enroll in the program, individuals should contact the single subject mathematics credential adviser in the Department of Mathematical Sciences.

The program consists of 46 units to include Computer Science 107, Mathematics 150 and 151; and 245, 252, 254, 302, 357, 414, 510, 521A, and nine units of electives selected from mathematical or physical sciences.

Individuals must complete at least nine upper division units at San Diego State University and have a cumulative grade point average of 2.5 in the required courses to qualify for the certificate.

Mathematics Departmental Placement Examination

All students who expect to enroll in Computer Science 106, 107, 108, Mathematics 104, 118, 119, 120, 121, 140, 150, 210, 211, and 250 must satisfy the Entry-Level Mathematics Examination requirement and pass the required part of the Mathematics Departmental Placement Examination. For Mathematics 150, certain prerequisite courses taken at San Diego State University may be used to satisfy the Mathematics Departmental Placement Examination requirement.

Computer Science

(See this section of catalog under Computer Science.)

Courses

(Intermediate algebra is prerequisite to all mathematics courses.)

LOWER DIVISION COURSES

104. Trigonometry (2) I, II (CAN MATH 8)

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA. **Proof of completion of prerequisites required:** Copy of ELM score or verification of exemption; copy of Placement Examination score or copy of transcript.

Basic concepts of analytic trigonometry.

118. Topics in Mathematics (3) (CAN MATH 2)

Prerequisites: Satisfaction of Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA. **Proof of completion of prerequisites required:** Copy of ELM score or verification of exemption; copy of Placement Examination score or copy of transcript.

Topics selected from algebra, analysis, geometry, logic, probability, or statistics, designed to give student insight into structure of mathematical theories and their applications. Not open to students with credit in Mathematics 140 or higher numbered courses.

119. Elementary Statistics for Business (3) I, II, S

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA. **Proof of completion of prerequisites required:** Copy of ELM score or verification of exemption; copy of Placement Examination score or copy of transcript.

Measures of central tendency/variability, frequency distributions. Probability; Bayes theorem; probability distributions including binomial, hypergeometric, normal sampling and distributions. Significance testing. Regression and correlation. Not open to students with credit in Mathematics 250. Students with credit or concurrent registration in the following lower division statistics courses other than Mathematics 250 will be awarded a total of four units for the two (or more) courses: Biology 215, Economics 201, Engineering 140, Mathematics 119, Political Science 201, Psychology 270, and Sociology 201.

120. Calculus for Business Analysis (3) I, II, S (CAN MATH 34)

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA. **Proof of completion of prerequisites required:** Copy of ELM score or verification of exemption; copy of Placement Examination score or copy of transcript.

Matrix algebra. Calculus including differentiation and integration. Graphing and optimization. Exponential and logarithmic functions. Multivariable calculus.

121. Calculus for the Life Sciences I (3) I, II (CAN MATH 30)

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA. **Proof of completion of prerequisites required:** Copy of ELM score or verification of exemption; copy of Placement Examination score or copy of transcript.

Basic concepts of differential calculus with life science applications. Not intended for physical science or engineering majors. Not open to students with credit in Mathematics 150.

122. Calculus for the Life Sciences II (3) I, II (CAN MATH 32)

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement; qualification on the Mathematics Departmental Placement Examination, Part IA; and Mathematics 121. **Proof of completion of prerequisites required:** Copy of ELM score or verification of exemption; copy of Placement Examination score or copy of transcript.

A continuation of Mathematics 121 with topics from integral calculus and an introduction to elementary differential equations. Not open to students with credit in Mathematics 150.

140. College Algebra (3) I, II, S

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA. **Proof of completion of prerequisites required:** Copy of ELM score or verification of exemption; copy of Placement Examination score or copy of transcript.

Functional notation, mathematical induction, complex numbers, DeMoivre's theorem, inequalities, binomial theorem, determinants, etc. Not open to students with credit in Mathematics 150.

150. Single Variable Calculus (5) I, II, S (CAN MATH 18)

Prerequisites: Knowledge of algebra, geometry, and trigonometry as demonstrated by either (1) satisfactory completion of Mathematics 104 and 140 at SDSU with grades of C or better; or (2) satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part P for Mathematics 140 and Part III for Mathematics 104. Appropriate combinations of (1) and (2) are also acceptable. **Proof of completion of prerequisites required:** Copy of ELM score or verification of exemption; copy of Placement Examination score or copy of transcript.

Concepts and techniques of one variable calculus. Differentiation and integration of algebraic, logarithmic, exponential, trigonometric and inverse trigonometric functions of one variable, with applications.

151. Calculus and Analytic Geometry (4) I, II, S (CAN MATH 20)

Prerequisite: Mathematics 150 with minimum grade of C. Plane analytic geometry, polar coordinates, parametric equations in the plane, techniques of integration, indeterminate forms, improper integrals, Taylor's formula and infinite series.

210. Structure and Concepts of Elementary Mathematics I (3) I, II

This course or its equivalent is required for students working toward a multiple subject credential in elementary education.

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA. **Proof of completion of prerequisites required:** Copy of ELM score or verification of exemption; copy of Placement Examination score or copy of transcript.

Number sense and operation concepts; estimation, mental arithmetic, and algorithms; geometric concepts; linear measurements; problem solving strategies.

211. Structure and Concepts of Elementary Mathematics II (3) I, II

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA; and Mathematics 210. **Proof of completion of prerequisites required:** Copy of ELM score or verification of exemption; copy of Placement Examination score or copy of transcript.

Patterns and functions; rational and real numbers; proportional reasoning; geometric relationships; continuation of measurement topics; problem solving strategies.

245. Discrete Mathematics (3) I, II, S

Prerequisite: Mathematics 122 or 151.

Logic, methods of proof, set theory, number theory, equivalence and order relations, counting (combinations and permutations), solving recurrence relations.

250. Basic Statistical Methods (3) I, II

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA. **Proof of completion of prerequisites required:** Copy of ELM score or verification of exemption; copy of Placement Examination score or copy of transcript.

Descriptive statistics: histogram, measures of central tendency and variability; sampling distributions. Estimation and hypothesis tests for means, proportions, variances, AOV models, linear regression and correlation, nonparametric methods. Not open to students with credit in Mathematics 119. Students with credit or concurrent registration in the following lower division statistics courses other than Mathematics 119 will be awarded a total of four units for the two (or more) courses: Biology 215, Economics 201, Engineering 140, Mathematics 250, Political Science 201, Psychology 270, and Sociology 201.

252. Multivariate Calculus (4) I, II, S (CAN MATH 22)

Prerequisite: Mathematics 151 with minimum grade of C. **Proof of completion of prerequisite required:** Copy of transcript.

Concepts and techniques of several variable calculus. Partial differentiation and multiple integration with applications. Analytic geometry and vectors in three dimensions. Line integrals and Green's theorem, differential equations.

254. Introduction to Linear Algebra (3) I, II, S

Prerequisite: Mathematics 151.

Matrix algebra, Gaussian elimination, determinants, vector spaces, linear transformations, orthogonality, eigenvalues, and eigenvectors.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

299. Special Study (1-3)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Intended for Undergraduates)

NOTE: Proof of completion of prerequisites required for all upper division courses: Copy of transcript.

302. Basic Mathematical Concepts (3) I, II

Prerequisite: Mathematics 150.

Concepts of secondary school mathematics from teacher's point of view to include mappings, relations, and operations topics from mathematical systems and number theory.

303. History of Mathematics (3) I, II

Prerequisites: Mathematics 104 and 140, or students using course to satisfy General Education must complete the General Education requirement in Foundations IIA., Natural Sciences and Quantitative Reasoning.

Major currents in the development of mathematics from ancient Egypt and Babylon to late nineteenth century Europe.

309. LOGO in Elementary Mathematics (3) I, II

Two lectures and three hours of laboratory.

Prerequisites: Mathematics 211 and qualification on Mathematics Departmental Placement Examination, Part IA.

Programming in LOGO: graphics, recursion, list processing. Investigation of arithmetic and geometric techniques in elementary mathematics. May not be used as part of the major or minor in the Department of Mathematical Sciences.

312. Modern Elementary Mathematics I (3) I, II

Prerequisites: Mathematics 211 and qualification on Mathematics Departmental Placement Examination, Part IA.

Topics in mathematics, selected from algebra, geometry, number theory, probability, statistics, logic, and mathematical systems; problem solving. Enrollment limited to future teachers in grades K-8.

313. Modern Elementary Mathematics II (3)

Prerequisite: Mathematics 312.

Continuation of Mathematics 312. Enrollment limited to future teachers in grades K-8.

336. Introduction to Mathematical Modeling (3) I

Prerequisite: Mathematics 254.

Models from the physical, natural, and social sciences including population models and arms race models. Emphasis on classes of models such as equilibrium models and compartment models.

337. Elementary Differential Equations (3) I, II

Prerequisite: Mathematics 151.

Integration of first-order differential equations, initial and boundary value problems for second-order equations, series solutions and transform methods, regular singularities.

342A. Methods of Applied Mathematics I (3) I, II

Prerequisite: Mathematics 252.

Vector analysis, divergence and Stokes' theorem and related integral theorems. Matrix analysis, eigenvalues and eigenvectors, diagonalization. Introduction to ordinary differential equations. Computer software packages for matrix applications, solving, and graphing differential equations.

342B. Methods of Applied Mathematics II (3) I, II

Prerequisite: Mathematics 342A.

Second order ordinary differential equations, power series methods, Bessel functions, Legendre polynomials. Linear partial differential equations, separation of variables, Fourier series, Sturm-Liouville theory, orthogonal expansions, Fourier Transforms. Use of computer software packages for symbolic algebra and solution of differential equations.

350A. Statistical Methods (3) I

Prerequisite: Mathematics 119 or 250 or Biology 215.

One- and two-sample hypothesis tests, paired difference tests, tests for variances, analysis of variance. Linear regression and correlation. Chi-square tests. Simple nonparametric tests. The power of hypothesis tests.

350B. Statistical Methods (3) II

Prerequisite: Mathematics 350A.

Multiple regression, factorial models and nonparametric methods, all with emphasis on applications.

357. Probability and Statistics (3) I, II

Prerequisite: Mathematics 150.

Probability, measures of central tendency and dispersion, characteristics of frequency functions of discrete and continuous variates; applications. Highly recommended for all prospective secondary school teachers of mathematics.

362. Optimization Theory (3) II

Prerequisite: Mathematics 254.

Necessary and sufficient conditions for optimizations in one and several variables. Euler's equation. Lagrange multipliers, linear programming, the simplex method. Introduction to duality and linear programming.

414. Mathematics Curriculum and Instruction (3)

Prerequisites: Senior standing and 12 upper division units in mathematics.

Historical development of mathematics and mathematics curriculum. Principles and procedures of mathematics instruction in secondary schools. For secondary and postsecondary teachers and teacher candidates. Course cannot be used as part of the major or minor in mathematical sciences with exception of major for the single subject teaching credential.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

NOTE: Proof of completion of prerequisites required for all upper division courses: Copy of transcript.

509. Computers in Teaching Mathematics (3)

Two lectures and three hours of laboratory.

Prerequisite: Mathematics 252.

Solving mathematical tasks using an appropriate computer interface, and problem-based curricula. Intended for those interested in mathematics teaching.

510. Introduction to the Foundations of Geometry (3) I, II

Prerequisite: Mathematics 122 or 151.

The foundations of Euclidean and hyperbolic geometries. Highly recommended for all prospective teachers of high school geometry.

511. Projective Geometry (3)

Prerequisite: Mathematics 254.

Concurrence of lines, collinearity of points and other properties of figures not altered by projections; homogenous coordinates and analytic properties of projective transformations.

512. Non-Euclidean Geometry (3)

Prerequisite: Mathematics 122 or 151.

History of attempts to prove the fifth postulate; emphasis on plane synthetic hyperbolic geometry; brief treatment of other types of non-Euclidean geometry.

521A. Abstract Algebra (3) I, II

Prerequisites: Mathematics 245 and 252.

Abstract algebra, including elementary number theory, groups, and rings.

521B. Abstract Algebra (3) II

Prerequisite: Mathematics 521A.

Continuation of Mathematics 521A. Rings, ideals, quotient rings, unique factorization, noncommutative rings, fields, quotient fields, and algebraic extensions.

522. Number Theory (3) I

Prerequisites: Mathematics 245 and 252.

Theory of numbers to include congruences, Diophantine equations, and a study of prime numbers.

523. Mathematical Logic (3)

Prerequisite: Mathematics 245.

Propositional logic and predicate calculus. Rules of proof and models. Completeness and the undecidability of arithmetic. Not open to students with credit in Philosophy 521.

524. Linear Algebra (3) I, II

Prerequisites: Mathematics 245 and 254; or 342A.

Vector spaces, linear transformations, orthogonality, eigenvalues and eigenvectors, normal forms for complex matrices, positive definite matrices and congruence.

531. Partial Differential Equations (3) I

Prerequisites: Mathematics 252 and 337.

Boundary value problems for heat and wave equations; eigenfunction expansions, Sturm-Liouville theory and Fourier series. D'Alembert's solution to wave equation; characteristics. Laplace's equation; maximum principles; Bessel functions. Not open to students with credit in Mathematics 340B.

532. Functions of a Complex Variable (3)

Prerequisite: Mathematics 252.

Analytic functions, Cauchy-Riemann equations, theorem of Cauchy, Laurent series, calculus of residues.

533. Vector Calculus (3)

Prerequisite: Mathematics 254 or 342A.

Scalar and vector fields; gradient, divergence, curl, line and surface integrals: Green's, Stokes' and divergence theorems. Green's identities. Applications to potential theory or fluid mechanics or electromagnetism.

534A. Advanced Calculus I (3) I, II, S

Prerequisites: Mathematics 245 and 254; or 342A.

Completeness of the real numbers and its consequences, sequences and series of real numbers, continuity, differentiability and integrability of functions of one real variable.

534B. Advanced Calculus II (3) I, II

Prerequisite: Mathematics 534A.

Series and sequences of functions and their applications, functions of several variables and their continuity, differentiability and integrability properties.

535. Introduction to Topology (3)

Prerequisite: Mathematics 534A.

Topological spaces. Functions, mappings, and homeomorphisms. Connectivity, compactness. Metric spaces.

537. Ordinary Differential Equations (3)

Prerequisite: Mathematics 337.

Theory of ordinary differential equations: elementary existence and uniqueness, dependence on initial conditions and parameters, linear systems; stability and asymptotic behavior, plane autonomous systems, series solutions at regular singular points. Not open to students with credit in Mathematics 530.

541. Introduction to Numerical Analysis and Computing (3) I, II, S

Prerequisites: Mathematics 254 or 342A; and Computer Science 106 or 107 or Engineering 120.

Solution of equations of one variable, direct methods in numerical linear algebra, least squares approximation, interpolation and uniform approximation, quadrature.

542. Introduction to Numerical Solutions of Differential Equations (3) II

Prerequisites: Mathematics 337 and 541.

Initial and boundary value problems for ordinary differential equations. Partial differential equations. Iterative methods, finite difference methods, and the method of lines.

543. Numerical Matrix Analysis (3)

Prerequisite: Mathematics 541.

Gaussian elimination, LU factorizations and pivoting strategies. Direct and iterative methods for linear systems. Iterative methods for diagonalization and eigensystem computation. Tridiagonal, Hessenberg, and Householder matrices. The QR algorithm.

550. Probability (3) I, II, S

Prerequisite: Mathematics 151.

Computation of probability by enumeration of cases, discrete and continuous random variables, density functions, moments, limit theorems, selected distributions. Markov chains, random walks, selected topics.

551A. Mathematical Statistics (3) I, II

Prerequisite: Mathematics 252.

Probability models in the theory of statistics, sampling distributions with applications in statistical inference.

551B. Mathematical Statistics (3) II

Prerequisite: Mathematics 551A.

Point and interval estimation and hypothesis testing in statistical models with applications to problems in various fields.

553. Stochastic Processes (3) II

Prerequisite: Mathematics 550 or 551A.

Introduction to stochastic processes with selected applications.

554A. Computer Oriented Statistical Analysis (3) I

Prerequisite: Mathematics 350A.

Using statistical computer packages such as BMDP and SAS to analyze problems in univariate ANOVA, multiple regression, contingency tables, nonparametric methods and discriminant analysis.

554B. Advanced Computer Oriented Statistical Analysis (3) II

Prerequisite: Mathematics 554A.

Analyze problems in multivariate ANOVA, factor analysis, repeated measures, logistic regression, loglinear models, cluster analysis. Using statistical computer packages.

555. Multivariate Statistical Methods in Biology (3)

(Same course as Biology 597B.)

Two lectures and three hours of laboratory.

Prerequisite: Mathematics 350A.

Application of multivariate statistical methods in the biological sciences.

561. Applied Graph Theory (3)

Prerequisite: Mathematics 245 or 254.

Undirected and directed graphs, trees, Hamiltonian circuits, classical problems of graph theory including applications to linear systems.

579. Combinatorics (3)

Prerequisite: Mathematics 245.

Permutations, combinations, generating functions, recurrence relations, inclusion-exclusion counting. Polya's theory of counting, other topics and applications.

596. Advanced Topics in Mathematics (1-4) I, II

Prerequisite: Consent of instructor.

Selected topics in classical and modern mathematical sciences. May be repeated with the approval of the instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES Refer to Graduate Bulletin.

Mechanical Engineering

In the College of Engineering

OFFICE: Engineering 323M
TELEPHONE: (619) 594-6067

The undergraduate degree in Mechanical Engineering is accredited by the Accreditation Board for Engineering and Technology, Inc.

Faculty

Emeritus: Bauer, Bedore, Bilberman, Fitz, Hoyt, Lybarger, Mansfield, Morgan, Rao, Stone

Chair: Pinto

Professors: Craig, Güven, Hussain, Murphy, Ohnysty, Pinto

Associate Professors: Bailey, Bhattacharjee, Lowrey, Thompson

Assistant Professors: Burns, Liang

Offered by the Department

Doctor of Philosophy degree in applied mechanics.

Master of Science degree in mechanical engineering.

Major in mechanical engineering with the B.S. degree.

Transfer Credit

No credit will be given for upper division engineering coursework taken at an institution having an engineering program which has not been accredited by the Accreditation Board for Engineering and Technology, Inc., unless the student successfully completes the first 12 units of engineering work attempted at this university. At that time, and upon recommendation of the department, credit will be given for the unaccredited work.

General Education

Students will complete a minimum of 50 units in General Education, to include a minimum of nine upper division units taken after attaining junior class standing. At least three of the nine upper division units must be taken from Explorations; the remaining six units may be taken from Explorations or from specifically approved upper division course substitutions for Foundations areas B and C (Social and Behavioral Sciences and Humanities). No more than twelve units may be used for General Education credit from any one department or academic unit.

I. Communication and Critical Thinking: 9 units

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)

II. Foundations: 29 units

A. Natural Sciences and Quantitative Reasoning (17 units):

1. Physical Sciences (11 units)
Engineering students will take Chemistry 200 which includes a laboratory (5 units).
Physics 195 (3 units)
Physics 196 (3 units)
2. Life Sciences (3 units)
3. Laboratory (satisfied under A.1. above)
4. Mathematics/Quantitative Reasoning
Engineering students will take Mathematics 150 (3 units) applicable to General Education.

B. Social and Behavioral Sciences (3 units)

C. Humanities (9 units)

Complete three courses in three different areas. One of these courses and the one under IV.A. below must be taken in the same department.

III. American Institutions: Three units of the six units of coursework which meet the American Institutions graduation requirement may be used in General Education, excluding courses numbered 500 and above.

IV. Explorations: Total: 9 units; must include one course of cultural diversity.

A. Upper division Humanities (3 units)

This course must be taken from the same department as one of the Humanities courses selected in Foundations.

B. Upper division Humanities (3 units from an area in Humanities not selected in Foundations)

C. Upper division Social and Behavioral Sciences (3 units)

The Major

Mechanical engineers invent solutions to material problems, questioning how machines work, making them work better, and creating ideas for solving problems in new and different ways. A newer focus for mechanical engineers is in the area of biomedical engineering, which is the application of quantitative engineering methods to the understanding and solution of biological and physiological problems. Another focus is the design of manufacturing systems. This involves improving quality and speed of manufacture through implementation of computer technology via robots and other automation equipment. Thus, Computer Aided Design (CAD), Computer Aided Manufacturing (CAM), and Computer Integrated Manufacturing (CIM) are all newer aspects of mechanical engineering education.

Jobs in mechanical engineering include developing products to improve air and water quality, inventing more efficient energy sources, designing farm equipment to improve crop yield throughout the world, and developing systems for biological research as well as life-saving medical equipment. A mechanical engineer, now more than ever, is someone who can translate scientific theories into the real products and processes to improve the quality of life.

A number of factors indicate that employment opportunities for mechanical engineering graduates will increase. Engineers now comprise nearly 40 percent of the top management of U.S. industrial firms. As in other fields, engineering job openings for women are increasing dramatically.

The future depends on solving the worldwide problems of energy shortages, environmental pollution, world health, and inadequate food production. Mechanical engineers are heavily involved in finding those solutions.

Mechanical Engineering Major

With the B.S. Degree (Major Code: 09101)

NOTE: See following page for recommended sequence of courses for the major in mechanical engineering.

All students in mechanical engineering pursue a common program of basic sciences, engineering, and mechanical engineering fundamentals. In addition, students are provided with the opportunity to select a pattern of study to satisfy their areas of interest. This pattern of study is indicated in the sequence below as "professional electives" and may be selected from available courses in controls, energy conversion, gas dynamics, heat transfer, machine design, materials, thermodynamics, vibrations, and other areas. *The students' choice of elective courses must be made in consultation with their adviser and documented by the filing of an approved master plan during the second semester of their freshman year.*

All mechanical engineering students are required to file a master plan. The purpose of the plan is to facilitate proper academic advice.

FRESHMAN YEAR

Fall Semester	Units	Spring Semester	Units
Chem. 200, General Chemistry	5	Math. 151, Calc. and Anal. Geom.	4
Engr. 120, Engr. Problem Analysis	2	ME 195, Graphics and Processes	3
Math. 150, Single Variable Calculus	5	Phys. 195, Principles of Physics	3
General Education	6	General Education	6
	18		16

SOPHOMORE YEAR

Fall Semester	Units	Spring Semester	Units
Math. 252, Multivariate Calculus	4	Phys. 197, Principles of Physics	3
EM 200, Statics	3	EE 203, Principles of Elect. Engr.	3
ME 260, Engineering Materials	3	EM 220, Dynamics	3
Phys. 196, Principles of Physics	3	Engr. 280, Methods of Analysis	3
General Education	6	ME 275, Elem. of Therm. & Mech. Sys. ..	3
	19	General Education	3
			18

JUNIOR YEAR

Fall Semester	Units	Spring Semester	Units
CE 301, Intro. to Solid Mechanics	3	EE 303, Electronics, Instrum., and Electrical Energy Conversion	3
ME 310, Engr. Design: Introduction	3	EM 340, Fluid Mechanics	3
ME 340, Metallic Materials	3	ME 314, Engr. Design: Mech. Comp. ..	3
ME 350, Thermodynamics	3	ME 395, Engr. Sys. Lab. Applic.	2
ME 390, Engr. Systems Lab. Intro.	2	ME 450, Engr. Thermodynamics	3
General Education	3	General Education	3
	17		17

SENIOR YEAR

Fall Semester	Units	Spring Semester	Units
ME 470, Principles of Heat Transfer	3	ME 490B, Engr. Design: Project	2
ME 490A, Engr. Design: Project	2	ME 510, Adv. Machine Design	3
ME 512, Simulation of Engr. Sys.	3	#Professional Electives	6
#Professional Electives	3	General Education	3
General Education	3	American Institutions	3
American Institutions	3		
	17		17

Approved as part of the student's master plan.

The plan is to be filed after consultation with a faculty member of the department. Once filed, the plan must be reviewed each semester with the assigned adviser before advanced registration. Filing the master plan will normally occur in Mechanical Engineering 195. Transfer students must comply with this requirement prior to enrollment in ME 310.

Students must complete all upper division courses in the major within seven years prior to graduation. Students who will have completed any of those courses more than seven years before the projected date of graduation must contact the department chair for information about ways to certify knowledge of current course content.

Upper Division Writing Requirement. Passing the departmental screening examination, a part of Mechanical Engineering 310, or passing the University Writing Examination or Rhetoric and Writing 503W with a grade of C (2.0) or better.

Courses

LOWER DIVISION COURSES

190. Engineering Drawing (2) I, II (CAN ENGR 2)

Six hours of laboratory.
Development of drawing skills and techniques for engineers. Elementary orthographic and pictorial drawing, sections, dimensioning. Instrument and freehand drawing. Drawing as an aid to visualization and design.

195. Engineering Design: Graphics and Processes (3) I, II

One lecture and six hours of laboratory.
Prerequisite: One year of high school drafting or Mechanical Engineering 190. **Proof of completion of prerequisite required:** High school grade records or copy of transcript.

Graphic communication for engineers. Presentation and interpretation of engineering drawings using instruments and freehand sketches. Manufacturing processes and their influence on design decisions.

260. Engineering Materials (3) I, II (CAN ENGR 4)

Prerequisites: Chemistry 200 and credit or concurrent registration in Engineering Mechanics 200. **Proof of completion of prerequisites required:** Copy of transcript or evidence of concurrent registration in Engineering Mechanics 200.

Atomic and molecular structure of materials utilized in engineering. Analysis of the relationships between structure of materials and their mechanical, thermal, electrical, corrosion and radiation properties, together with examples of specific application to engineering problems.

275. Elements of Thermal and Mechanical Systems (3)

Prerequisites: Chemistry 200, Engineering 120, Mathematics 151 (with minimum grade of C), and Physics 195. **Proof of completion of prerequisites required:** Copy of transcript.

Fundamental principles in thermal science and mechanical design; concepts of engineering systems and subsystems; problem-solving techniques.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

**UPPER DIVISION COURSES
(Intended for Undergraduates)**

NOTE: Proof of completion of prerequisites required for all Mechanical Engineering 300-, 400-, and 500-level courses: Copy of transcript. In addition, Mechanical Engineering 390, 450, 490A, and 530 require evidence of concurrent registration in appropriate courses.

310. Engineering Design: Introduction (3) I, II

Two lectures and three hours of guided design activities.
Prerequisites: Mechanical Engineering majors—Rhetoric and Writing 200 or Linguistics 200 with a grade of C or better, Engineering 120, Mechanical Engineering 195, 275, and Engineering Mechanics 220; non-Mechanical Engineering majors—Rhetoric and Writing 200 with a grade of C or better. To be eligible for the departmental upper division writing test in this class, students must have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. Every mechanical engineering student must have a master plan on file before enrolling in Mechanical Engineering 310.

Professional approach to engineering design problems. Problem definition, information gathering, feasibility studies, analysis, final design and communication. Several design studies are completed.

314. Engineering Design: Mechanical Components (3) I, II

Prerequisites: Mechanical Engineering 310 and Civil Engineering 301.

Application of mechanics, physical properties of materials, and solid mechanics to the design of machine elements. Student design projects.

340. Metallic Materials (3) I, II

Prerequisite: Mechanical Engineering 260.
Physical metallurgy and properties of metals. Influence of processing on the properties of metals. Design criteria for selection of materials.

350. Thermodynamics (3) I, II

Prerequisites: Mathematics 252 and Engineering Mechanics 200, both with a grade of C or better, and Mechanical Engineering 275.
Development of the basic laws of thermodynamics and their application to engineering systems.

352. Thermodynamics and Heat Transfer (3) I, II

Prerequisites: Mathematics 252 with a grade of C or better, and Engineering Mechanics 202 or 220.
First and second laws of thermodynamics; heat conduction, convection and radiation. Not acceptable for mechanical engineering majors.

390. Engineering Systems Laboratory: Introduction (2) I, II

One lecture and three hours of laboratory.
Prerequisites: Rhetoric and Writing 200 or Linguistics 200, Electrical Engineering 203, Engineering 280, all with a grade of C or better; and credit or concurrent registration in Civil Engineering 301.
Engineering experimentation. Instrumentation theory, data analysis, technical communication and experiment design. Principles of experimentation taught in lecture and applied in experiments selected from subdisciplines in mechanical engineering.

395. Engineering Systems Laboratory: Applications (2) I, II

One lecture and three hours of laboratory.
Prerequisites: Mechanical Engineering 350 and 390.
Advanced experiment design, data acquisition theory and data analysis. Experience in designing, conducting and reporting on experiments to acquire knowledge about engineering systems.

410. Creativity in Design (3)

Methods to stimulate creativity in design. Investigation of hidden blocks to creative thought. Emphasis on placing students in a design situation requiring an inventive or creative solution.

450. Engineering Thermodynamics (3) I, II

Prerequisites: Mechanical Engineering 350 and credit or concurrent registration in Engineering Mechanics 340.
Further development of the laws of classical thermodynamics. Applications to the analysis and design of energy conversion systems.

470. Principles of Heat Transfer (3) I, II

Prerequisites: Engineering 280 with a grade of C or better, Engineering Mechanics 340, and Mechanical Engineering 350.
Heat transfer by conduction, convection, radiation, and combinations thereof.

490A-490B. Engineering Design: Senior Project (2-2) I, II

Six hours of guided design activities.
Prerequisites for 490A: Mechanical Engineering 314, 395, and credit or concurrent registration in Mechanical Engineering 470, 512, and Electrical Engineering 303.
Prerequisites for 490B: Mechanical Engineering 450, 490A.
Applications of engineering principles and design techniques to the designing, building, and testing of an engineering system. A single project is completed in this two-course sequence and is judged completed upon presentation of an oral and a written report.

496. Advanced Mechanical Engineering Topics (1-3) I, II

Prerequisite: Consent of instructor. **Proof of completion of prerequisite required:** Copy of transcript.
Modern developments in mechanical engineering. See Class Schedule for specific content. Maximum credit six units for any combination of Mechanical Engineering 496, 499 and 596.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor. **Proof of completion of prerequisite required:** Copy of transcript.
Individual study. Maximum credit six units for any combination of Mechanical Engineering 496, 499 and 596.

**UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)**

NOTE: Proof of completion of prerequisites required for all Mechanical Engineering 300-, 400-, and 500-level courses: Copy of transcript. In addition, Mechanical Engineering 390, 450, 490A, and 530 require evidence of concurrent registration in appropriate courses.

510. Advanced Machine Design (3) I, II

Prerequisites: Mechanical Engineering 314 and 340.
Application of advanced topics in strength of materials to the design of mechanical elements. Energy methods, stress concentrations, curved beams, and thick-walled cylinders. Practical application of principles through case studies or design projects.

512. Simulation of Engineering Systems (3) I, II

Two lectures and three hours of laboratory.
Prerequisites: Mechanical Engineering 314 and 395.
Analysis and design of engineering systems using modern analog and digital computers. Simulation of dynamic systems. Application to problems in mechanics, heat transfer, thermodynamics, and control systems.

516. Engineering Design: Mechanisms (3)

Prerequisite: Mechanical Engineering 512.
Design of linkages, cams, and gears wherein displacement, velocity and acceleration are paramount considerations.

520. Introduction to Mechanical Vibrations (3)

Prerequisites: Mechanical Engineering 512 and Civil Engineering 301.
Analysis of mechanical vibration; single- and multi-degree of freedom systems; free and forced vibrations; vibration isolation; vibration absorbers. Theory of vibration measuring instruments.

530. Automatic Control Systems (3)

Prerequisites: Engineering 280 with a grade of C or better, and credit or concurrent registration in Mechanical Engineering 512.
Analysis of the dynamic characteristics of control components and systems. Stability and response of closed loop systems. Design of control systems.

540. Nonmetallic Materials (3)

Prerequisite: Mechanical Engineering 340.
Fundamentals of plastics, reinforced plastics, and ceramics. Analysis of effect of physical properties upon selection of a material for use in design.

542. Production Engineering (3)

Prerequisites: Mechanical Engineering 340 and Engineering 280 with a grade of C or better.
Quantitative techniques including regression analysis, linear programming, network and simulation methods as applied to planning, forecasting, scheduling and maintaining of modern production and manufacturing systems.

544. Advanced Manufacturing Processes (3)

Prerequisites: Mechanical Engineering 195, 314, 340, 350; and Engineering 280 with a grade of C or better.
Theory and techniques of metal cutting, forming; non-cutting metal removal, computer controlled machining.

546. Computer Aided Manufacturing (3)

Prerequisites: Mechanical Engineering 195, 340; Engineering 120 and 280, both with a grade of C or better.
Computer controlled manufacturing and assembly techniques and devices. Data bases and special languages.

570. Thermal Systems Analysis and Design (3)

Prerequisite: Mechanical Engineering 470.
Analysis, design, and optimization of thermal systems using microcomputers. Modeling of thermal systems and components. Thermal

system component characteristics and their effect on overall system performance. Relationship among thermal sciences in design process. Introduction to thermoeconomic optimization.

580. Elements of Energy Conversion (3)

Prerequisite: Mechanical Engineering 350.
Principles of physics and chemistry applied to the analysis of a broad spectrum of energy conversion devices from an engineering point of view.

582. Thermal Environmental Engineering (3)

Prerequisite: Mechanical Engineering 470.
Psychrometrics. Mass transfer. Two-phase flow. Heat transfer. Thermoelectric refrigeration. Change of phase.

586. Solar Energy Conversion (3)

Prerequisites: Engineering Mechanics 340, Mechanical Engineering 450 and 470.
Application of thermodynamics, fluid mechanics and heat transfer to the thermal design of solar energy conversion systems. Computer simulations utilized.

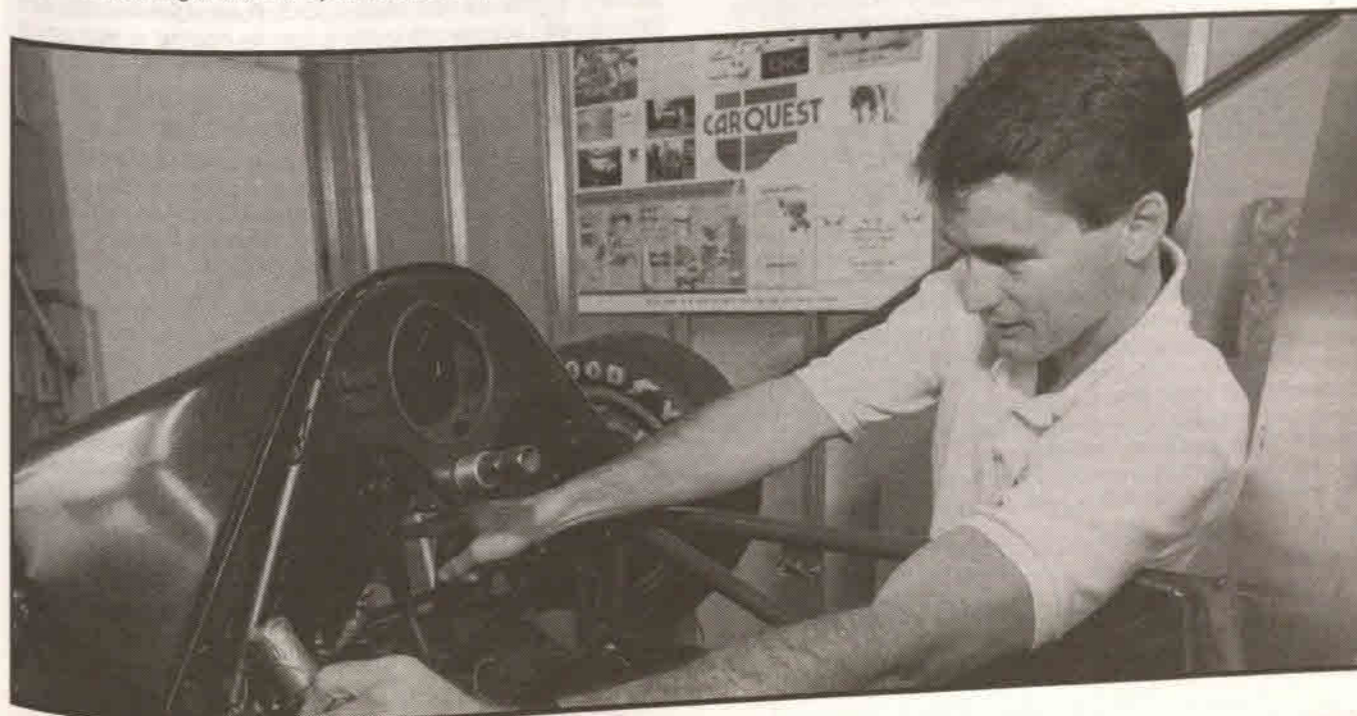
590. Biomechanics (3)

Prerequisites: Civil Engineering 301 and Engineering Mechanics 340.
Application of engineering methodologies for quantitative understanding of biological/physiological phenomena. Continuum mechanics principles. The cardiovascular system and its components viewed from a mechanistic standpoint.

596. Advanced Mechanical Engineering Topics (1-3) I, II

Prerequisite: Consent of instructor. **Proof of completion of prerequisite required:** Copy of transcript.
Modern developments in mechanical engineering. See Class Schedule for specific content. Maximum credit of six units for any combination of Mechanical Engineering 496, 499 and 596 applicable to a bachelor's degree. Maximum combined credit of six units of Mechanical Engineering 596 and 696 applicable to a 30-unit master's degree.

**GRADUATE COURSES
Refer to the Graduate Bulletin.**



Mexican American Studies

In the College of Arts and Letters

OFFICE: Adams Humanities 3160

TELEPHONE: (619) 594-6452

Faculty

Chair: Ortiz
Professors: Griswold del Castillo, Herzog, Rodriguez, Villarino
Associate Professor: Ortiz
Assistant Professor: Del Castillo

Offered by the Department

Major in Mexican American studies with the B.A. degree in liberal arts and sciences.
Minor in Mexican American studies.
Minor in United States-Mexican border studies.
Certificate in United States-Mexico border studies.

The Major

Recognized for its commitment to excellence in teaching, research and service, Mexican American studies provides timely, interdisciplinary education regarding the nation's fast-growing ethnic group, the Chicano/Latino, and the interplay of culture, politics, economics and society in the dynamic U.S.-Mexican border region. The Department of Mexican American Studies also endeavors to contribute to the development of knowledge about the Chicano/Latino populations and the border region through original scholarship on the part of its faculty and students. The department recognizes women and gender based issues as integral to a Chicano studies program. In 1993, the department inaugurated the Magdalena Mora Award to be awarded to the winner of the outstanding history essay in Mexicana/Chicana women at the undergraduate level.

Mexican American studies majors may choose one of two areas: **Humanities**, which includes courses designed to increase the student's awareness of the Chicano culture, as well as intellectual, aesthetic, literary, historical, ethical, and human values; and **Social Science**, including courses which analyze social institutions and how they affect the individual and also emphasize contemporary Mexican American issues as they relate to the larger society. Areas of study include political science, anthropology, economics, sociology, and history.

Bilingual/bicultural graduates are sought after more than ever before. A student with a major or minor in Mexican American studies has a good possibility of securing a position and advancing. Although employment opportunities in regular classroom teaching and other careers have remained fairly constant, the number of positions for bilingual/bicultural graduates has continued to increase.

Mexican American studies is also an excellent major as preparation for postgraduate study in various professional schools. For example, students can continue their studies for advanced degrees in law, with positions specializing in minority or barrio problems; social work, as a medical or psychiatric social worker in a minority community; public administration; librarianship; and business administration, with careers in accounting, marketing, bank management, and insurance.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Mexican American Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22131)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in Mexican American studies courses can apply to the degree.

A double major is strongly recommended for students majoring in Mexican American studies.

A minor is not required with this major.

Preparation for the Major. Mexican American Studies 100 and 110A. (6 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Students are encouraged to satisfy this language requirement in Spanish. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units to include Mexican American Studies 301 and 21 units selected from one area of specialization: (social sciences) Mexican American Studies 303, 306, 320, 324, 350A-350B, 355, 480, 498; or (humanities) Mexican American Studies 310, 314A, 314B, 324, 335, 357, 375, 376, 380, 396W, 464, 597; or (border studies) Mexican American Studies 306, 355, 375, 380, 498, Economics 565, History 551B, Political Science 568. Up to six units, with appropriate content, can be applied to each area of specialization from Mexican American Studies 496, 499, and 596.

Mexican American Studies Minor

The minor in Mexican American studies consists of a minimum of 18 units in Mexican American studies to include Mexican American Studies 100, 110A, and 12 units of upper division courses selected from one area of specialization: (social sciences) Mexican American Studies 301, 303, 306, 320, 324, 350A-350B, 355, 498; or (humanities) Mexican American Studies 310, 314A, 314B, 335, 357, 375, 376, 380, 396W, 464, 597; or (border studies) Mexican American Studies 306, 355, 375, 380, 498, Economics 565, History 551B, Political Science 568. Up to six units, with appropriate content, can be applied to each area of specialization from Mexican American Studies 496, 499, and 596.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

United States-Mexican Border Studies Minor

The minor in United States-Mexican Border Studies consists of a minimum of 22 units, 12 units of which must be in upper division courses to include Mexican American Studies 355, Spanish 201, and six units selected from Mexican American Studies 306, 310, 357, 375, 376, 380, 597.

The following additional nine units must be taken to complete the minor:

International Economic/Business: Three units selected from Economics 360, 365, 458, 565; Finance 329; Marketing 376.

Regional Geography/History and Politics/Society: Six units selected from Geography 323; History 538, 549, 551, 555; Political Science 481, 555, 568; Social Work 350; Sociology 335, 350, 351, 355, 555; Telecommunications and Film 590.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

United States-Mexico Border Studies Certificate

The United States-Mexico Border Studies Certificate program is an interdisciplinary program integrating border studies courses from academic units throughout the campus. The objective of the program is to train students from diverse academic backgrounds within a multidisciplinary border studies curriculum that provides direct experience in border institutions and policy issues in both the public and private sectors. The program requires 21 units and a level of Spanish proficiency, 3 on a scale of 5, as indicated on the Foreign Service Language Examination. Students must apply for admission to the program before the completion of nine certificate units and are required to plan their program with an adviser. Contact the Department of Mexican American Studies.

Required courses: Mexican American Studies 355 and three units of an internship, either Mexican American Studies 498 or an internship from the student's major if it is carried out as a border-oriented internship.

Fifteen units selected from the following areas, at least three units from each area. In addition to the courses listed and with the approval of the adviser, students may take border-related courses from other areas, but no more than six units can be from a single department. Courses in the certificate may not be counted toward the minor.

Evolution of Social and Environmental Regions: Mexican American Studies 375; Geography 496; History 551B.

Political and Economic Systems: Mexican American Studies 306; Economics 458, 496, 565; Political Science 568.

Cultural and Social Institutions: Mexican American Studies 376; Education 451.

Special Problems/Human Services: Mexican American Studies 496, Border Research Topics; Journalism 496, Latin America and the Media; Political Science 390, Dynamics of Modern International Crises.

Courses

LOWER DIVISION COURSES

100. The Mexican American Heritage (3)

Cultural achievements and thought of Spanish speaking peoples of North America; development of aesthetic and ethical values. North American intellectual history and influence of philosophical orientations of native and Mestizo peoples. Implications for social change.

110A-110B. Introduction to Mexican American Studies (3-3)

Introduction to the culture and the civilization of the Mexican American. Semester I: History; Mexican and US roots; the new identity. Semester II: Contemporary social conditions, public policy, and politics affecting Mexican Americans.

111A. Oral Communication (3)

Training in the process of oral (speech) expression: addressing the barrio; formal delivery.

Mexican American Studies 111A is equivalent to Speech Communication 103. Not open to students with credit in Africana Studies 140 or Speech Communication 103 or 204.

111B. Written Communication (3)

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements. (See Graduation Requirements section of catalog.) **Proof of completion of prerequisites required:** Copy of EPT or competency scores or verification of exemption; or proof of Cr in Rhetoric and Writing 92A or 92B or 97A or 97B.

Training for students from Mexican American backgrounds in the process of written expression. English grammar and composition; the essay, the term paper. Mexican American Studies 111B is equivalent to Rhetoric and Writing 100. Not open to students with credit in Rhetoric and Writing 100 or higher-numbered composition or creative writing course or Africana Studies 120 or Linguistics 100.

120A-120B. The Mexican American Role in the American Political System (3-3)

Semester I: Relationship between the Mexican American community and the American political system. Semester II: The Mexican American in relation to his city, county, and state institutions in California. This year course satisfies the graduation requirement in American Institutions.

141A-141B. History of the United States (3-3)

Spanish, Mexican, and Chicano influences on US history. Semester I: Comparative development of US and Mexico to 1865. Semester II: Mexican Americans in US history; US and Mexican national histories compared from 1865 to the present. This year course satisfies the graduation requirement in American Institutions.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

301. Political Economy of the Chicano People (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Mexican American Studies 110A-110B.

Political and economic roots of the oppression and exploitation of the Chicano from historical, institutional and theoretical points of view. Parallels between the experience of the Chicano and other Hispanic groups.

303. Mexican American Community Studies (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Mexican American Studies 110A or 110B.

Mexican American communities from a comparative perspective. Systematic inquiry into methods and issues in community studies. Contemporary social, institutional, and political affairs.

306. Mexican Immigration (3)

Immigration from Mexico in the context of US immigration history and policies. Comparative study of political, economic, and cultural factors. Undocumented immigration and current US law.

310. Mexican and Chicano Music (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Music of Mexico and the Southwest including folk dances appropriate for children and adults. Emphasis on the corrido, its history and development in Mexico and the US. Course will be taught bilingually.

314A. Rondalla I (3)

Six hours of activity.

Prerequisites: Upper division standing; Mexican American Studies 301 and consent of instructor.

Music of pre-Columbian and various Mexican romantic historical genres, i.e. corridos (ballads), musica Jarocho (music of Veracruz), boleros (romantic music), musica Nortena (music of Northern Mexico). Emphasis on cultural context, style, and techniques.

314B. Rondalla II (3)

Six hours per week.

Prerequisite: Mexican American Studies 314A.

Development of intermediate skills in Rondalla music, instruments, and their use. Three-voice harmony, guitar, requinto, and guitarron.

320. Mexican American Life Styles (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Social relations and cultural evolution in the Mexican American community, female-male relationships, and family. Influence of Spanish-Mexican feudal cultural heritage and US industrial-capitalist society. Comparative cross-cultural social science methodology. Includes interview techniques.

324. Gramatica Cantada (Pedagogia, Musica y Cultura) (3)

Methods and materials of Spanish instruction through music of Mexico and the Southwest.

335. Mexican American Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Ideas, forms, history of significant Mexican American prose, poetry and other literary genres.

340. Mexican Women in Historical Perspective: Pre-Columbian to 1848 (3)

Prerequisites recommended: Mexican American Studies 111B and upper division standing.

US-Mexican history or Mexican women from Pre-Columbian Mexican era to annexation of Mexico's northern territories by US. Theoretical and methodological issues appraised as are gender-based norms, class and racial distinctions, and significance of female historical figures to Mexican identity.

350A-350B. Chicano History (3-3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Semester I: Review of indigenous origins; Hispanic institutions and northward expansion; the Mexican Republic. Semester II: Early US encroachment and the Mexican American War; Chicano influences and contributions; the multilingual and multicultural Southwest.

355. The United States-Mexico International Border (3) I

Prerequisites: Upper division standing; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

History, culture, economics, and politics of US/Mexico border region. Theories and policy issues surrounding development of region; local regional problems and major agencies, institutions, organizations addressing these problems.

357. US/Mexico Border: Urbanism and Architecture (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Mexican American Studies 355.

Study of international border architecture by surveying urban design and architecture traditions in Mexico and the United States. Focus on pre-colonial and colonial urban design, nineteenth century traditions, modern architecture, economic forces shaping urban design, Hispanic architecture in the US sunbelt.

375. US/Mexico Border History (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Recommended: Mexican American Studies 110A.

Historical problems and movements in the US/Mexico border region, in particular those impacting Spanish-speaking populations on both sides of the border. Contemporary border issues from a historical perspective.

376. Mexican American Culture and Thought (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Intellectual history of the Mexican American as a synthesis of different cultural traditions and perspectives. Philosophical concepts from pre-Cortesian times to the present.

380. US/Mexico Borderlands Folklore (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Recommended: Mexican American Studies 110A or 110B.

Border folklore; myths, rituals, legends, sayings, and songs of Chicanos and Mexicanos in the US.

396W. Chicano Prose: Creative Writing (3)

Prerequisite: Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

A writing workshop. Mutual criticism. Exploration of new form and content in Mexican American prose. Maximum credit six units.

464. Literature for the Chicano Bilingual Student (3)

Chicano literature for the preschool, elementary, and junior high bilingual Chicano student.

480. The Mexican American and the Schools (3)

Prerequisite recommended: Mexican American Studies 110A or 110B.

The Mexican American child's experience in the school system from preschool through high school with emphasis on social, intellectual and emotional growth and development.

496. Selected Topics in Mexican American Studies (1-3)

Intensive exploration of selected topics in the area of Mexican American studies. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

498. Internship in US-Mexico Border (3)

Nine to twelve hours per week plus four class meetings.

Prerequisites: Upper division standing, Mexican American Studies 355, and consent of instructor.

Internship in public or private sector institution, agency, or organization engaged in US-Mexico binational relations or border-related issues. Meets requirements for United States-Mexico Border Studies certificate program.

499. Special Study (1-3)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

**UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)**

596. Topics in Mexican American Studies (1-3)

Prerequisite: Consent of instructor.

Advanced topics in Mexican American studies. See Class Schedule for specific content. May be repeated with new content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

597. US/Mexico Border: Urban and Regional Development (3)

Prerequisite: Mexican American Studies 355.

US/Mexico border region as seen through the lens of city and regional planning and geography.

Military Science

In the College of Professional Studies and Fine Arts

OFFICE: Physical Education 451

TELEPHONE: (619) 594-4943

Faculty

Chair: Roberts

Professor: Roberts

Assistant Professors: Costagliola, Martini, Smith

Offered by the Department

Army ROTC curriculum leading to a commission as a Second Lieutenant in the US Army.

Minor in Military Science.

Curriculum

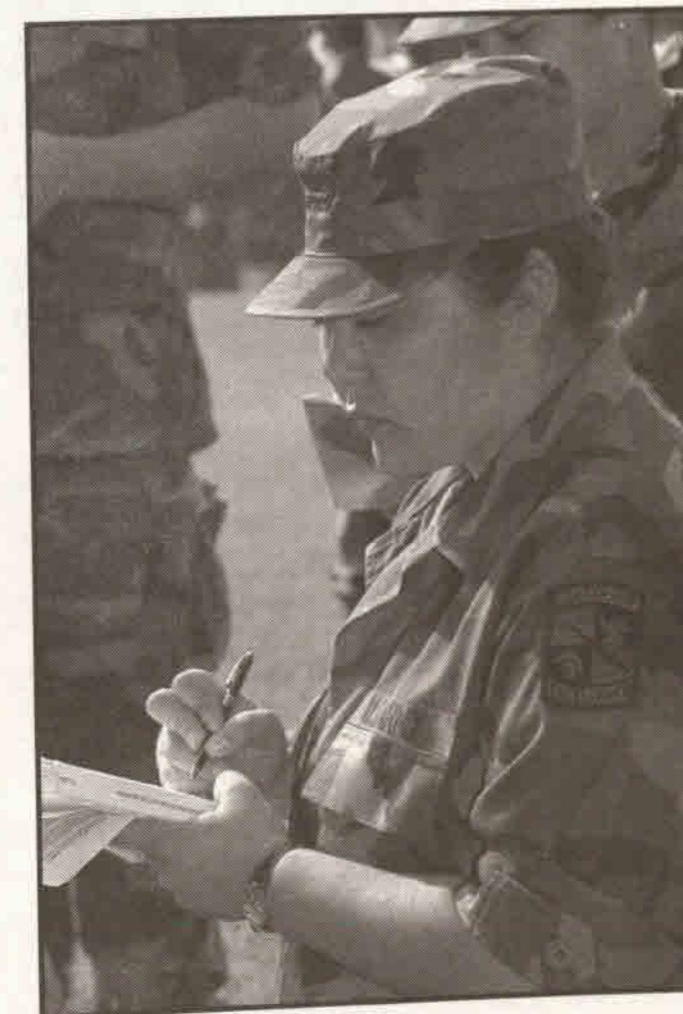
The Department of Military Science offers both a four-year and a two-year Army Reserve Officers Training Corps (ROTC) program designed to develop future officers in the areas of leadership, management, foreign policy, national security, military history, and military skills. The Army ROTC program also offers a series of optional adventure outings and on-campus activities during the school year. These include orienteering, rappelling, sports programs and social activities. Enrollment in the Army ROTC program is not a requirement for taking military science courses. The Military Science Department offers a varied class schedule to meet students' requirements.

The Army ROTC program consists of one course per semester along with scheduled leadership laboratories and field training. The four-year program is divided into two parts: the basic course and the advanced course. The basic course is usually taken in the freshman and sophomore years. No military commitment is incurred during this time, and students may withdraw at any time through the end of the second year. The first year consists of two-unit introductory courses each semester. The second year consists of two-unit courses with instruction on organizational leadership theories. Uniforms, necessary military science textbooks, and materials are furnished without cost.

After completing the basic course, students who have demonstrated officer potential, have met physical and scholastic standards and agree to contract are eligible to enroll in the advanced course. This course is normally taken in the final two years of college and consists of outlined military science and designated enrichment courses that include written communication skills, human behavior, military history, computer literacy, and math reasoning. In addition, the advanced course consists of a paid six-week Advanced Camp held during the summer between the junior and senior years. This camp permits students to put into practice the principles and theories acquired in the classroom. All students in the advanced course receive uniforms, necessary military science textbooks, pay for the Advanced Camp, and a living allowance of up to \$1,500 each school year.

Upon completion of the advanced course, students are commissioned Second Lieutenants in the US Army. The available options after commissioning are active duty for a minimum of three years or three months active duty for training followed by part-time participation in the US Army Reserve or US Army National Guard.

Several special programs are available for students who have previous ROTC training or active military service. These programs allow for part- or full-placement credit for the basic course. In addition, a program is available for simultaneous participation in both Army ROTC and the Army Reserve or Army National Guard.



Two-Year Commissioning Program

This program offers students the opportunity to be commissioned officers after two years of Army ROTC instead of four years. The two year program is designed for community and junior college graduates and students who did not take Army ROTC during their first two years or who have prior military experience. The six-week summer basic camp course of instruction (MS 221) provides the military skills and leadership training normally taught during the freshman and sophomore years. The basic camp is conducted at Fort Knox, Kentucky, and a paid salary, transportation, meals, and lodging will be furnished. Basic camp graduates enroll in MS 301 to enter the advanced course.

Cross Enrollment

Students can participate in Army ROTC while attending any area college or university. For further information concerning cross enrollment, contact the Department of Military Science at (619) 594-4943.

Applying for the Program

SDSU students enroll in military science courses by signing up during registration in the same manner as for other University classes. There is no advance application needed for the freshman or sophomore classes. Students need to contact the Department of Military Science to enroll in the Army ROTC program and to receive information on lab schedules and activities.

Students enrolling in other area colleges and universities need to contact the Department of Military Science at SDSU for curriculum requirements and application procedures at (619) 594-4943.

Financial Assistance

All students have the opportunity to compete for three- and two-year scholarships. These scholarships cover all tuition, laboratory, and book fees, and a \$150 monthly subsistence allowance during the school year. Scholarship applications are processed by the Department of Military Science. In addition, two-year scholarships are available at the basic camp at Fort Knox, Kentucky, where you will be in competition only with the students attending the basic camp. Contact the department chair for details. Paid positions (part-time) are available through simultaneous membership in local reserve and National Guard units.

Military Science Minor

The minor in military science consists of a minimum of 15 units to include Military Science 301, 302, 411; and six units selected from Military Science 401, 410, 499, and Sociology 499.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

96. Leadership Laboratory (1) I, II

Application of individual skills and military tasks appropriate to a small unit leader. Prepares cadets for higher level leadership positions. Emphasis is on performance in leader roles which includes instruction. Maximum credit two units. Credit earned in this course not applicable to a bachelor's degree.

100A-100B. Introduction to the US Army (2-2) I, II

Semester I: Structure, organization, and missions of the US Army. Preparation and development for officer status. Semester II: Officer leadership, development, and functions. Emphasizing command responsibilities for a basic foundation of military fundamentals.

210. Contemporary Military Leadership Theories: Individuals and Groups (2) I

Scientific approach to leadership theory and its applicability to military settings through study of human behavior and leadership models at individual and group levels using simulations, case studies, and diagnostic instruments.

211. Contemporary Military Leadership Theories: Organizations (2) II

Leadership at the organizational level with application to military settings with emphasis on developing leader skills and examination of theories and concepts of civil-military relations, using simulations, case studies, and diagnostic instruments.

221-S. Cadet Basic Field Training (3)

Prerequisite: Sophomore standing.

Six-week field training with training in structure, organization, and missions of the US Army; officer leadership, development, and responsibilities; basic military skills; personal conditioning; oral and written military communications. Not open to students with military experience.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

301. Skills of Military Leadership (3) I

Techniques and skills required of military leaders. Military methods of instruction, review of essential map reading skills and case studies of military leadership techniques.

302. Theory and Dynamics of the Military Organization (3) II

Current tactical doctrine and military techniques of planning and coordination required to apply doctrine to small unit operations.

401. American Military History (3) I, II

Prerequisite: Senior level standing for Army ROTC students. Open to non-ROTC students with consent of instructor.

Military history from colonial times to present within framework of the nine principles of war, with focus on leadership, weapons, and tactics of US Army.

410. Senior Leadership Seminar (3) I, II

Prerequisites: Military Science 301 and 302.

Leadership and management problems encountered in a company-sized military unit. Role of the junior officer. Designed to prepare senior cadets for positions as leaders and managers of resources at the platoon/company level.

411. Contemporary Military Policy (3) II

Prerequisites: Military Science 301 and 302.

The military justice system as it has evolved from international law principles and established national security policies. History of military law, the philosophy and structure of the system to include court-martial and alternatives to court-martial.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Consent of department chair.

Individual study. Maximum credit six units.

Music

In the College of Professional Studies and Fine Arts

OFFICE: Music 111

TELEPHONE: (619) 594-6031

Accredited by the National Association of Schools of Music.

Faculty

Emeritus: Anderson, Biggs, Blyth, Brown, Brunson, Estes, Forman, Genzlinger, Hogg, Hurd, Lambert, Loomis, Moe, Mracek, Rohlfleisch, Rost, Smith, Snider

Director: Chambers

Professors: Almond, Barra, Bruderer, Chambers, Dutton, Kolar, Liebowitz, Logan, Meadows, Mitchell, O'Donnell, Peterman, Sheldon, Stauffer, Ward-Steinman, Yates, Yeager

Associate Professors: Follingstad, Hill

Lecturers: Eaton, Friedrichs, Helzer, McDonald, Warman

Applied Music Instruction

Piano: Bruderer, Darby, Follingstad, Katz, Kolar

Harpsichord: Paul

Organ: Plimpton, Spelman

Voice: Chambers, MacKenzie, Tweed, Westbrook

Flute: Buckley, Bursill-Hall, Lukas

Oboe: Michel

Clarinet: Liebowitz

Saxophone: Rekevics, Wilson

Early Instruments: Peterman

Bassoon: Michel

French Horn: Cable

Trumpet: Price

Trombone: Emrich, Prindle, Yeager

Baritone Horn: Dutton

Tuba: Dutton

Percussion: McMahon, Mitchell

Violin: Gaisler, Gruppman, Hill

Viola: Elaine

Cello: Stauffer

Contrabass: G. Biggs

Harp: Hays

Classical Guitar: Benedetti, Kilmer, Romero

Composition: Dutton, Stauffer, Ward-Steinman, D.

Non-Western Instruments: Specialists from specific cultures as available each semester

Jazz Studies: Helzer, Yeager

Opera: Chambers, O'Donnell

Offered by the School of Music and Dance

Master of Arts degree in music.

Master of Music degree.

Major in music with the B.A. degree in applied arts and sciences.

Bachelor of Music degree in applied arts and sciences.

Teaching major in music for the single subject teaching credential.

Minor in music.

The Major

Music serves to enhance the lives of all peoples and provides a challenging avenue of creative expression for those who wish to pursue its serious study. The School of Music and Dance offers an innovative and comprehensive musicianship program as part of the curriculum of all music majors. This program is designed to ensure that every student learns to function as a conductor, performer, coach, editor or arranger. The student receives instruction in sight-reading, sight-singing, improvisation and music composition.

The Bachelor of Music program is for those students who have professional ambitions in music performance or seek a foundation for graduate study leading to college or university teaching. This program strongly emphasizes the performance aspects of music. The Bachelor of Arts degree is similar to a liberal arts degree. The coursework has a slightly lesser emphasis on the rigorous demands of performance and enables students to obtain a broad understanding of music.

For those students who are interested in teaching music, the school offers a major leading to the Single Subject Teaching Credential. A minor is available for students interested in music, yet whose primary interest is with another department.

The performance of music is the most obvious and frequent use of the musician's skill. However, graduates may also teach, compose, review, sell, and record music. In addition, inventing, constructing, tuning, and repairing instruments requires skills which are based on understanding the fundamentals of music. Some of the positions that a music graduate might hold include studio instructor, teacher in public or private schools, researcher for libraries, publishers, and museums; music therapist; recording artist, composer, arranger, or calligrapher; professional musician with an orchestra, band, or opera company.

Music Curricula

The music curricula are designed to fulfill the needs of all students: (1) those who have professional ambitions in music performance, or seek a foundation for graduate study leading to college or university teaching; (2) those who are preparing for one of the several state teaching credentials; (3) those whose major professional interest is in another department, and are seeking musical study as a minor; and (4) those who are interested in music as an elective study area for the enrichment of their cultural background.

General Basic Requirements

General basic requirements for the B.M. degree in applied arts and sciences, the B.A. degree with a major in music in applied arts and sciences or in teacher education are as follows:

1. All new students and transfer students who wish to enroll as music majors or minors are given placement examinations in music theory and auditions on their major instrument and piano. On the basis of these exams and auditions, recommendations of specific courses will be made by the music adviser. The specific courses are Music 155A, 155B, 156A, 156B, 255A, 255B, 256A, 256B, 355A, 355B, 356A, 356B, 455A, 455B, 456A, 456B; Music 251 and 451 with the appropriate letter suffix; and Music 110A-110B, 110C-110D.

2. Each semester of private instruction concludes with a solo performance before a faculty jury. The jury grade accounts for one-third of the final semester grade; the teacher's grade accounts for the remaining two-thirds.

3. To qualify for upper division study, music majors must pass a Junior Level Examination. This is a more intensive solo performance before a faculty jury at the close of the fourth semester of study in Music 251. If it is not passed, a grade of "I" (Incomplete) is recorded. This must be resolved before enrollment in upper division study is permitted.

4. The Comprehensive Musicianship Aural Skills Examination is a requirement for graduation. It is given at the end of each semester and may be retaken until passed. The exam includes sight-singing, melodic and harmonic dictation, error detection, chromatic and modern harmony. A final grade of C (minimum) is required in each semester of the CM courses in order to advance to the next higher course.

5. Students must participate in at least one ensemble each semester of enrollment and must register for credit up to a total of nine units for the B.A. degree, eight units for the B.A. degree with credential, and twelve units for the B.M. degree. At least one-half of the requirement must be met by participation in a "large" ensemble in which the major instrument is used. See the Music Student Handbook for more details.

6. Attendance at and performance in recitals is a requirement of all music majors as set forth in the music recital regulations.

Refer to the Music Student Handbook for detailed information.

Electives in Music – Non-Majors

The School of Music and Dance offers certain courses for students who are interested in music as an elective study area for the enrichment of their cultural background. Courses particularly suited for these needs are Music 102, 110A-110B, 115, 120A, 120B, 151, 240, 345, and 351 and the music courses numbered 170 to 189 and from 369 to 389. Some students will be musically prepared to elect courses which may or may not be included in this group. Enrollment by qualified students who wish to elect these courses is encouraged.

Opportunities to participate in instrumental and vocal ensembles are also available to non-music majors. Music ensemble courses may be repeated. A maximum credit of eight units of ensemble courses (Music 170-189, 369-389, 569-589, and 153, 353 and 553) may be counted toward a bachelor's degree for non-majors.

Music Major

With the B.A. Degree in Applied Arts and Sciences (Major Code: 10052)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Music 110A-110B, 110C-110D (may be waived in full or in part by examination); 115, 155A, 155B, 156A, 156B, 157A, 157B; four units selected from courses numbered 170 through 189; five units to include Music 220, 225, 230, 235, 240; four units of Music 251; 255A, 255B, 256A, 256B, 257A, 257B. (28-32 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units to include Music 347, 355A, 355B, 356A, 356B, 357A, 357B; five units selected from courses numbered 369 through 389; four units of Music 451; 455A, 455B, 456A, 456B, 457A, 457B.

Music Major

With the B.M. Degree in Applied Arts and Sciences (Major Code: 10041)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Music 110A-110B, 110C-110D (may be waived in full or in part by examination; not required of students specializing in jazz studies); Music 155A, 155B, 156A, 156B, 157A, 157B; six units selected from courses numbered 170 through 189; four to eight units of Music 251; 255A, 255B, 256A, 256B, 257A, 257B. In addition, students specializing in composition must take two units of Music 207. Students specializing in jazz studies must take Music 166 and 266. (28-34 units)

Foreign Language Requirement. Equivalent knowledge demonstrated in a test of reading knowledge administered by the foreign language department concerned in consultation with the School of Music and Dance, as follows:

1. Vocalists—one semester each of French, German, and Italian.
2. Music History and Literature students—three semesters of one foreign language chosen from French, German, or Italian.
3. Jazz Studies—no foreign language equivalency required.
4. All others—two semesters of one foreign language chosen from French, German, or Italian (except that classical guitar students may substitute Spanish).

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. 39-40 upper division units to include Music 347; and one unit selected from Music 348 or 349 (Music 348 and 349 are not required for jazz studies); Music 355A, 355B, 356A, 356B, 357A, 357B; six units selected from courses numbered 369 through 389; eight units in Music 451; 455A, 455B, 456A, 456B, 457A, 457B (455B, 456B, 457B not required of students specializing in jazz studies). Students specializing in jazz studies must include Music 366, 466, 566A-566B. All majors must fulfill the requirements in one of the following areas of specialization:

(a) **Performance.** Eight units to include Music 367 and 497 and the remaining five units selected with the aid of the music adviser. (Pianists must include Music 541A and 542A. Vocalists must include Music 541C and 554.)

Students specializing in performance must appear in a joint recital during the junior year and must present a solo recital during the senior year. The student must pass an audition of the program to be performed before the music faculty no less than one month in advance of the recitals.

(b) **Music History and Literature.** Eight units to include Music 367, 497; and five units of music history and/or music literature electives to be selected with the aid of the music history adviser.

During the senior year, the student specializing in music history and literature is required to organize, prepare program notes, and present two recitals consisting of recorded or "live" performances. Each will deal with representative works of a certain period, composers, or styles to be compared. Such students must pass an audition of the lecture and the music to be performed no less than one month in advance of the recitals.

(c) **Composition.** Nine units to include Music 310; Music 351E or 351F or 561; Music 497; and two units of Music 507.

The specialization may not be formalized until completion of Music 155B, or waiver by examination.

The student specializing in composition is required to present a concert of his compositions during the senior year and present the scores of works to be performed to the music faculty no less than one month in advance of the performance.

(d) **Jazz Studies.** Seven units to include Music 364A-364B, 367, 497.

Music Major

For the Single Subject Teaching Credential With the B.A. Degree in Applied Arts and Sciences (Major Code: 10052)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education.

This major may be used by students in policy studies or teacher education as an undergraduate major for the B.A. degree in applied arts and sciences.

Admission to teacher education is required prior to graduation with this major.



Preparation for the Major. Music 110A-110B, 110C-110D (may be waived in full or in part by examination); 115, 155A, 155B, 156A, 156B, 157A, 157B; five units to include Music 220, 225, 230, 235, and 240; four units selected from courses numbered 170 through 189; 146, 246; four units of Music 251; 255A, 255B, 256A, 256B, 257A, 257B. (32-36 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 31 upper division units to include Music 351E or 351F; 355A, 355B, 356A, 356B, 357A, 357B; four units selected from courses numbered 369-389; Music 346, 347, 446; one unit of advanced conducting selected from Music 348, 349; four units of Music 451; 455A, 455B, 456A, 456B, 457A, 457B.

Performance Studies for Credit

Credit may be allowed for performance studies under the following conditions:

1. Properly enrolled music majors may enroll for performance studies with resident faculty without an additional fee.
2. Students may under no circumstances change teachers in the middle of a semester without first securing the permission of the director of the School of Music and Dance.
3. Prior to the start of performance studies at San Diego State University, students are required to take a preliminary audition conducted by music faculty which will indicate status at the beginning of their studies.
4. Students who have dropped out of school or have stopped taking performance studies for credit for one semester or more, upon resumption of that instruction for credit are required to present another preliminary audition.
5. At the end of each semester, the School of Music and Dance will sponsor a jury examination to satisfy itself that its standards have been met.

6. Students enrolled in performance studies must be concurrently enrolled in the Comprehensive Musicianship program until such time as the CM requirements are fulfilled.

Music Minor

To be admitted to the minor program, the student must audition to demonstrate vocal or instrumental performing ability.

The minor in music consists of 24 units in music selected from one of the following areas:

Elementary Music Education. Requirements include Music 102, 110A, 110B, 115, 146; two units of Music 170-189; four units of Music 220, 225, 230, 235, 240; Music 343, 345; two units of Music 369-389; and two units of upper division music electives.

Students selecting this minor are not required to audition on an instrument or voice. Students receive a strong multicultural component in Music 343 and 345.

Music (Classical). To be admitted to this area students must take a placement examination in comprehensive musicianship. Requirements include Music 110A-110B, 155A, 155B, 156A, 156B, 255A, 255B, 256A, 256B; two units selected from Music 170-189; two units selected from Music 369-389; and eight units of upper division electives selected with the approval of the adviser.

Jazz (Instrumental). Requirements include four units of Music 170 or 370; four units of Music 189 or 389; Music 166, 266, 364A-364B, 366, 466, 566A*, 566B*.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

* Additional prerequisites required.

Courses

LOWER DIVISION COURSES

90A. Fundamentals of Music Theory (2) Cr/NC

One lecture and two hours of activity

Develop an understanding of notation, rhythm, pitch, keys, meters, scales, intervals, chords and music terminology. Not open to students with credit in Music 102. Credit earned in this course not applicable to a bachelor's degree. (Formerly numbered Music 104.)

90B. Fundamentals of Music Theory — Sight Singing (1) Cr/NC

Three hours of laboratory.

Develop basic sight singing skills. Credit earned in this course not applicable to a bachelor's degree. Not open to students with credit in Music 102 or 104.

101. Recitals (1) Cr/NC I, II

Preparation for individual solo performances and attendance at a minimum of 12 concerts or recitals in accordance with music requirements. Maximum credit four units.

102. Basic Musicianship for Non-Music Majors (3) I, II

Two lectures and two hours of activity.

Rudimentary music theory involving the elements of music: melody, rhythm, and harmony. Developing the understanding of these elements through instrumental and vocal experiences which include the use of unison and part-singing, the keyboard, and simple melodic and harmonic instruments. Not open to students with credit in Music 104.

103. Basic Aural Skills (1) Cr/NC

Three hours of laboratory.

Prerequisite: Ability to read music.

Preparation for the Junior Level Aural Skills Examination for music majors only.

A. Sight Singing

B. Melodic, Two-Part Contrapuntal and Four-Part Harmonic Dictation

110A-110B. Piano — Elementary Class Instruction (1-1) I, II

Two hours.

Prerequisite: For 110B: Music 110A with a grade of C (2.0) or better.

Basic keyboard experience through study of music reading, notation, scales, chords, and sight-reading covering a repertoire of beginning and intermediate songs and piano literature, with emphasis on keyboard harmony. Required of music majors and minors and credential candidates for teaching at the kindergarten-primary level.

110C-110D. Piano — Elementary Class Instruction (1-1) I, II

Two hours.

Prerequisites: For 110C: Music 110B with a grade of C (2.0) or better. For 110D: Music 110C with a grade of C (2.0) or better.

Continuation of Music 110A-110B.

115. Voice — Elementary Class Instruction (1) I, II

Two hours.

Prerequisite: Concurrent registration in Music 185.

Mastery of the fundamentals of voice. Not open to voice majors. (Formerly numbered Music 115A.)

120A. Violin and Viola Class Instruction for the Non-Music Major (1) I, II

Two hours.

Prerequisite: Consent of instructor.

Performance studies class in a group lesson environment. Opportunity for observation, instruction, and performance in class situation. (Formerly numbered Music 115A.)

120B. Cello Class Instruction for the Non-Music Major (1) I, II

Two hours.

Prerequisite: Consent of instructor.

Performance studies class in a group lesson environment. Opportunity for observation, instruction, and performance in class situation.

120C. Clarinet Class Instruction for the Non-Music Major (1)

Prerequisite: Consent of instructor.

Performance studies class in a group lesson environment. Opportunity for observation, instruction, and performance in the class situation.

146. Practicum in Music I (2) I

One lecture and two hours of activity.

Prerequisite: Music 155B.

Introduction to music education. Exposure to music teaching profession at all grade levels before choosing an area of specialization.

151. Introduction to Music (3) I, II

Practical approach to hearing music with understanding and pleasure, through study of representative compositions of various styles and performance media, great musicians and their art. Music correlated with other arts through lectures, recordings, concerts.

153. Opera Theatre (2) I, II

Six or more hours per week.

The interpretation and characterization of light and grand opera. Specific work in coordination of operatic ensemble. Maximum credit eight units.

155A. Comprehensive Musicianship — Core (2)

One lecture and two hours of activity.

Prerequisite: Music 90A or passing placement examination. Concurrent registration in Music 156A and 157A.

Direct analysis of musical styles and forms as they have evolved historically: composition, improvisation, performance, and instrumentation; sight-singing, dictation, harmony. Parallel developments in related arts; comparisons with non-Western systems. Open only to music majors and minors. Not open to students with credit in Music 158A.

155B. Comprehensive Musicianship — Core (2)

One lecture and two hours of activity.

Prerequisites: Music 155A with a grade of C (2.0) or better. Concurrent registration in Music 156B and 157B.

Continuation of Music 155A. Monophony to homophony, modes, non-Western focus on South Asia (India). Open only to music majors and minors. Not open to students with credit in Music 158B.

156A. Comprehensive Musicianship — Laboratory (1)

Two hours of activity.

Prerequisites: Passing placement examination for Music 155A. Concurrent registration in Music 155A and 157A.

Practical experience on Javanese Gamelan, computers in music, aural skills, CM core projects. Open only to music majors and minors. Not open to students with credit in Music 158A.

156B. Comprehensive Musicianship — Laboratory (1)

Two hours of activity.

Prerequisites: Music 156A with a grade of C (2.0) or better. Concurrent registration in Music 155B and 157B.

Practical experience in the early music ensemble, Indian rhythmic skills; computers in music, aural skills, CM core projects. Open only to music majors and minors. Not open to students with credit in Music 158B.

157A. Comprehensive Musicianship — World Music (1)

Prerequisites: Passing placement examination for Music 155A. Concurrent registration in Music 155A and 156A.

Musics of the world with a focus on South East Asia (Java). Open only to music majors and minors.

157B. Comprehensive Musicianship — Medieval History (1)

Prerequisites: Music 157A with a grade of C (2.0) or better. Concurrent registration in Music 155B and 156B.

History of music of the Middle Ages. Analytical score study and assigned recordings. Familiarity with musicological resources through individual assignments. Open only to music majors and minors. Not open to students with credit in Music 452A.

166. Elements of Jazz I (2)

Fundamental harmonic analysis of basic jazz progressions, common modes and blues scale variations, solo transcription analysis, and ear-training.

Performance Organization Courses
(Music 170 through 189)

The performance organization courses are devoted to the study in detail and the public performance of a wide range of representative literature for each type of ensemble and designed to provide students with practical experience in rehearsal techniques.

170. Chamber Music (1) I, II

Three hours. Four hours for opera.

Prerequisite: Consent of instructor.

Sections for string, woodwind, brass, piano, vocal, and mixed ensemble groups. May be repeated with new content. See Class Schedule for specific content. Maximum credit four units.

174. Concert Band (1) II

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

175. Marching Band (2) I

More than six hours.

Prerequisite: Consent of instructor.

Study and public performance of literature for the ensemble. Practical experience in rehearsal techniques. Maximum combined credit for Music 175 and 375 eight units.

176. Wind Symphony (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Study and performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

180. Symphony Orchestra (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Maximum credit four units.

185. Concert Choir (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Maximum credit four units.

186. Chamber Singers (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal technique. Maximum credit four units.

189. Jazz Ensemble (1) I, II

More than three hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

207. Composition Laboratory (1)

Three hours of laboratory.

Prerequisite: Consent of instructor.

Original writing in different homophonic and polyphonic forms for various media. Maximum credit two units.

220. Strings — Elementary Class Instruction (1)

Two hours.

Fundamentals of string instruments by lecture and acquisition of elementary skills for purpose of gaining teaching and conducting skills in working with strings. Primarily for music education majors. (Formerly numbered Music 220A and 220B.)

225. Woodwinds — Elementary Class Instruction (1)

Two hours.

Fundamentals of woodwind instruments by lecture and acquisition of elementary skills for purpose of gaining teaching and conducting skills in working with woodwinds. Primarily for music education majors. (Formerly numbered Music 225A-225B.)

230. Brass — Elementary Class Instruction (1)

Two hours.

Fundamentals of brass instruments by lecture and acquisition of elementary skills.

235. Percussion — Elementary Class Instruction (1)

Two hours.

Fundamentals of percussion through acquisition of elementary skill on the snare drum and by demonstration and lecture regarding all commonly used percussion instruments of definite and indefinite pitch.

240. Guitar — Elementary Class Instruction (1) I, II

Two hours.

Open to all students interested in fundamentals of guitar and elementary music skills.

246. Practicum in Music II (2) II

One lecture and two hours of activity.

Prerequisite: Music 146 with a grade of C (2.0) or better.

Methods and materials. Development of lesson plans and selection of appropriate materials and methods. Rehearsal techniques for elementary, junior high, and high school. Observations of public school master teachers.

251. Performance Studies (1-2) I, II

Fifteen one-half hour private lessons for one unit; fifteen one-hour private lessons for two units.

Prerequisite: Open only to music majors. Audition and approval by music faculty.

Studies in technical, stylistic, and aesthetic elements of artistic performance. Candidates for B.M. degree enroll for two units of credit per semester. Candidates for B.A. degree enroll for one unit of credit per semester. Maximum credit for Music 251 is eight units.

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| A. Keyboard | H. Harp |
| B. Voice | I. Jazz Instruments |
| C. Woodwinds | J. Medieval or Renaissance Instruments |
| D. Brass | K. Non-Western Instruments |
| E. Percussion | L. Composition |
| F. Strings | |
| G. Classical Guitar | |

255A. Comprehensive Musicianship — Core (1)

Prerequisites: Music 155B with a grade of C (2.0) or better. Concurrent registration in Music 256A and 257A.

Continuation of Music 155B. Harmony in the eighteenth century. Modal and tonal counterpoint. Open only to music majors and minors. Not open to students with credit in Music 158A-158B or Music 258A-258B.

255B. Comprehensive Musicianship — Core (1)

Prerequisites: Music 255A with a grade of C (2.0) or better. Concurrent registration in Music 256B and 257B.

Continuation of Music 255A. Harmony in the eighteenth century. Tonal counterpoint. Open only to music majors and minors. Not open to students with credit in Music 158A-158B or Music 258A-258B.

256A. Comprehensive Musicianship – Laboratory (1)

Two hours of activity.

Prerequisites: Music 156B with a grade of C (2.0) or better. Concurrent registration in Music 255A and 257A.

Practical experience in the early music and Indian music ensembles; projects in modal jazz and Islamic music; CM core projects. Open only to music majors and minors. Not open to students with credit in Music 158A-158B or Music 258A-258B.

256B. Comprehensive Musicianship – Laboratory (1)

Two hours of activity.

Prerequisites: Music 256A with a grade of C (2.0) or better. Concurrent registration in Music 255B and 257B.

Practical experience in Balinese gamelan, African drumming, jazz improvisation; projects in musics of subSaharan African and African roots of jazz; CM core projects. Open only to music majors and minors. Not open to students with credit in Music 158A-158B or Music 258A-258B.

257A. Comprehensive Musicianship – Renaissance History (1)

Prerequisites: Music 157B with a grade of C (2.0) or better. Concurrent registration in Music 255A and 256A.

History of music of the Renaissance. Analytical score study and assigned recordings. Familiarity with musicological resources through individual assignments. Open only to music majors and minors. Not open to students with credit in Music 452A.

257B. Comprehensive Musicianship – Baroque History (1)

Prerequisite: Music 257A with a grade of C (2.0) or better. Concurrent registration in Music 255B and 256B.

History of music of the Baroque. Analytical score study and assigned recordings. Familiarity with musicological resources through individual assignments. Open only to music majors and minors. Not open to students with credit in Music 452B.

266. Elements of Jazz II (2)

Prerequisite: Music 166.

Harmonic analysis of standard and bebop repertoire, less common modes and dominant scales, solo transcription, analysis, and ear-training.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

301. Recitals (1) Cr/NC I, II

Preparation for individual solo performances and attendance at a minimum of 12 concerts or recitals in accordance with music requirements. Maximum credit four units.

310. Electronic Music (2)

One lecture and three hours of laboratory.

Prerequisite: Consent of instructor.

Concepts, terminology and history combined with composition and recording projects introducing analog electronic music with multi-track recording and analog synthesizers; or digital electronic music using digital synthesizers and computer software. May be repeated with new content. Maximum credit four units.

311. Electronic Music Composition Laboratory (1) I, II

Three hours of laboratory.

Prerequisites: Music 310 and consent of instructor.

Discussion and presentation of independent electronic music works in progress. Maximum credit four units.

340. Guitar-Intermediate Class Instruction (1) I, II

Two hours.

Prerequisite: Music 240 with a grade of C (2.0) or better.

Playing styles of folk, popular, and jazz with emphasis on classical music and technique. Theory, reading music, transcription and performance. Group instruction.

343. Music Literature for Children (3) I, II

Prerequisite: Music 102 or 155B.

Analytical study of music suitable for children of all ages. Background information, musical structure and functions of this music in the lives of children are included.

345. World Music in Contemporary Life (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Folk, ancient, and modern art music of world cultures, including traditional music of Africa, Asia, Latin America, the United States and Europe, as they relate to contemporary culture. Concert attendance required.

346. Practicum in Music III (2) I

One lecture and two hours of activity.

Prerequisite: Music 246 with a grade of C (2.0) or better.

Practical teaching applications. Students will develop and teach model lessons evaluated by students, faculty, and master teachers. Students choose a primary area of specialization and a master teacher in preparation for the final semester of the practicum series.

347. Conducting (1)

Prerequisite: Music 255B with a grade of C (2.0) or better.

Basic techniques of conducting. Baton technique, conducting patterns, score reading, elements of performance and interpretation. Practical experience in typical conducting situations. Not open to students with credit in Music 448A and 449A.

348. Choral Conducting (1)

Prerequisite: Music 347 with a grade of C (2.0) or better.

Elements of baton technique and development of skills common to choral conducting. Representative literature and techniques for choral organizations studied and performed. Practical experience in typical conducting situations. (Formerly numbered Music 448B.)

349. Instrumental Conducting (1)

Prerequisite: Music 347 with a grade of C (2.0) or better.

Elements of baton technique and development of skills common to instrumental conducting. Representative literature and techniques for instrumental organizations studied and performed. Practical experience in typical conducting situations. (Formerly numbered Music 449B.)

351. Great Music (3) I, II

Prerequisite for Music 351A-D: Completion of the General Education requirement in Foundations II.C., Humanities.

Significant music literature of the various historical periods with emphasis on the stylistic characteristics through directed listening.

- A. Musical Masterpieces of the Eighteenth and Nineteenth Centuries
- B. Musical Masterpieces of the Twentieth Century
- C. Masterpieces of Grand Opera
- D. Jazz History and Appreciation
- E. Music of Africa and the Americas
- F. Music of Asia and the Pacific

353. Opera Theatre (2) I, II

Six or more hours per week.

Interpretation and characterization of light and grand opera. Specific work in coordination of opera ensemble. Maximum credit eight units.

355A. Comprehensive Musicianship – Core (1)

Prerequisites: Music 255B with a grade of C (2.0) or better. Concurrent registration in Music 356A and 357A.

Continuation of Music 255B. Tonal harmony in four or more parts. Composition and analysis in classic and neo-classic style. Sight-singing and aural skills. Music majors and minors only.

355B. Comprehensive Musicianship – Core (1)

Prerequisites: Open only to music majors and minors. Music 355A with a grade of C (2.0) or better. Concurrent registration in Music 356B and 357B.

Continuation of Music 355A. Advanced harmony of the late nineteenth and early twentieth centuries. Composition and analysis in late-Romantic (chromatic) or Impressionist style. Sight-singing and aural skills.

356A. Comprehensive Musicianship – Laboratory (1)

Two hours of activity.

Prerequisites: Open only to music majors and minors. Music 256B with a grade of C (2.0) or better. Concurrent registration in Music 355A and 357A.

Practical experience in Latin American ensembles; introduction to tonal jazz improvisation; choral readings in Euro-American classical repertory; comprehensive musicianship core projects.

356B. Comprehensive Musicianship – Laboratory (1)

Two hours of activity.

Prerequisites: Open only to music majors and minors. Music 356A with a grade of C (2.0) or better. Concurrent registration in Music 355B and 357B.

Practical experience in a Japanese Gagaku ensemble; choral readings in the romantic, early twentieth century repertory; comprehensive musicianship core projects.

357A. Comprehensive Musicianship – Classical History (1)

Prerequisites: Open only to music majors and minors. Music 257B with a grade of C (2.0) or better. Concurrent registration in Music 355A and 356A.

History of music of classical era. Analytical score study and assigned recordings. Familiarity with musicological resources through individual assignments. (Formerly numbered Music 452.)

357B. Comprehensive Musicianship – Romantic History (1)

Prerequisites: Open only to music majors and minors. Music 357A with a grade of C (2.0) or better. Concurrent registration in Music 355B and 356B.

History of music of the romantic era. Analytical score study and assigned recordings. Familiarity with musicological resources through individual assignments. (Formerly numbered Music 452.)

364A-364B. History of Jazz (2-2)

Jazz style and forms as they have evolved historically. Classroom playing experience in jazz styles as a part of study. Designed for music majors and minors.

366. Elements of Jazz III (2)

Prerequisite: Music 266.

Post bop repertoire, altered modes and scales, solo transcription, analysis, and ear-training.

367. Junior Recital (1) I, II

Prerequisite: Junior standing in music.

Selection of literature for recital program not to exceed 30 minutes in length; theoretical analysis and historical study of scores chosen; preparation and public performance; and examination before committee of music faculty.

Performance Organization Courses (Music 369 through 389)

The performance group courses are devoted to the study in detail and the public performance of a wide range of representative literature for each type of ensemble, and designed to provide students with practical experience in rehearsal techniques.

369. Collegium Musicum (1) I, II

Prerequisite: Consent of instructor.

Performance of medieval and renaissance music on reproductions of historical instruments. May be repeated with new content. See Class Schedule for specific content. Maximum credit four units.

370. Chamber Music (1) I, II

Three hours. Four hours for opera.

Prerequisite: Consent of instructor.

Section for string, woodwind, brass, piano, vocal, and mixed ensemble groups. May be repeated with new content. See Class Schedule for specific content. Maximum credit four units.

374. Concert Band (1) II

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

375. Marching Band (2) I

More than six hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal technique. Maximum combined credit for Music 175 and 375 eight units.

376. Wind Symphony (1) I, II

Five hours per week.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

380. Symphony Orchestra (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Maximum credit four units.

385. Concert Choir (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Maximum credit four units.

386. Chamber Singers (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal technique. Maximum credit four units.

389. Jazz Ensemble (1) I, II

More than three hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

397. Issues in Music Education (Credit to be arranged) (Offered only in Extension)

Prerequisites: Consent of instructor and bachelor's degree.

Study of specially selected issues in music education. Does not apply to undergraduate degrees or completion of teaching credential.

420. Ethnic Instruments Class for the Non-Music Major (1)

Two hours.

Prerequisite: Concurrent registration in Music 345.

Observation, instruction, and performance of ethnic instruments of the world in a group lesson environment. Maximum credit two units with new content.

446. Practicum in Music IV (2) II

One lecture and two hours of activity.

Prerequisite: Music 346 with a grade of C (2.0) or better.

Early field experience. Students will complete 20 hours of public school teaching in their area of specialization. Master teachers will provide on-site guidance and evaluation. Field experience and increased effectiveness will be discussed.

451. Performance Studies (1-2) I, II

Fifteen one-half hour private lessons for one unit; fifteen one-hour private lessons for two units.

Prerequisite: Open only to music majors. Audition and approval by music faculty.

Studies in technical, stylistic, and aesthetic elements of artistic performance. Candidates for the B.M. degree enroll for two units of credit per semester. Candidates for the B.A. degree enroll for one unit of credit per semester. Maximum credit for Music 451 is eight units.

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|----------------------------|---|
| A. Keyboard | H. Harp |
| B. Voice | I. Jazz Instruments |
| C. Woodwinds | J. Medieval or Renaissance Instruments |
| D. Brass | K. Non-Western Instruments |
| E. Percussion | L. Composition |
| F. Strings | |
| G. Classical Guitar | |

455A. Comprehensive Musicianship – Core (2)

Prerequisites: Open only to music majors and minors. Music 355B with a grade of C (2.0) or better. Concurrent registration in Music 456A and 457A.

Continuation of Music 355B. Post-Impressionist harmony and counterpoint in the twentieth century. Polyharmony, polytonality, pandiatonicism, octatonic, atonal, dodecaphonic and serial techniques. Composition and analysis of an original post-tonal or serial piece. World music synthesis.

455B. Comprehensive Musicianship – Core (2)

Prerequisites: Open only to music majors and minors. Music 455A with a grade of C (2.0) or better. Concurrent registration in Music 456B and 457B.

Continuation of Music 455A. Independent projects in performance, analysis, composition and conducting for large ensemble (orchestra, wind symphony, choral-instrumental group, jazz or world music ensemble). Composition and orchestration utilizing post-1950 techniques.

456A. Comprehensive Musicianship – Laboratory (1)

Two hours of activity.

Prerequisites: Open only to music majors and minors. Music 356B with a grade of C (2.0) or better. Concurrent registration in Music 455A and 457A.

Practical experience in the new music ensemble and world music ensembles; rehearsal and performance of comprehensive musicianship core projects.

456B. Comprehensive Musicianship – Laboratory (1)

Two hours of activity.

Prerequisites: Open only to music majors and minors. Music 456A with a grade of C (2.0) or better. Concurrent registration in Music 455B and 457B.

Practical experience in jazz improvisation; new music ensemble graphic score realization; rehearsal and performance of comprehensive musicianship core composition projects.

457A. Comprehensive Musicianship – Twentieth Century (1)

Prerequisites: Open only to music majors and minors. Music 357B with a grade of C (2.0) or better. Concurrent registration in Music 455A and 456A.

History of music of the twentieth century. Analytical score study and assigned recordings. Familiarity with musicological resources through individual assignments. (Formerly numbered Music 452.)

457B. Comprehensive Musicianship – Survey of Jazz (1)

Prerequisites: Open only to music majors and minors. Music 457A with a grade of C (2.0) or better. Concurrent registration in Music 455B and 456B.

Historical and theoretical overview of jazz art music tradition. Rhythmic, harmonic, and melodic components. Analytical score study and assigned recordings. (Formerly numbered Music 452.)

466. Elements of Jazz IV (2)

Prerequisite: Music 366.

Atonal and aeromedical theories and philosophy, research paper, solo transcription, analysis, and ear-training.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

497. Senior Recital (2) I, II

Prerequisite: Senior standing in music.

Selection of literature for recital program not to exceed one hour in length; theoretical analysis and historical study of scores chosen; preparation and public performance; and examination before committee of music faculty.

499. Special Study (1-3) I, II

Prerequisite: Consent of the music director.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)

507. Composition Laboratory (1)

Three hours of laboratory.

Prerequisites: Music 207 with a grade of C (2.0) or better and consent of instructor.

Continuation of Music 207. Maximum credit two units.

515. Professional Orientation for Music Performers (2)

One lecture and two hours of activity.

Prerequisites: Twelve units of upper division or graduate standing in B.M. or M.M. degree. Others by consent of instructor.

Conditions met in professional music world as well as opportunities available. Auditions, contracts, legal and tax responsibilities, media and press promotion, grants, professional management, apprenticeships.

541. Performance Studies Pedagogy (3)

Two lectures and three hours of laboratory.

Prerequisite: Consent of instructor.

Teaching beginning and intermediate applied music. Survey and evaluation of teaching materials. Observation of individual or group lessons.

- | | |
|-----------------|-----------------|
| A. Piano | C. Voice |
|-----------------|-----------------|

542. Performance Studies Laboratory (2)

One lecture and three hours of laboratory.

Prerequisites: For 542A: Music 541A with a grade of C (2.0) or better. For 542C: Music 541C with a grade of C (2.0) or better.

Practical experience in the teaching of individual or group lessons.

- | | |
|-----------------|-----------------|
| A. Piano | C. Voice |
|-----------------|-----------------|

543. Diction (1)

Principles of pronunciation and enunciation. Application to song and opera in English, Italian, German, and French.

553. Opera Theatre (2)

Six or more hours per week.

Prerequisite: By audition.

Interpretation and characterization of light and grand opera. Specific work in coordination of opera ensemble. Maximum credit eight units of which six units are applicable to a master's degree.

554. Music Literature (2) I, II

Prerequisite: Music 255B.

A concentrated study of the literature in the several areas listed. Analysis of scores and recordings. See Class Schedule for specific content. Maximum credit six units applicable to a master's degree.

- | |
|---|
| A. Chamber Music Literature |
| B. Symphonic Literature |
| D. Song Literature |
| E. Choral Literature (Cantata, Mass, Oratorio) |
| G. Keyboard Literature (Seventeenth Century through Beethoven) |
| H. Keyboard Literature (Schubert to the Present) |

561. Area Studies: Ethnomusicology (3)

Prerequisites: Music 351E and 351F.

Music of a specific culture. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

562. World Music in Context (2)

One lecture and two hours of activity.

Prerequisites: Music 351E or 351F and consent of instructor.

Practical experience in the performance of specialized traditional genres of world music, social and environmental context in which they exist. Relationship of music, dance, and theater. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

566A-566B. Jazz Arranging and Composition (2-2)

Prerequisite: Music 255B.

Analysis of jazz compositions and arrangements; arranging and composing for large and small jazz ensembles.

569. Advanced Collegium Musicum (1) I, II

Prerequisite: Music 369.

Preparation and performance of representative works by a specific medieval or renaissance composer on historical instruments. May be repeated with new content. See Class Schedule for specific content. Maximum credit four units.

570. Advanced Chamber Music (1) I, II

Three hours.

Prerequisite: Consent of instructor.

Study and public performance of established repertory as well as new compositions. Sections for string, woodwind, brass, piano and mixed ensemble groups. May be repeated with new course content. See Class Schedule for specific content. Maximum credit four units.

576. Wind Symphony (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

581. Symphony Orchestra (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

585. Concert Choir (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

586. Chamber Singers (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal technique. Maximum credit four units.

589. Jazz Ensemble (1) I, II

Three hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

590. Advanced Practicum in Music (3)

Prerequisite: Consent of instructor in area of practicum.

Students will be assigned to appropriate class sections within selected undergraduate area as instructional assistants under staff supervision. (Formerly numbered Music 658.)

591. Theory and Practice of Musical Expression and Interpretation (2)

Prerequisite: Music 255B.

Musical perception as it pertains to expressive aspects of performance. Theories of interpretation and ways in which performers can create the impulse to shape its inherent architectonic structure.

592. Analogs in Music, Art, and Literature (3)

Prerequisite: At least one survey course in music history or appreciation, art history, or comparative literature.

Cross-influences and correspondences in the arts from the standpoints of style, texture, rhythm, and form.

596. Special Topics in Music (1-3)

A specialized study of selected topics from the several areas of music. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Natural Science

In the College of Sciences

OFFICE: Physics 131
TELEPHONE: (619) 594-6240

Faculty

Emeritus: Dessel, Merzbacher, Shull, Thompson
Program Coordinator: Roeder, P.
Faculty: Dowler (Biology), Fisher (Biology), Frost (Geological Sciences), Goldberg (Physics), May (Astronomy), Robinson (Geological Sciences), Roeder, S. (Physics)

Offered by Natural Science

Teaching major in the physical sciences for the single subject teaching credential.
Minor in history of science and technology.

The Major

The physical science major is offered as an interdisciplinary approach to the study of science. It stresses the interrelationship of chemistry and physics, as well as geology, astronomy, and mathematics. The major is designed primarily for students who intend to become high school teachers of both physics and chemistry. The State of California does not offer separate credentials in either chemistry or physics.

Physical Science Major

For the Single Subject Teaching Credential
With the B.S. Degree in Applied Arts and Sciences
(Major Code: 19011)

No new students are being admitted to the program at this time. The Physical Science major is in the process of being revised. Contact the department.

All candidates for a teaching credential must complete all requirements outlined in this section of the catalog under Policy Studies or Teacher Education.

This major may be used by students in policy studies or teacher education as an undergraduate major for the B.S. degree in applied arts and sciences; it prepares students for certification to teach chemistry and physics in secondary schools.

Preparation for the Major. Astronomy 101; Chemistry 200, 201, 231; Computer Science 107; Geological Sciences 100; Mathematics 150, 151, and 252; Physics 195, 195L, 196, 196L, 197, 197L. (48 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 34 upper division units to include Chemistry 361A, 410A; Physics 311; Natural Science 315, 316, 500; Oceanography 541; and 12 units of upper division electives in mathematics or the sciences.

Minor in History of Science and Technology

The minor in the history of science and technology consists of a minimum of 18 units to include Natural Science 315 and 316, and 12 units selected from Natural Science 317; History 484, 485; Mathematics 303; Philosophy 537.

Courses in the minor may not be counted toward the major, but may be used to satisfy requirements for preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSE

100. Physical Science (3) I, II

Introduction to concepts and processes in science intended to show why science is essential to a liberal education by recognizing relationship with other areas of knowledge such as philosophy, literature, fine arts, economics. Emphasis varies with instructor.

UPPER DIVISION COURSES (Intended for Undergraduates)

315. History of Science I (3) I

Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning, and one of the following courses: Humanities 101, History 100, 101, 105, 106. Recommended: Astronomy 101. General Education prerequisite not required for Physical Science majors.

The growth and development of science from antiquity to the fifteenth century. Emphasis on man's cognitive reactions to his environment through the coalescence of the occult arts, empirical practices and rational thought associated with early scientific theory.

316. History of Science II (3) II

Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning, and one of the following courses: Humanities 101, History 100, 101, 105, 106. Recommended: Astronomy 101 and a course in chemistry. General Education prerequisite not required for Physical Science majors.

The major developments during the sixteenth through nineteenth centuries of the scientific revolution, the rise of empiricism, the emerging role of scientific societies. Histories of particular theories in both the life sciences and physical sciences.

317. Development of Scientific Thought (3)

Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning. Recommended: Mathematics 121.

Basic scientific concepts and their historical development with emphasis on the problem of theory construction. The relationship between disciplined imagination and observational fact, as illustrated by selected case histories. Limitations of scientific inquiry.

333. Technology and Human Values (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning. Recommended: Natural Science 100.

Technologies such as solar and fusion power, lasers, computer services, transport, synthetic food and their impact on values and lifestyles of developed countries. Characteristics of post-industrial society, future shock and biological revolution. Curve extrapolation and simulation by games and computer.

412A-412B-412C. Processes and Inquiry in the Natural Sciences (4-4-4) I, II

Three lectures and two hours of activity.

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning. Investigation of processes of inquiry and rational thinking skills characteristic of the sciences.

- A. Physical Sciences
- B. Earth Sciences
- C. Life Sciences

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

500. Seminar in Curriculum and Instruction in Science (3)

Factors directing the changing science curriculum in secondary schools; recent trends and current research in the teaching of science in secondary schools and in science curriculum development; current practices in science teaching in secondary schools.

596. Special Topics in Natural Science (1-4) I, II, S

Prerequisite: Minimum ten units of natural science.

Selected topics in natural science for preservice and inservice elementary and secondary teachers and candidates for the M.A. in education. May be repeated with consent of instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES Refer to the Graduate Bulletin.



Naval Science

In the College of Professional Studies and Fine Arts

OFFICE: Physical Education 141
TELEPHONE: (619) 594-3730

Faculty

Chair: Boyd
Professor: Boyd
Associate Professor: Behrle
Assistant Professors: Baily, Deaton, Irza, Korman, Lawrence, Lewis, Schweizer, Smith

Offered by the Department

Minor in naval science.

NROTC Curriculum

The Department of Naval Science offers two programs, a scholarship and a nonscholarship program leading to a commission in the United States Navy or United States Marine Corps. Scholarship Program students receive tuition, fees, books and a stipend of \$150 per month while nonscholarship or college program students receive a \$150 per month stipend during their final two years of college. All students receive instruction in essential naval science subjects which, in conjunction with a baccalaureate degree in the field of their major, qualifies them for commissions as Ensign, United States Navy or Second Lieutenant, United States Marine Corps.

Naval science courses are open to all students having an interest in history, national security, foreign policy, organizational leadership, management and the military services. Enrollment in the Naval Reserve Officer Training Corps (NROTC) is not a requirement for taking naval science courses.

Naval Science Minor

The minor in naval science consists of a minimum of fifteen units in naval science, nine of which must be upper division.

Courses in the minor may not be counted toward the major, but may be used to satisfy requirements for preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

101. Introduction to Naval Science (2) I

Structure, principles, and practices; lines of command and control; logistical organizations; functions and services of major components of the Navy and Marine Corps; shipboard organization.

102. Naval Ships Systems I (3) II

Types, structure, and purpose of naval ships; compartmentation, propulsion systems, auxiliary power systems, interior communications, ship control, ship design and stability.

201. Naval Ships Systems II (3) I

Theory and principles of operation of naval weapons systems including types of weapons and control systems, capabilities and limitations, theory of target acquisition, identification and tracking, trajectory principles, and the basics of naval ordnance.

“...we could never learn to be brave and patient, if there were only joy in the world.”

—Helen Keller (1890)

202. Sea Power and Maritime Affairs (3) II

Sea power and maritime affairs; general concept of sea power (including Merchant Marine); role of naval warfare components used to support the Navy's mission; sea power as an instrument of national policy; comparative study of US and Soviet strategies.

UPPER DIVISION COURSES (Intended for Undergraduates)

301. Navigation and Naval Operations I (3) I

Theory, principles, and procedures of ship navigation. Topics include mathematical analysis, spherical triangulation, practical work involving sight reduction, sextants, publications, required logs/reports, piloting, celestial and electronic navigation techniques.

302. Navigation and Naval Operations II (3) II

Prerequisite: Naval Science 301.
Principles and procedures of ship movement and employment including tactical formations and dispositions, relative motion, communications, sonar-radar search and screening theory, rules of the road, lights, signals, and navigational aids.

310. Evolution of Military Conflict (3) II

Forms of warfare through history to formulate the sense of historical continuity in the evolution of warfare, to develop a basic sense of strategy and alternative military actions, and to explore impact of historical precedent on military thought and actions.

401. Naval Leadership I (3) I

Principles of leadership and management. Development of skills in the areas of communications, counseling, control, direction, management, and leadership.

402. Naval Leadership II (3) II

Prerequisite: Naval Science 401.
Human resource management, naval personnel management, material management, and the administration of discipline.

410. Amphibious Operations (3) I

Concept of amphibious warfare, doctrinal origins, and its evolution as an element of naval policy during the twentieth century.

OFFICE: Hardy Tower 58
TELEPHONE: (619) 594-5357

Agency Member of the National League for Nursing and the American Association of Colleges of Nursing. Accredited by the California Board of Registered Nursing and by the National League for Nursing.

Faculty

Emeritus: Black, Dillon (Salerno), Gulino, Hines, Laiho, LaMonica, Leslie, Thomas, Verderber
Director: Wahl
Associate Director: Freitas
Professors: Blenner, Heineken, Lantz, Wahl, Walker, Wozniak
Associate Professors: Broom, Fitzsimmons, Flagg, Freitas, Hadley, Loveridge, Morris, Novak, Reed, Saarmann, Shively
Assistant Professor: Moffett
Lecturers: Burt, Carson, Colwell, Connelly, Daugherty, Elliott, Gilbert, Handysides, Lischke, Long, McCarthy, Rapps

Offered by the School of Nursing

Master of Science degree in nursing.
Major in nursing with the B.S. degree in applied arts and sciences.
Health services credential.

The Major

The nursing profession is concerned with the total health care of the individual and the family. It is a profession which believes in the prevention of illness, caring for those who are acutely ill, and helping people with long-term rehabilitative problems to live in the healthiest way possible. Nursing is both a science and an art. It has its foundation in biophysical and behavioral humanistic sciences, as well as in specific practice skills and techniques.

Students in the nursing program are provided opportunities to acquire knowledge from the natural and social sciences; to develop critical thinking and professional decision-making abilities; to utilize current research in the application of the nursing process; to develop leadership potential and accountability in professional practice; to become aware of the emerging roles of the professional nurse and of the social forces and trends affecting health and health care systems; and to learn to balance professional and personal growth and values.

Nurses are in demand throughout the country and are needed in such settings as acute care hospitals, community health agencies, homes, outreach programs, public schools, health maintenance organizations, and clinics which serve underprivileged, minority, and rural populations. Career opportunities are particularly good for minority, bilingual/bicultural persons.

Standards for Admission

Admission to the University

Applicants must be eligible for admission to the University. See "Regulations: Admission and Registration" section of this catalog. Students accepted as nursing majors are subject to further screening to determine their eligibility to be admitted into the professional coursework.

Admission to the Professional Program in Nursing

1. **Declaration of Major.** Students who are declared nursing majors at SDSU will have first consideration of their application. Students desiring to change their major to nursing will be considered on a space available basis.

Nursing

In the College of Health and Human Services

2. **Prerequisite Courses.** The following courses, or their equivalents, and course grades are required for admission to the nursing program:

- Course grade requirement (C or better) in each of these required university courses: Biology 210, Chemistry 130, Psychology 101, Sociology 101.
- Course grade requirement (B or better) in each of these required university courses: Biology 150, Biology 261.

3. **Minimum Grade Point Average.** Applicants must complete the six prerequisite courses with a minimum overall grade point average of 2.5.

4. **Writing Competency Requirement.** Prior to admission to the School of Nursing, all students must demonstrate their writing competence on one of the following tests.

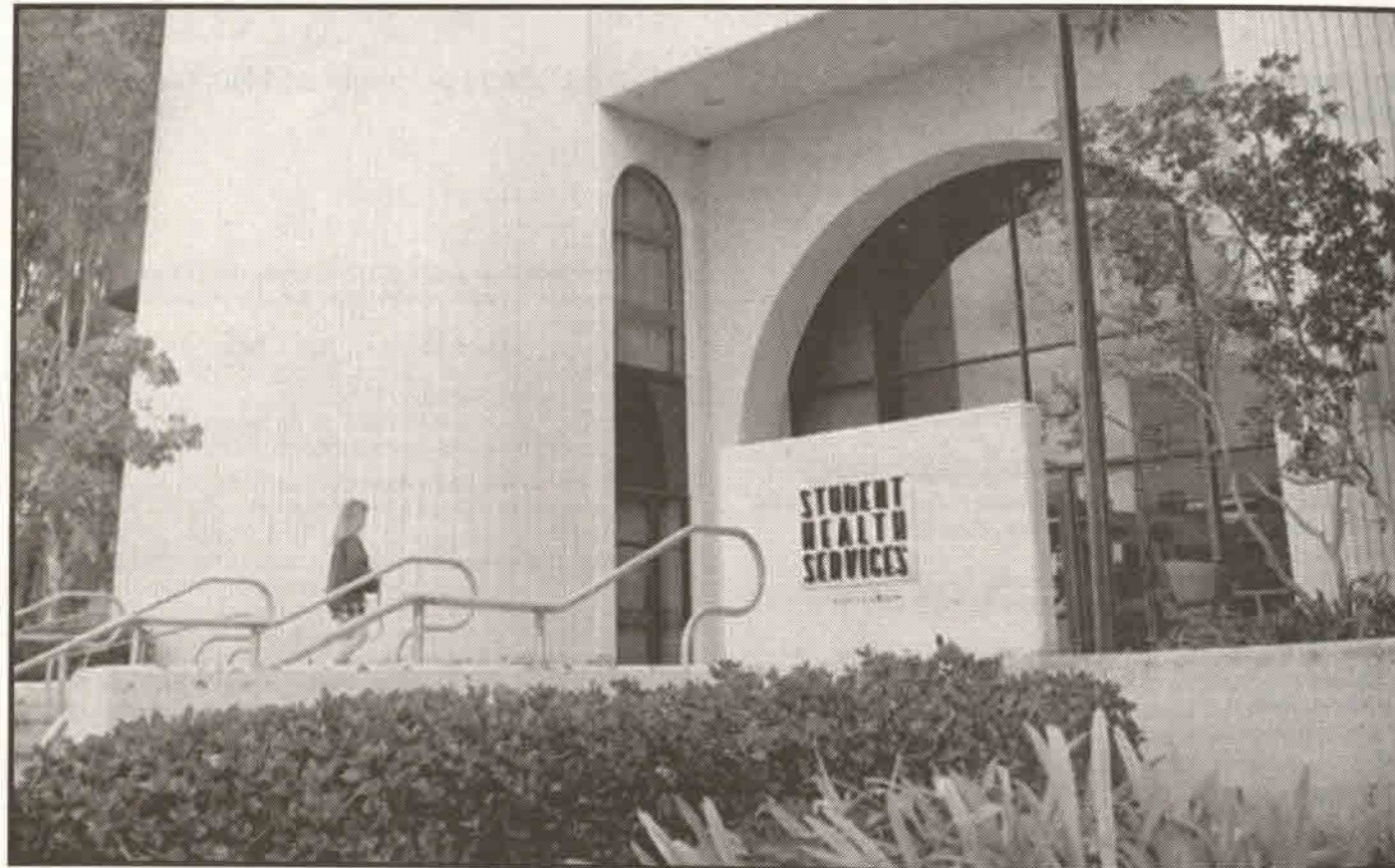
- By a score of 470 on the verbal portion of the Scholastic Aptitude Test.
- By a score of 22 on the American College Tests.
- By a score of 150 on the English Placement Test with score of 7 on essay portion.
- By a score of 8 on the SDSU Writing Competency Examination or earning credit (Cr) in one of the following courses: Rhetoric and Writing 92A and/or 92B, 94, 95, 97A and/or 97B prior to admission to the nursing program.

5. **Additional Point System.** Applicants requesting admission to the professional coursework will be ranked and evaluated on the basis of a point system. A maximum of 94 points can be earned in meeting the prerequisite courses, writing competency, recognition of outstanding achievement, health care experience and bilingual ability requirements, and applicants will be ranked in accordance with points earned. Letters of reference will be required to verify specific achievements, leadership, participation and work experience. For specific additional point system allocation, consult the School of Nursing office.

6. **Health Requirement.** To meet the specific health requirements, a medical examination and immunizations must be completed. The medical examination is in addition to the one required for admission to the University. For specific information concerning medical examination and immunization series, consult the School of Nursing office.

7. **Academic Credit Through Examination.** Academic credit by examination may be obtained by those whose prior education and/or experience provides the knowledge and skills required to meet the objectives of one or more courses. Students who believe they may be eligible for credit by examination should contact the School of Nursing office for an appointment for special advising prior to submitting their application for admission. For University policy regarding credit-by-examination, consult "Academic Credit Through Examination" in the "General Regulations" section of this catalog.

8. **Registered Nurse - Bachelor of Science, Major in Nursing Program.** A registered nurse-Bachelor of Science in nursing program is available for registered nurses with either an Associate Degree in Nursing or a Diploma in Nursing. This program gives credit for previous coursework and is designed with flexible class scheduling and innovative teaching strategies for the working nurse. Students eligible for this option should contact the School of Nursing office for special advising and program planning.



9. Formal Application. Applicants must make an application to the University according to deadlines for impacted programs. In addition, application to the nursing program must be made during the semester that the student is completing prerequisite non-nursing courses (21 units). Application forms may be obtained at the School of Nursing office. Consult the School of Nursing for the deadline date.

Special Instructions

- 1. Impacted Program.** The nursing major is designated as an impacted program and specific regulations related to admissions are imposed. Consult "Impacted Programs" in the "Admissions" section of this catalog for regulations.
- 2. Full-Time/Part-Time Study.** Students are encouraged to enroll in all of the nursing courses scheduled each semester. However, part-time enrollment can be arranged by contacting the undergraduate adviser within the school.
- 3. Liability Insurance and Transportation.** Students enrolled in the nursing program are required to provide their own professional liability insurance and transportation to off-campus clinical agencies and for home visits.
- 4. Honors Program.** The honors program is available to students in the senior level who meet the criteria. Four units of honors courses constitute the honors program and will be validated as such on the official transcript. Less than four units completed will not be validated as "honors," but may be credited as a special studies program.
- 5. Health Insurance.** All students are advised to obtain health insurance coverage. Students are responsible for health care cost when services are rendered by a health care agency.

6. CPR Certification. Students are required to be certified prior to admission. American Heart Association (AHA) certification, health care provider course or ARC Professional Rescue is required.

7. Licensure. Students should request consultation with the undergraduate adviser regarding problems of license by endorsement with other states if the R.N. license examination is taken prior to degree completion.

8. Option Open to L.V.N.'s for eligibility to the R.N. license examination. THIS OPTION HAS NO RELATION TO DEGREE REQUIREMENTS AND DEGREE COMPLETION.

Course Requirements

	Units
BIOL 210 Fundamentals of Microbiology	4
BIOL 261 Human Physiology	4
*# NURS 308 Adult Health Nursing	6
NURS 312 Concepts in Professional Nursing	3
NURS 314 Gerontological Nursing	3
NURS 354 Nursing care of the Childbearing Family	5
OR	
NURS 356 Parent-Child Nursing	5
*# NURS 416 Psychiatric-Mental Health Nursing	5
Total	30

* Includes management/evaluation of patient care.
Includes geriatric nursing.

Sequence of Courses in the Nursing Curriculum

First Year		Second Semester	
First Semester	Units		Units
Chemistry 130	3	Biology 210	4
Biology 150	4	Biology 261	4
Sociology 101	3	Psychology 101	3
G.E. (Written Communication)	3	G.E. (Written Communication)	3
G.E. (Oral Communication)	3	General Education	3
	16		17
Second Year		Second Semester	
First Semester	Units		Units
American Institutions	3	Child & Fam. Dev. 270 or Psych. 330 ..	3
Nursing 202	4	Nursing 252	5
Nursing 206	5	Nursing 254	4
General Education	3	GE (Statistics)	3
	15		15
Third Year		Second Semester	
First Semester	Units		Units
Psychology 351	3	Nursing 307	3
Nursing 308	6	Nursing 354	5
Nursing 314	3	Nursing 356	5
Nursing 456	3	General Education	3
Elective	2		3
	17		16
Fourth Year		Second Semester	
First Semester	Units		Units
Nursing 414	6	Nursing 458	5
Nursing 416	5	Nursing 460	2
General Education	6	Nursing 452, or 454, or 462	5
	17	American Institutions	3
			15

General Education Requirements

Students will complete a minimum of 51 units in General Education to include a minimum of nine upper division units. No more than 12 units may be used for General Education credit from any one department or academic unit.

I. Communication and Critical Thinking: 9 units

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)

II. Foundations: 33 units

- A. Natural Sciences and Quantitative Reasoning (18 units)
 1. Physical Sciences (3 units) to be satisfied by:
Chemistry 130 (3 units)
 - 2-3. Life Sciences and Laboratory (12 units) to be satisfied by:
Biology 150 (4 units)
Biology 210 (4 units)
Biology 261 (4 units)
 4. Mathematics/Quantitative Reasoning (3 units)
- B. Social and Behavioral Sciences (6 units) to be satisfied by:
Psychology 101 (3 units)
Sociology 101 (3 units)
- C. Humanities (9 units)

At least three units must be taken from three of the four areas (1. Literature; 2. Art, Classics, Drama, Humanities, and Music; 3. History; 4. Philosophy and Religious Studies) in the Humanities section of the Foundations component of the regular General Education program. Refer to General Education requirements in the Graduation Requirements section of the catalog.

III. Explorations: Nine units to include Psychology 351 and six upper division units in humanities of which one course must be from areas 1 through 4 not completed in Foundations. Three units must be selected from a course of cultural diversity. Refer to General Education requirements in the Graduation Requirements section of the catalog.

Nursing Major

With the B.S. Degree in Applied Arts and Sciences
(Premajor Code: 12030) (Major Code: 12031)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major. Nursing majors are eligible to take the State Board Registered Nurse license examination after completing seven semesters of the prescribed curriculum. Graduates are eligible to apply for the California Certificate of Public Health Nursing.

Nursing majors may be part-time students in the curriculum. Consultation with the undergraduate adviser is mandatory.

Preparation for the Major. Upon acceptance into the program, Nursing 202, 206, 252, 254; three units in statistics should be selected from the requirement in Communication and Critical Thinking list of Logic, Mathematics, Statistics; three units in growth and development; Psychology 330. (24 units)

NOTE: A grade of C (2.0) or better is required in all nursing courses except Nursing 453 which, as an elective is exempt from this requirement. No nursing course may be repeated more than once. A requirement. No nursing course may be repeated more than once. A grade of C (2.0) or better or Cr is required in corequisite courses. (Psychology 351, growth and development, and statistics).

Progress in the nursing program is dependent upon completion of nursing courses in the prescribed sequence as outlined above. Students will not be permitted to progress to the next semester until nursing courses are completed from the previous semester.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 48 upper division units in nursing to include Nursing 307, 308, 314, 354, 356, 414, 416, 456, 458, 460; and 452 or 454 or 462.

Health Services Credential

(Credential Code: 00600)

San Diego State University offers curricula leading to the Health Services Credential. This authorizes the holder to serve as a School Nurse. For information concerning the credential, the student is referred to the School of Nursing Office, HT-58.

The Health Services Credential has been approved by the Commission on Teacher Credentialing.

All applicants seeking admission to the Health Services Credential program **must** be admitted to the University and accepted as a classified postbaccalaureate student.

Standards for Admission

1. Baccalaureate degree in nursing or related field (including community health nursing).
2. Current California Registered Nurse License.
3. Required admission and planning interview with program adviser.

Program

The following program elements are required of all health services credential candidates: (31 units)

	Units
NURS 500 Client Assessment	4
NURS 670 School Nursing Management Practices	3
NURS 672 Primary Health Care of the School-Aged Child	3
NURS 674 Health Education for School Nurses	3
NURS 900 Current Concepts in Community Health Nursing	3
NURS 901 Family Health Theory and Nursing Practice	3
NURS 902 Primary Health Care of School-Aged Child Practicum	3
C DIS 540 Hearing Conservation and Audiometry for School Nurses	3
SPED 500 Human Exceptionality	3
Electives: Three units to be selected with approval of adviser.	

Courses

LOWER DIVISION COURSES

202. Client Assessment (4)

Two lectures and six hours of laboratory.

Prerequisites: Admission to nursing program; concurrent registration in Nursing 206.

Determining and measuring variables relevant to assessment of psychosocial and physical functioning.

206. Nursing Practice I (5)

Three lectures and six hours of laboratory.

Prerequisites: Admission to nursing program; concurrent registration in Nursing 202.

Basic nursing skills and integration of diagnosis, planning, and implementation of nursing care. Application of nursing process. Not open to students with credit in Nursing 250.

252. Nursing Practice II (5) I, II

Three lectures and six hours of laboratory.

Prerequisites: Nursing 202 and 206; concurrent registration in Nursing 254.

Focus on psychological, social and biological stressors affecting man's health status and the modalities of nursing intervention which promote health. Emphasis on developmental and situational stressors commonly experienced in modern society and man's adaptive and maladaptive behavioral and biological responses from adulthood through senescence.

254. Nurse-Client Relationships: Cultural and Mental Health Concepts (4)

Prerequisites: Nursing 202 and 206; concurrent registration in Nursing 252.

Nurse-client communication and application to clinical nursing practice. Origins of a variety of communication styles. Cultural and mental health concepts related to communication. (Formerly numbered Nursing 204.)

UPPER DIVISION COURSES (Intended for Undergraduates)

307. Nursing Research (3)

Prerequisites: Nursing 308, 314, 456; concurrent registration in Nursing 354 and 356.

Nursing research process. Emphasis on identification of researchable questions and beginning critiquing ability. (Formerly numbered Nursing 350.)

308. Adult Health Nursing (6) I, II

Three lectures and nine hours of laboratory.

Prerequisites: Nursing 252, 254; concurrent registration in Nursing 314 and 456.

Application of theories of stressors and/or biological responses specifically affecting the adult on the health-illness continuum. Laboratory focuses on the application of the nursing process in implementing preventive, supportive, and restorative therapeutic modalities which assist the adult client to reestablish, maintain, or develop new adaptive responses.

312. Concepts in Professional Nursing (3) I, II

Prerequisite: R.N., with Associate Degree or Diploma in nursing.

Concepts in professional nursing. Differentiation of professional practice with emphasis on stress theory, therapeutic communication, values clarification, and legal aspects. Not open to generic students.

314. Gerontological Nursing (3)

Two lectures and three hours of laboratory.

Prerequisites: Nursing 252, 254; concurrent registration in Nursing 308 and 456.

Theory and selected laboratory experience focusing on stressors affecting elderly on health-illness continuum. Gerontologic nursing in a variety of settings.

354. Nursing Care of the Childbearing Family (5) I, II

Two lectures and nine hours of laboratory.

Prerequisites: Nursing 308, 314, 456; concurrent registration in Nursing 307 and 356.

Family-centered focus encompassing adaptive and maladaptive responses to stressors in the maternity cycle and their effect on the neonate. Clinical laboratory focuses on the application of nursing theory and process in providing preventive, supportive and restorative care to mothers and neonates.

356. Parent-Child Nursing (5) I, II

Two lectures and nine hours of laboratory.

Prerequisites: Nursing 308, 314, 456; concurrent registration in Nursing 307 and 354.

Stressors affecting the child on health-illness continuum. Nursing theory and laboratory focuses on application of nursing process in providing preventive, supportive and restorative therapeutic modalities in a variety of settings. Emphasis on the child in the family and the necessary intervention to promote adaptation of the child to attain, maintain or regain an optimum level of health.

414. Community Health Nursing (6) I, II

Three lectures and nine hours of laboratory.

Prerequisites: Nursing 307, 354, 356; concurrent registration in Nursing 416.

Assessment and utilization of community health care concepts and delivery with emphasis on promotion of health, prevention of illness and individual and group teaching techniques. Consideration given to cultural aspects of health care.

416. Psychiatric-Mental Health Nursing (5)

Three lectures and six hours of laboratory.

Prerequisites: Nursing 307, 354, 356; concurrent registration in Nursing 414.

Theory and clinical laboratory in application of nursing process to care of clients evidencing maladaptive responses to psychosocial stressors. Presentation of theories describing and explaining maladaptive behaviors and application of nursing interventions in a variety of treatment modalities. (Formerly numbered Nursing 310.)

452. Basic Concepts in Critical Care Nursing (5) I, II

Three lectures and six hours of laboratory.

Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 453, 458, and 460.

Theory and selected laboratory experience in care of clients with complex health problems requiring intensive nursing care. Consideration given to student's preference for specific clinical area of concentration.

453. Basic EKG Monitoring (1) I, II Cr/NC

Prerequisite recommended: Concurrent registration in Nursing 452.

Basic electrophysiological and interpretive concepts necessary for identification and management of supraventricular and ventricular rhythms.

454. Primary Health Care Nursing (5)

Three lectures and six hours of laboratory.

Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 458 and 460.

Theory and selected laboratory experiences in primary health care settings. Implementation of expanded role of professional nurse in primary care. Major primary care health problems. Health monitoring, continuity of care, epidemiological concepts, risk appraisal, health teaching, counseling, motivation.

456. Clinical Pharmacology in Nursing Practice (3) I, II

Prerequisites: Nursing 252, 254; concurrent registration in Nursing 308, 314.

Major classifications of drugs; pharmacological and toxicological activity; clinical applications. Role of nurse in assessment, intervention, and patient education.

458. Nursing Management and Leadership (5)

Three lectures and six hours of laboratory.

Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 460 and Nursing 452 or 454 or 462.

Theories and functions of nursing management and leadership within health care system. Economics of health care. (Formerly numbered Nursing 412.)

460. Professional Development (2)

Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 458 and Nursing 452 or 454 or 462.

Preparation for professional role in nursing. Emphasis in socioeconomic, political, and legal aspects of nursing. Discussions of advocacy, ethics, and current issues. (Formerly numbered Nursing 306.)

462. Acute Care Nursing (5)

Three lectures and six hours of laboratory.

Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 458 and 460.

Advanced problems in medical and surgical nursing and dimensions of professional nursing role.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

498. Cooperative Education Supervised Practice (2-6) Cr/NC

Seminar: Two hours biweekly. Clinical hours arranged by student and employer.

Prerequisite: Nursing 308.

Supervised practice in application of previously learned knowledge and skills in selected clinical agencies. Professional interaction with other health care workers to strengthen professional nursing identity. Work under supervision of registered nurse preceptor and faculty coordinator. May be repeated. Maximum credit two units applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

500. Client Assessment (4)

Three lectures and three hours of laboratory.

Prerequisite: Consent of graduate adviser.

Physical diagnosis and psychosocial assessment of clients with health problems. Nursing process emphasis to include biopsychosocial health history and nursing diagnosis.

590. Physiologic Basis for Critical Care Nursing (3)

Prerequisite: Consent of graduate adviser.

Physiological alterations in human responses to illness as a basis for prevention, assessment, and nursing interventions in critical care settings.

596. Special Topics in Nursing (1-3)

Prerequisites: Completion of 30 upper division units in nursing or graduate status; 3.0 grade point average.

Selected topics in the practice of nursing. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum credit of three units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES Refer to the Graduate Bulletin.

Nutrition

In the College of Professional Studies and Fine Arts

OFFICE: Physical Education 351

TELEPHONE: (619) 594-5541

Didactic Program in Dietetics is approved by the American Dietetic Association.

Faculty

Emeritus: Boggs, Gunning, Stout
Chair: Carlson
Professors: Josephson, Spindler
Lecturer: Robasciotti

Offered by the Department of Exercise and Nutritional Sciences

Master of Science degree in nutritional sciences.
Major in foods and nutrition with the B.S. degree in applied arts and sciences.

The Major

The major in foods and nutrition offers a comprehensive multidisciplinary study of the nature and quality of the food supply and the nutritional requirements for health in people. Students take core sequences of coursework in the areas of nutrition, food science, and food management founded on prerequisite courses in chemistry, biology, biochemistry, physiology, accounting, management, and the behavioral and social sciences. Course emphasis in the major is placed upon the composition, properties, quality, and safety of foods and food ingredients; the relationships of metabolism and utilization of nutrients in food by the human body to health and disease states; influences of exercise and fitness; the physiological basis for diet therapy; nutrition problems in the community; and organization, management and operation of food service facilities.

This major is planned for students interested in qualifying professionally for diverse careers in the fields of dietetics, food service management, and food industries. The didactic program in foods and nutrition is approved by the American Dietetic Association (ADA) which allows student eligibility for membership in ADA and for post-baccalaureate dietetic internship or preprofessional practice programs. Students must be admitted to and complete satisfactorily a postbaccalaureate program and pass the ADA Registration Examination prior to qualifying for registration as dietitians.

Professional careers in dietetics include administrative, therapeutic, teaching, research, and public service positions in hospitals, schools, clinics, and other public and private organizations and institutions. Graduates may also qualify as food science technical specialists within food companies, governmental agencies, and laboratories; as food service managers; and as specialists in advertising, sales, or marketing of foods and nutritional products and services.

Foods and Nutrition Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 13061)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Nutrition 204, 205, 206, 207, 208, 221; Accountancy 201; Biology 100, 100L, 210; Chemistry 100 (or 200 and 201), 130 (or 230), 160 (except with 200 series); Economics 201 (or Mathematics 250); Psychology 101; Sociology 101. (46-50 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 40 upper division units to include Nutrition 301, 302, 302L, 303, 404, 405, 406; Biology 336; Physical Education 304, 314; the remaining 12 units selected with the approval of adviser from Nutrition 309, 482, 491, 510; Biology 321; Chemistry 361A, 361B, 567; Community Health Education 470; and Management 350 and 352 or Psychology 321.

Courses

LOWER DIVISION COURSES

107. Nutrition Today (3) I, II

Obtaining nutritional needs from a varied food supply.
Not open to foods and nutrition majors or students with credit in Nutrition 204. (Formerly numbered Family Studies and Consumer Sciences 107.)

202. Nutrition for Athletes (3)

Prerequisite recommended: Nutrition 107.
Review of basic diet which will provide nutritional adequacy. Analysis of current theories and practices related to nutrition and athletic performance. (Formerly numbered Family Studies and Consumer Sciences 202.)

204. Fundamentals of Nutrition (3) I, II

Prerequisites: Biology 100, 100L; Chemistry 100 and 130, or 200 and 201. **Proof of completion of prerequisites required:** Copy of transcript.

Nutrition as applied to the stages of the normal life cycle. (Formerly numbered Family Studies and Consumer Sciences 204.)

205. Food Preparation (5)

Three lectures and six hours of laboratory.
Prerequisites: Chemistry 100 and 130 or 200, 201 and concurrent registration in Chemistry 230. **Proof of completion of prerequisites required:** Copy of transcript.

Composition, preparation, preservation, sensory and consumer evaluation of foods. (Formerly numbered Family Studies and Consumer Sciences 205.)

206. Cultural Aspects of Foods and Nutrition (2)

Social, psychological, technological, religious, and health value systems that determine food habits. Food habits of ethnic and regional groups and associated nutritional problems. (Formerly numbered Family Studies and Consumer Sciences 206.)

207. Data Processing in Foods and Nutrition (3) I, II

Two lectures and two hours of activity.
Prerequisite: Concurrent registration in Nutrition 204 or 205.
Computer application in food service management, diet planning, and analysis. (Formerly numbered Family Studies and Consumer Sciences 207.)

208. Nutrition Throughout the Life Cycle (2)

Prerequisite: Nutrition 204.
Nutritive needs of humans at the fetal, infant, child, adolescent, adult, and older adult stages of life. Factors which alter nutrient needs or intake at each stage. Strategies to enable nutritive needs to be met. (Formerly numbered Family Studies and Consumer Sciences 208.)

221. Professional Issues: Foods and Nutrition (1) I, II

Philosophical basis of family studies and relations of its specialties to the field as a whole. (Formerly numbered Family Studies and Consumer Sciences 221.)

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

301. Science of Foods (3)

Prerequisites: Nutrition 205 and Biology 210. **Proof of completion of prerequisites required:** Copy of transcript.

Physical, chemical, nutritional, and functional properties and quality attributes of foods and food additives; food handling, changes and interactions of food components induced by processing and storage; food laws, regulations, legislation, and food safety issues. (Formerly numbered Family Studies and Consumer Sciences 301.)

302. Advanced Nutrition (3)

Prerequisites: Nutrition 204, Biology 336, and one course in biochemistry. Concurrent registration in Nutrition 302L. **Proof of completion of prerequisites required:** Copy of transcript.

Integration of cellular, physiological, and biochemical relationships with human nutrient requirements. (Formerly numbered Family Studies and Consumer Sciences 302.)

302L. Advanced Nutrition Laboratory (2)

Six hours of laboratory.
Prerequisites: Nutrition 204, Biology 336, and one course in biochemistry. Concurrent registration in Nutrition 302. **Proof of completion of prerequisites required:** Copy of transcript.

Application and evaluation of techniques used to assess nutritional status, including basic methods, experimental animal and human studies (Formerly numbered Family Studies and Consumer Sciences 302L.)

303. Quantity Food Production (3)

Two lectures and three hours of laboratory.
Prerequisite: Nutrition 205.
Application and evaluation of techniques and equipment utilized in food service operations for quality and financial control, production, distribution and service of food. (Formerly numbered Family Studies and Consumer Sciences 303.)

309. Eating Disorders and Weight Control (2) Cr/NC

Prerequisite: Upper division standing in foods and nutrition or other majors with consent of instructor.
Obesity and other eating disorders. Review of etiology, incidence, socioeconomic influences, pathogenesis and treatments. Treatment techniques practiced include modification of diet, activity and behavior. Of interest to those wishing to do weight control counseling. (Formerly numbered Family Studies and Consumer Sciences 309.)

311. Nutrition for Health and Fitness (3)

Prerequisites: Biology 100, 150, and Chemistry 100.
Food choices for health contrasted with food fads and eating problems. Nutrition labeling, metabolic roles of nutrients, nutrient needs related to exercise and stage of life, professional and legal concerns

with dietetics for allied health fields. May not be used toward a degree in foods and nutrition. (Formerly numbered Family Studies and Consumer Sciences 311.)

404. Food Systems Management (3) II

Prerequisite: Nutrition 303.
Managerial functions in food service systems. (Formerly numbered Family Studies and Consumer Sciences 404.)

405. Experimental Food Science (3) I, II

One lecture and six hours of laboratory.
Prerequisite: Nutrition 301. **Proof of completion of prerequisite required:** Copy of transcript.

Application of principles and methods of physical and sensory evaluation and food component analysis to conventional and fabricated foods; effects of additives and ingredient variations; project studies; data interpretation and report writing. (Formerly numbered Family Studies and Consumer Sciences 405.)

406. Diet Therapy (4)

Prerequisites: Nutrition 302 and 302L. **Proof of completion of prerequisites required:** Copy of transcript.

Dietary management of pathological and debilitating diseases. (Formerly numbered Family Studies and Consumer Sciences 406.)

482. Educational Practices and Instructional Resources (3)

Prerequisite: Fifteen units in nutrition.
Principles of learning as they relate to teaching foods and nutrition to adults. Organization of material; selection, use and evaluation of teaching techniques. (Formerly numbered Family Studies and Consumer Sciences 482.)

491. Research Literature in Foods and Nutrition (1)

Prerequisites: Nutrition 301, 302, 302L, and consent of instructor.
Current research topics in food science and nutrition. (Formerly numbered Family Studies and Consumer Sciences 491.)

496. Experimental Topics (1-4) I, II

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

510. Nutrition and Community Health (3)

Two lectures and three hours of activity.
Prerequisites: Nutrition 302 and 302L.
Nutritional problems in the community with consideration of their resolution. Field placement experience required. (Formerly numbered Family Studies and Consumer Sciences 510.)

596. Advanced Studies in Nutrition (1-6)

Prerequisite: Nine upper division units in nutrition.
Advanced study of selected topics. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of nine units of 596. No more than six units of 596 may be applied to either the bachelor's or master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES Refer to the Graduate Bulletin.

Oceanography

Administered by the Dean of the College of Sciences

OFFICE: Life Sciences Annex
TELEPHONE: (619) 594-5142

San Diego State University provides preparation for ocean-oriented careers by offering marine-related coursework and oceanographic experience within regular degree programs in the Departments of Biology, Chemistry, Economics, Civil and Mechanical Engineering, Geography, Geological Sciences, Natural Science, and Physics. Master's degrees with specialization in marine problems may also be earned in these departments. The Ph.D. degree is offered in biology, chemistry, and ecology, jointly with the University of California. Degrees in general oceanography or marine studies are not offered by the University. The Coastal and Marine Institute coordinates work in the area of marine studies and provides special supporting services to the faculty, staff and students, including student advising, assistance in research and publication, operation of the University's marine laboratory at Mission Bay, and a boat operations program.

Courses in general oceanography are offered by faculty from the Departments of Biology, Chemistry, Geological Sciences, and Natural Science. Advanced coursework and research in geological and physical oceanography are conducted in the Geological Sciences Department. An option in marine geology is offered as part of the undergraduate major in geological sciences, and the Chemistry Department offers work in chemical oceanography. Advanced courses and research in biological oceanography, marine biology, marine botany, and marine zoology are conducted in the Department of Biology. Similar marine-related coursework and research are offered in the Departments of Economics and Geography and in the College of Engineering. Students who require advising in these areas should inquire at the Coastal and Marine Institute. (See section of this catalog on Academic Organization, College of Sciences Research Centers.)

Oceanography Minor

Offered for undergraduate science students by the Department of Geological Sciences, the minor in oceanography consists of a minimum of 16 upper division units to include Biology 515 or 517; Geological Sciences 540, 545, 548; Oceanography 541.

The oceanography minor is intended for students with extensive background in the sciences. Oceanography 320 is not applicable toward the oceanography minor.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

UPPER DIVISION COURSES (Intended for Undergraduates)

320. The Oceans (3) I, II

Prerequisites: One introductory college course in a life science and one in a physical science, and completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Biological and physical aspects of the oceans and their significance to man; problems of modern oceanography.

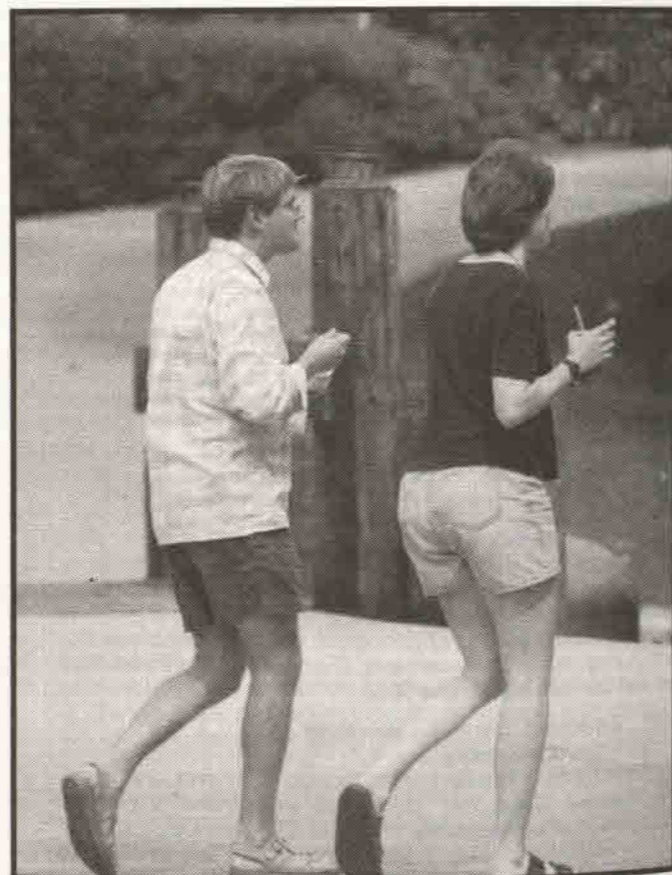
496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

541. Oceanography (3)

Prerequisites: Chemistry 200; Mathematics 121 and 122 or 150; Physics 180A or 195, 195L.



Multidisciplinary examination of the physical, chemical, biological and geological aspects of the marine environment and the relationship of man with the sea. Intended for science majors only.

561. Deep Sea Oceanography (3)

Prerequisites: Biology 515 and Chemistry 361A.

Concepts of deep sea oceanography including abyssal biology, physics and chemistry, instruments and methods of deep sea research, biogeochemistry of oceanic ridges, and high-pressure biochemistry.

For additional courses in Marine Studies see:

Biology 513. Marine Microbiology
Biology 514. Marine Plant Biology
Biology 515. Marine Invertebrate Zoology
Biology 517. Marine Ecology
Biology 519. Aquaculture
Biology 520. Ichthyology
Economics 454. Economics of the Ocean
Geography 504. Coastal and Submarine Physiography
Geography 510. Advanced Meteorology
Geography 588. Intermediate Remote Sensing of Environment
Geological Sciences 540. Marine Geology
Geological Sciences 545. Descriptive Physical Oceanography
Geological Sciences 548. Coastal and Estuarine Physical Oceanography

OFFICE: Adams Humanities 4142
TELEPHONE: (619) 594-5263

Faculty

Emeritus: Friedman, Howard, McClurg, Nelson, O'Reilly, Ruja, Shields, Snyder, Warren, Weissman

Chair: Weston

Professors: Carella, Feenberg, Rosenstein, Weston

Associate Professors: Chaffin, Troxell, Zupko

Offered by the Department

Master of Arts degree in philosophy.

Major in philosophy with the B.A. degree in liberal arts and sciences.

Minor in philosophy.

The Major

The philosophy major explores and seeks to understand values and the nature of reality. Through the study of philosophy, questions are asked about existence and experience: What is truth? What is morally right? What kind of life is best? What kind of society? Is there an ultimate reality? Philosophy studies the types of questions that most other subject areas are unable to address fully.

There are three different ways these questions are characteristically investigated in the philosophy major at San Diego State University. They are approached historically, by studying the history of philosophy from the ancient Greeks to the present; analytically, by carefully examining the meanings and interrelationships of ideas; and critically, by training students in the art of evaluating various claims and the arguments for and against them.

While the analytical and critical approach are part of every course in philosophy, the philosophy curriculum at San Diego State University emphasizes the historical approach. The aim is to provide the philosophy major with a thorough grounding in the development of philosophy so that the student is well prepared to participate in the discussion of contemporary issues.

The education of a philosophy major, along with providing the satisfaction of dealing with fundamental issues which have concerned serious thinkers for many centuries, also provides the student with skills that may be used in a variety of careers. Some students begin graduate work after their B.A., either in philosophy, with the expectation of teaching or writing in the field, or in law, education, or other professional programs. Some enter new fields of research, working on computer problems or artificial intelligence. Other students find that the special skills they have developed as philosophy majors - the ability to read complex material with comprehension, to analyze problems, to find relevant sources, to evaluate evidence, to propose solutions and to examine them self-critically, and to report the results of their inquiries with clarity and coherence - are valued by employers in many different fields. Such students may find career opportunities in government, industry, finance, and social services.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Philosophy

In the College of Arts and Letters

Philosophy Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15091)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in philosophy courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Six lower division units in philosophy including either Philosophy 110 or 120.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W or Rhetoric and Writing 305W or 500W with a grade of C (2.0) or better.

Major. A minimum of 30 upper division units in philosophy selected from Philosophy 330 or 333 or philosophy courses at the 400 and 500 level to include Philosophy 411, 412, 413, 414, and 521; completion of the requirements in any one of the four areas of specialization listed below and three to six units of electives in philosophy.

A. Current Issues: Twelve units to include three units from each of the following groups, with an additional three units from either Group I or Group II.

Group I: Philosophy 523, 525, 535, 537

Group II: Philosophy 512, 528, 532, 541

Group III: Philosophy 506, 507, 508, 543

B. Social and Political Philosophy: Philosophy 512, and six units selected from Philosophy 330, 333, 523, 527, 528, and 532.

C. Aesthetics and Philosophy of Literature: Nine units selected from Philosophy 508, 541, 542, and 543.

D. Philosophy of Science: Philosophy 537 and six units selected from Philosophy 523, 527, 531, and 536.

Philosophy Minor

The minor in philosophy consists of a minimum of 15-18 upper division units in philosophy. The student must complete the requirements in one of the following areas of specialization:

A. Aesthetics and Philosophy of Literature: Fifteen units to include 12 units selected from Philosophy 334, 508, 541, 542, 543; and three units of electives.

B. Applied Ethics: Eighteen units to include Philosophy 528 and 12 units selected from Philosophy 329, 330, 332, 333, 512; and three units selected from any upper division course in Philosophy or from Economics 370, General Studies 310, Journalism 500, Management 356, Natural Science 333, or Speech Communication 589.

C. History of Philosophy: Fifteen units to include Philosophy 411 and nine units selected from Philosophy 412, 413, 414, 506, 507, 575; and three units of electives.

D. Social and Political Philosophy: Fifteen units to include Philosophy 512, and nine units selected from Philosophy 330, 333, 527, 528, 532; and three units of electives.

E. Philosophy and Cognitive Science: Fifteen units to include Philosophy 521, 523, 531, 536; and three units of electives.

F. Philosophy of Science: Fifteen units to include Philosophy 537 and nine units selected from Philosophy 521, 523, 527; and three units of electives.

Courses

LOWER DIVISION COURSES

101. Introduction to Philosophy: Values (3) I, II (CAN PHIL 4)

Introduction to philosophical inquiry, with emphasis on problems of value. Students are encouraged to think independently and formulate their own tentative conclusions.

102. Introduction to Philosophy: Knowledge and Reality (3) I, II

Introduction to philosophical inquiry with emphasis on problems of knowledge and reality. Students are encouraged to think independently and formulate their own tentative conclusions.

103. Historical Introduction to Philosophy (3) I, II

Introduction to philosophical inquiry through study of the works of major philosophers in their historical contexts.

110. Critical Thinking and Composition (3)

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements and Africana Studies 120 or Linguistics 100 or Mexican American Studies 111B or Rhetoric and Writing 100. **Proof of completion of prerequisites required:** Test scores or verification of exemption; grade report or copy of transcript.

Introduction to critical thinking and writing. Evaluation and development of correct reasoning and effective style and organization in argumentative writing. Correct deductive and inductive reasoning. Fallacies. Critical appraisal of evidence. Construction of rebuttals and counter-arguments.

120. Formal Logic (3) I, II (CAN PHIL 6)

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.

Introduction to deductive and inductive logic. Logic and language. Analysis of fallacies. Uses of logic in science and in daily life.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

305. Classics of Western Philosophy (3)

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities.

Analysis of major texts selected from diverse historical periods in western philosophy. Texts will illustrate different world views (e.g., Platonism, Stoicism, Skepticism) and their relationship to other disciplines and to present world views.

310. Philosophy and Human Nature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Concept of human nature. Descriptive and normative aspects of major theories of human nature.

329. Social Ethics (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Ethical issues of contemporary life. Individualism vs. collectivism; democracy vs. dictatorship; ethical problems arising in law, medicine, business, government and interpersonal relationships.

330. Medical Ethics (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Value judgments upon which medicine is based and the ethical issues which medicine faces.

332. Environmental Ethics (3)

Prerequisite: Completion of General Education requirement in Foundations II.C., Humanities.

Development of traditional values concerning the natural environment. Reasons for altering values in light of modern changes in relationship of human beings to the environment. Application of ethical principles to actions affecting the environment.

333. Philosophy of Technology (3)

Prerequisite: Completion of General Education requirement in Foundations II.C., Humanities.

Nature of technology. Ethical aspects of social, political, and environmental problems associated with rapid development of technology over the last century. Responses to these problems by contemporary philosophers.

334. Philosophy of Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Study of literature of philosophical significance, and of philosophical problems of literature.

351. Chinese Philosophy (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Philosophical traditions which have shaped the intellectual life and culture of China. Emphasis on foundational texts surviving from pre-Han China.

411. Ancient Western Philosophy (3) I

Prerequisite: Three units in philosophy.

Ancient western philosophy through the third century A.D.

412. Medieval and Renaissance Philosophy (3) II

Prerequisite: Three units in philosophy.

European philosophy from the fourth century through the sixteenth century.

413. Seventeenth and Eighteenth Century European Philosophy (3) I

Prerequisite: Three units in philosophy.

European philosophy in the seventeenth and eighteenth centuries.

414. Nineteenth Century European Philosophy (3) II

Prerequisite: Three units in philosophy.

European philosophy in the nineteenth century.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisites: Six upper division units in philosophy and prior arrangements with a supervising instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

506. Twentieth Century Continental Philosophy (3)

Prerequisite: Six upper division units in philosophy.

Major figures and movements in European philosophy from Husserl to the present.

507. Twentieth Century Anglo-American Philosophy (3)

Prerequisite: Six upper division units in philosophy.

Major figures and movements in Anglo-American philosophy since World War I.

508. Existentialism (3)

Prerequisite: Six units in philosophy.

The philosophical aspects of existentialism. Major emphasis is on the diversity of thought within a common approach as this is shown in individual thinkers.

512. Political Philosophy (3)

Prerequisite: Philosophy 101, 102 or 103.

Selected aspects of the political structures within which we live, such as law, power, sovereignty, justice, liberty, welfare.

521. Deductive Logic (3)

Prerequisite: Philosophy 120.

Principles of inference for symbolic deductive systems; connectives, quantifiers, relations and sets. Interpretations of deductive systems in mathematics, science and ordinary language. Not open to students with credit in Mathematics 523.

523. Theory of Knowledge (3)

Prerequisite: Six units in philosophy.

The major theories of human knowledge: mysticism, rationalism, empiricism, pragmatism.

525. Metaphysics (3)

Prerequisite: Six units in philosophy.

Prominent theories of reality, e.g., realism and nominalism, materialism and idealism, teleology and determinism.

527. Values and Social Science (3)

Prerequisite: Six units in philosophy.

Analysis and discussion of the nature of values and value-judgment with particular reference to the social sciences. Among relevant issues: the naturalistic fallacy, facts and values; authoritarianism, emotivism, objective relativism; the individual and the community.

528. Theory of Ethics (3)

Prerequisite: Six units in philosophy.

Significant and typical value theories and systems and the concrete problems such theories seek to explain. Emphasis will be on moral values.

531. Philosophy of Language (3)

Prerequisite: Six units in philosophy.

An introduction to theories of meaning for natural languages and formal systems; concepts of truth, synonymy and analyticity; related epistemological and ontological problems.

532. Philosophy of History (3)

Prerequisite: Six units in philosophy.

The nature of history and historical inquiry. As metaphysics: A study of theories of historical development. As methodology: History as science, truth and fact in history, historical objectivity, the purpose of history.

535. Philosophy of Religion (3)

Prerequisite: Six units in philosophy.

Philosophical examination of issues raised by the religious impulse in man.

536. Philosophy of Mind (3)

Prerequisite: Three upper division units in philosophy.

Analysis of the concept of mind, intention, behavior, etc. Developments generated by works of such philosophers as Wittgenstein, Wisdom, and Ryle.

537. Philosophy of Science (3)

Prerequisite: Six units in philosophy.

The basic concepts and methods underlying contemporary scientific thought. Contributions of the special sciences to a view of the universe as a whole.

541. History of Aesthetics (3)

Prerequisite: Philosophy 101, 102 or 103.

Major documents in the history of aesthetics.

542. Philosophy of Art (3)

Prerequisite: Six units in philosophy.

The nature of aesthetic experience. Principal contemporary theories of art in relation to actual artistic production and to the function of art in society.

543. Philosophy and Literary Theory (3)

Prerequisites: Three upper division units in philosophy and three upper division units in literature.

Relations between philosophy and literary discourse. Strategies of interpretation offered by major contemporary thinkers.

575. A Major Philosopher (3)

Prerequisite: Six upper division units in philosophy.

The writings of one major philosopher. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units applicable to the major. Maximum credit six units applicable to a master's degree.

596. Selected Topics (3)

Prerequisite: Six upper division units in philosophy.

A critical analysis of a major problem or movement in philosophy. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to the major in philosophy. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

599. Special Study (1-3)

Prerequisite: Upper division or graduate standing and consent of instructor.

Directed individual study in philosophy on a theme or topic chosen in consultation with the instructor. Maximum credit six units. Maximum combined credit six units of Philosophy 599 and 798 applicable to the M.A. degree in Philosophy.

GRADUATE COURSES Refer to the Graduate Bulletin.

Physical Education

In the College of Professional Studies and Fine Arts

OFFICE: Physical Education 351
TELEPHONE: (619) 594-5541

Faculty

Emeritus: Andrus, Barone, Benton, Broadbent, Carter, Cave, Cullen, Fox, Friedman, Grawunder, Gutowski, Kasch, Landis, Olsen, A., Olsen, L., Phillips, Schutte, Schwob, Sportsman, Tollefsen, Wells, Wilhelm, Williamson, Ziegenfuss

Chair: Carlson

Professors: Aufesser, Buono, Carlson, Francis, P., King, McKenzie, Mechikoff, Moore, Rushall, Selder, Simmons, Sleet, Sucec

Associate Professors: Franz, Nichols-Bernhard, Patterson, Verity

Assistant Professors: Quinn, Smith, Whitby

Lecturer: Lebsack

Offered by the Department of Exercise and Nutritional Sciences

Master of Arts degree in physical education.

Master of Science degree in exercise physiology.

Major in physical education with the B.S. degree in applied arts and sciences.

Teaching major in physical education for the single subject teaching credential.

Adapted physical education credential.

Minor in physical education.

The Major

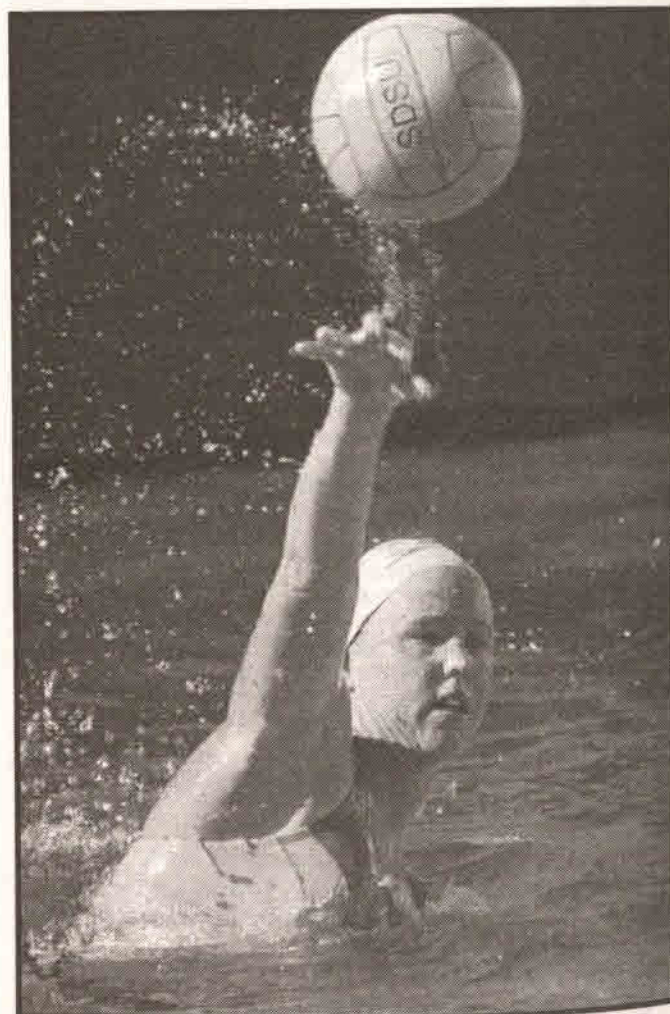
Physical education is a study of the processes through which individuals obtain optimal health, physical skill, and fitness. The physical educator, whether in a laboratory, school, medical or business setting, is ultimately concerned with improving the health and well-being of people.

The uniqueness of the academic area known as physical education is the study of human movement. The academic foundation for the study of human movement is covered by courses that explore movement as it affects and is affected by physiological, psychological, developmental, sociocultural, and mechanical parameters. Application of movement concepts evolves from an academic foundation and is covered by courses that study how movement is quantified, how learning experiences are sequenced to modify movement behaviors, and how movement is modified for special needs.

While many students think of physical education only as preparation for coaching and teaching, today's physical educator is prepared for a wide range of exciting career opportunities beyond the traditional paths. Some of the typical fields open to physical education majors include:

Athletic Training. The purpose of this specialization is to prepare students to meet the academic requirements necessary for a career in athletic training and completion of the degree requirements for national certification in athletic training. Athletic training specialists work in such diverse areas as injury prevention and rehabilitation, fitness testing, and as athletic trainers for sports teams. Students wishing to meet all requirements for national certification by the National Athletic Trainers Association must also complete a minimum two years clinical internship under the direct supervision of a certified athletic trainer. Students interested in completing an internship should meet with the undergraduate adviser in the department. Selection is competitive and limited in number. Applications are accepted in spring for fall selections.

Pre-Physical Therapy. This specialization prepares students to meet the academic requirements necessary for entry to postgraduate education for physical therapy, chiropractic, and podiatry. Students



find employment in a broad range of medical, commercial, and educational environments. Students wishing to meet all requirements for postgraduate education for a professional degree should meet with the undergraduate adviser as well as contact potential postgraduate education sites to obtain specific entry requirements.

Fitness and Health. Persons majoring in physical education often find employment in the private and public sectors concerned with the fitness and health of employees. This specialization prepares students to meet the academic requirements necessary to: (1) evaluate and program exercises for apparently healthy persons in diverse fitness and health settings, and (2) pursue certifications that reflect knowledge of the scientific principles that govern leadership in exercise and health enhancement programs. Physical education graduates work as fitness experts and managers in adult and corporate fitness programs of business, industry, public agencies, and schools. There are also career opportunities for employment in the business sector to include fitness clubs, cardiac rehabilitation, and human efficiency research.

Movement Studies. This program may be used by students as an undergraduate major for the B.S. degree in physical education when their degree objective is best served by an individualized program composed of courses from more than one specialization. The breadth of courses available to students in this program requires that each student meet with the Undergraduate Adviser to identify specific courses that best meet the program objectives.

Teaching. The graduate in physical education may find employment in public and private schools, specializing at either the elementary or secondary level. Physical education majors teach activities and sports skills, health and fitness classes, and act as physical education resource specialists. Students may also prepare for careers in athletic coaching. The athletic coach works to improve individual and team sports skills, enhance opportunities for social and personal development of team members, develop the health and fitness of participants, and promote public awareness concerning the benefits of sports participation. Opportunities for both men and women exist at the interscholastic level as well as with community and commercial sports clubs.

Physical Education Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 08351)

All candidates for a degree in applied arts and sciences must complete the requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Specialization in Athletic Training

Preparation for the Major. Physical Education activities (2 units), 104A or 104B, 210, 265, 265L; Biology 150, 202; Chemistry 130, 200; Information and Decision Systems 180; Nutrition 204; Physics 180A, 180B; Psychology 101, 270; Sociology 101; Speech Communication 103 and one of the following: Biology 215, Economics 201, Mathematics 119, Psychology 270, or Sociology 201. (47 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 49 upper division units to include Physical Education 301, 302, 303, 304, 305, 306, 307, 314, 363, 365, 366, 366L, 388 (1 unit), 401A, 401B, 461, 462, 463, 463L, 464; Biology 336. Biology 336 will also satisfy three units of the General Education requirement (IV.A). Recommended: Students should take Sociology 355 to satisfy the General Education requirement (IV.B).

Specialization in Pre-Physical Therapy

Preparation for the Major. Physical Education 104A or 104B, 210, 265, 265L; Biology 150, 201, 202; Chemistry 200, 201; Mathematics 121 or 150; Physics 180A, 180B, 182A, 182B; Psychology 101; Sociology 101; Speech Communication 103; and one of the following: Biology 215, Economics 201, Mathematics 119, Psychology 270, or Sociology 201. (50 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 39 upper division units to include Physical Education 301, 302, 303, 304, 305, 306, 307, 314, 363, 365, 388 (1 unit), 401A, 401B, 460; Biology 336, 436; Psychology 350. Biology 336 will also satisfy three units of the General Education requirement (IV.A.). Recommended: Students should take Sociology 355 to satisfy the General Education requirement (IV.B.).

Specialization in Fitness and Health

Preparation for the Major. Physical Education activities (2 units), Physical Education 104A or 104B, 210, 265, 265L; Biology 100, 100L, 150; Chemistry 100; Gerontology 101; Psychology 101; Sociology

101; Speech Communication 103; and three units selected from Biology 215, Economics 201, Mathematics 119, Psychology 270, or Sociology 201. (34 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 52 upper division units to include Physical Education 301, 302, 303, 304, 305, 306, 307, 314, 347A, 347B, 363, 365, 388 (1 unit), 401A, 401B, 412, 431, 432, 432L, 433; Biology 336; Community Health Education 301; Nutrition 311. Biology 336 will also satisfy three units of the General Education requirement (IV.A). Recommended: Students should take Sociology 355 to satisfy the General Education requirement (IV.B).

Specialization in Movement Studies

Preparation for the Major. Physical Education activities (2 units), Physical Education 104A or 104B, 210, 265, 265L; Biology 150; Psychology 101; Sociology 101; Speech Communication 103; and three units selected from Biology 215, Economics 201, Mathematics 119, Psychology 270, or Sociology 201. (23 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 48 upper division units to include Physical Education 301, 302, 303, 304, 305, 306, 307, 314, 347A, 347B, 401A, 401B; Biology 336; plus 18 upper division units selected from the following: Physical Education 348, 352A, 352B, 352C, 352D, 352E, 352F, 363, 365, 388 (1 unit), 412, 431, 432, 432L, 433, 441A, 441B, 441C, 441D, 442A, 442B, 445, 461. Biology 336 will also satisfy three units of the General Education requirement (IV.A). Recommended: Students should take Sociology 355 to satisfy the General Education requirement (IV.B).

Physical Education Major

For the Single Subject Teaching Credential
With the B.S. Degree in Applied Arts and Sciences
(Major Code: 08351)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education.

This major may be used by students in policy studies or teacher education as an undergraduate major for the B.S. degree in applied arts and sciences.

A minor or supplementary authorization is required. In conjunction with the department undergraduate adviser, a student must determine a specific course of study to establish a formal program for supplementary authorization. The program must be filed with the Office of Admissions and Records.

Elementary/Secondary

Preparation for the Major. Physical Education 210, 265, 265L; Biology 150; Psychology 101; Sociology 101; Speech Communication 103; and one of the following: Biology 215, Economics 201, Mathematics 119, Psychology 270, or Sociology 201. (20 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 51 upper division units to include Physical Education 301, 302, 303, 304, 305, 306, 307, 314, 335, 341, 347A, 347B, 348, 351, 401A, 401B, 441A, 441B, 441C, 442A, 442B, 445; Biology 336. Biology 336 will also satisfy three units of the General Education requirement (IV.A.). Recommended: Students should take Sociology 355 to satisfy the General Education requirement (IV.B.).

Adapted Physical Education Credential*

(Credential Code: 00980)

Admission Categories

Level I: Physical Education major with an interest in adapted physical education, completion of a minimum of 45 units with a GPA of 2.5 or better, and official application to the coordinator of adapted physical education.

Level II: Physical Education major with a minimum of 2.75 after 90 units including the completion of Physical Education 301, 303, 304, 348, 363 and at least one unit of Physical Education 388, 135 hours of practicum in school and community settings, and official application to the coordinator of adapted physical education.

Level III: Certified. Completion of all courses required for physical education major in the single subject teaching credential major, all classes for the certification including completion of the entire student teaching experience. (Preliminary credential.) The student must have a 3.0 average and no grade lower than C in all the academic classes required to be certified. A required course in which a grade lower than C is earned may be repeated only with prior approval of the coordinator.

Pre-Service Program

Candidates for this program in adapted physical education must complete the requirements for the single subject teaching credential in physical education, apply for the program, be accepted, and complete the following specialist coursework.

- Adapted Program: Minimum 16 units. Physical Education 348, 363, 398** (1 unit), 667, 672, and Special Education 501.
- Practical Experience and Student Teaching: The candidate must complete one unit of Physical Education 388, 135 hours of practicum in school and community settings, and a full-time student teaching experience in adapted physical education.

* Additional prerequisites required for this credential.

** Approved by Coordinator, Adapted Physical Education.

In-Service Program

Candidates for this program in adapted physical education must complete the requirements for the single subject teaching credential in physical education, apply for the program, be accepted, and complete the following specialist coursework.

- Adapted Program: Minimum of 16 units. Physical Education 348, 363, 398** (1 unit), 667, 672, and 684.
- Practical Experience and Student Teaching: The candidate must complete one unit of Physical Education 388, 135 hours of practicum in school and community settings, and a full-time student teaching experience in adapted physical education or equivalent experience.

* Additional prerequisites required for this credential.

** Approved by Coordinator, Adapted Physical Education.

Physical Education Minor

Coaching: The coaching of athletic teams is an integral part of the field of physical education. The physical education minor has been created for the purpose of allowing undergraduate students to study the scientific and technical bases of sport coaching. Completion of the minor will provide students with the qualifications for coaching in public and private schools, community athletic/sport programs, club sport programs, or other areas where coaching knowledge and experience is needed.

A minimum of 27 units to include Physical Education 210, 265, 265L, 301, 307, 351, 352 or 353 (2 units), 398 (3 units), Biology 150, Psychology 101; and one of the following: Biology 215, Economics 201, Mathematics 119, Psychology 270, or Sociology 201.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Types of Activity Courses

The department offers a wide variety of physical activity courses ranging from adapted physical education through intermediate level classes. The purpose of the physical activity program is to:

- Provide quality physical activity skill instruction at the beginning and intermediate levels in a wide variety of sport and dance activities.
- Provide a vehicle for vigorous physical activity in an instructional setting.
- Provide knowledge about various sport and dance activities.
- Provide knowledge about the value of physical activity as it relates to an improved quality of life.
- Provide opportunity for physical activity instruction to all segments of the student population, including those with temporary or permanent disabilities.

Courses**LOWER DIVISION COURSES**

Courses offered for one unit credit meet two hours per week or equivalent. "A" signifies a beginning class, "B" intermediate.

Dance activity courses: Ballroom Dance, Folk Dance, Ballet, Jazz Dance, Modern Dance. Refer to "Dance" in this section of the catalog.

100. Exercise and Health (3) I, II

Two lectures and two hours of activity.

Scientific bases of relationships between exercise and health and application of these principles to individual fitness appraisal and regimen.

102. Conditioning (1) I, II

(Formerly numbered Physical Education 102A.)

104A-104B. Weight Training (1-1) I, II, S**105. Individual Adaptives (1) I, II**

Prerequisite: Consent of instructor.

A health history record is required of each student.

Individual exercise programs for those who are handicapped in some respect, or who have functional defects or deficiencies amenable to improvement through exercise. May be repeated for credit.

108A-108B. Basketball (1-1) I, II**109A-109B. Soccer (1-1) I, II****110A-110B. Volleyball (1-1) I, II****111A-111B. Softball (1-1) I, II****115A. Track and Field (1) I, II****116A-116B. Golf (1-1) I, II****118A-118B. Tennis (1-1) I, II, S****119A-119B. Bowling (1-1) I, II****120A-120B. Badminton (1-1) I, II****123A-123B. Racquetball (1-1) I, II, S****124. Sailing (1)****125. Men's Gymnastics Apparatus (1)****127A-127B. Women's Gymnastics Apparatus (1-1) I, II****129A-129B. Swimming (1-1) I, II, S****129C. Advanced Swimming (1) I, II, S****130. Step Training (1) I, II, S****137A. Aerobic Dance (1) I, II, S****138. Selected Activities (1) I, II, S**

May be repeated with new activity for additional credit. See Class Schedule for specific content.

141A-141B. Martial Arts (1-1) I, II

Physical Education 141A is prerequisite to 141B.

145. Waterskiing (1) I, II, S**146. Surfing (1) I, II, S****147. Windsurfing (1) I, II, S****210. Introduction to Sport and Physical Education (2)**

Overview of discipline of physical education. Development of a basic philosophy and background for entering profession. (Formerly numbered Physical Education 276.)

212. Aerobic Dance Instructor Training (2)

One lecture and two hours of activity.

Basic preparation in theory and practice of teaching aerobic dance. Topics include science of flexibility, strength, and aerobic conditioning; fitness assessment; aerobic dance choreography; music selection; weight management; common injuries and their prevention; and legal issues.

241A. Physical Education of Children—Theory (1)

Prerequisite: Concurrent registration in Physical Education 241B.

Physical education of elementary school-aged children: Theoretical and scientific bases. Not open to physical education majors. (Formerly numbered Physical Education 241.)

241B. Physical Education of Children—Activities (1)

Two hours of activity.

Prerequisite: Concurrent registration in Physical Education 241A.

Physical education of elementary school-aged children: Activities and instruction. Not open to physical education majors. (Formerly numbered Physical Education 241.)

265. Techniques in Athletic Training (1)

Prerequisite: Biology 150.

Athletic training techniques and emergency field care of athletic injuries. Theory and techniques of basic athletic first aid, emergency procedures including CPR, bandaging and taping.

265L. Techniques in Athletic Training Laboratory (1)

Three hours of laboratory.

Prerequisite: Concurrent registration in Physical Education 265.

(Formerly numbered Physical Education 265.)

296. Experimental Topics (1-4) I, II

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

**UPPER DIVISION COURSES
(Intended for Undergraduates)****301. Physical Growth and Development (3)**

Prerequisite: Physical Education 210.

Principles of human growth; performance as affected by developmental levels and individual differences in structure and function. (Formerly numbered Physical Education 371.)

302. History and Philosophy: Physical Education and Sport (3)

Prerequisite: Physical Education 210.

Integrated approach to understanding of historical, philosophical, and sociological forces shaping development of physical education and sport. (Formerly numbered Physical Education 376.)

303. Applied Kinesiology (3)

Prerequisites: Physical Education 210 and Biology 150.

Arthrology, syndesmology and myology, with emphasis on movement analysis. Muscle groups and their functional relationships. Application of simple mechanical principles to movement analysis. (Formerly numbered Physical Education 560.)

304. Physiology of Exercise (3)

Prerequisites: Physical Education 210 or Nutrition 221, and Biology 336.

Effects of physical activities on the physiological functions of the body. (Formerly numbered Physical Education 561.)

305. Measurement and Evaluation in Physical Education (3)

Prerequisites: Physical Education 210 and one of the following: Biology 215, Economics 201, Mathematics 119, Psychology 270, or Sociology 201.

Testing and measurement for assessment and understanding of physical performance and for planning and evaluation of instruction in physical activity settings. Planning, implementation, and evaluation of tests. (Formerly numbered Physical Education 385.)

306. Biomechanics of Human Movement (3)

Prerequisites: Physical Education 210, Biology 150 and 336.

Mechanical principles as applied to movement; analysis and application to selected motor skills. (Formerly numbered Physical Education 563.)

307. Motor Learning and Performance (3)

Prerequisites: Physical Education 210, Psychology 101, and one of the following: Biology 215, Economics 201, Mathematics 119, Psychology 270, or Sociology 201.

Psychological parameters related to physical performance and the acquisition of motor skills. (Formerly numbered Physical Education 570.)

314. Exercise Physiology Laboratory (1)

Three hours of laboratory.

Prerequisites: Credit or concurrent registration in Physical Education 304.

Laboratory experiences in the application of exercises and the analysis of the results. (Formerly numbered Physical Education 362.)

320. Skin and Scuba Diving (2)

Prerequisites: Medical examination, waiver for hazardous procedures, pass swimming competency test. Concurrent registration in Physical Education 320L.

Function and knowledge of underwater diving to include diving physiology, hyperbaric conditions, medical hazards, safety procedures associated with scuba diving, proper care and operation of equipment. (Formerly numbered Physical Education 310.)

320L. Skin and Scuba Diving Laboratory (1)

Three hours of laboratory.

Prerequisite: Concurrent registration in Physical Education 320.

(Formerly numbered Physical Education 310L.)

323. Advanced Scuba Diving (2)

Prerequisites: Physical Education 321 or Openwater Scuba Certification, medical examination, and acceptable openwater diving equipment. Concurrent registration in Physical Education 323L.

Theory, skills, and technique including underwater navigation, diving physics, diving physiology, diving medicine, diving safety. Qualifies for Advanced Diving Certificate from the National Association of Underwater Instructors. (Formerly numbered Physical Education 312.)

323L. Advanced Scuba Diving Laboratory (1)

Three hours of laboratory.

Prerequisite: Concurrent registration in Physical Education 323.
(Formerly numbered Physical Education 312.)

324. Assistant Scuba Instructor (2)

Prerequisites: Physical Education 323 or Advanced Openwater Certification, medical examination, and acceptable openwater diving equipment. Concurrent registration in Physical Education 324L.

Qualifies for Assistant Scuba Instructor Certificate from the National Association of Underwater Instructors. (Formerly numbered Physical Education 313.)

324L. Assistant Scuba Instructor Laboratory (1)

Three hours of laboratory.

Prerequisite: Concurrent registration in Physical Education 324.
(Formerly numbered Physical Education 313.)

335. Basic Movement Skills (2)

Prerequisites: Physical Education 210 and 306.

Philosophy and practical application of educational gymnastics and dance; selection of music and step patterns needed for aerobic dance activities that are appropriate for primary school children.

341. Skill Competency in Physical Education (2) Cr/NC

Four hours of activity.

Prerequisite: Physical Education 306.

Skill and knowledge tests in basketball, volleyball, softball, tennis, badminton, soccer, and football. (Formerly numbered Physical Education 190.)

347A. Leadership for Physical Education (2)

Prerequisites: Physical Education 301, 305, 306. Concurrent registration in Physical Education 347B.

Theory and development of leadership behavior of physical educators, emphasizing leadership qualities unique to diverse physical activity settings. (Formerly numbered Physical Education 347.)

347B. Leadership for Physical Education Activity (1)

Two hours of activity.

Prerequisite: Concurrent registration in Physical Education 347A.
(Formerly numbered Physical Education 347.)

348. Special Physical Education (3)

Prerequisites: Physical Education 347A, 347B, and Psychology 101.

Etiologies, characteristics, education programs, and activities for individuals with non-physical disabilities (e.g. mentally retarded, learning disabled, etc.). (Formerly numbered Physical Education 568.)

351. Basic Coaching Theory (2)

Prerequisites: Physical Education 210, 265 and 265L.

Basic principles of coaching and conditioning for various sports. Defining actual physical and mental demands of a competitive activity. Coaching decisions concerning design of physical training programs for high school and club programs.

353. Coaching Elite Athletes (2)

Prerequisite: Physical Education 351.

Psychological and leadership factors and actions that are necessary to produce the best training and competitive performances in serious athletes.

352. Theory and Analysis of Coaching Competitive Sports (2)

Mechanical analysis, tactics, and strategy, scouting, officiating, and rules and daily-seasonal practice planning in one of the sports listed below.

A. Basketball

(Formerly numbered Physical Education 332A.)

B. Football

(Formerly numbered Physical Education 332B.)

C. Baseball

(Formerly numbered Physical Education 332C.)

D. Track and Field

(Formerly numbered Physical Education 332D.)

E. Volleyball**F. Additional sports (May be repeated with new content.)**

(Formerly numbered Physical Education 331F and 332E.)

363. Corrective Physical Education (3)

Prerequisites: Physical Education 303 and 304.

Etiology, characteristics, and programs for children with corrective and/or physically handicapping conditions. Includes evaluating and implementing prescribed activities for individuals with these types of conditions. (Formerly numbered Physical Education 567.)

365. Mechanisms of Sports Injuries (3)

Prerequisites: Physical Education 265, 265L, 303, 304, 306.

Pathomechanics and pathophysiology of soft tissue and bone injury as it relates to the identification and management of sport related injuries. (Formerly numbered Physical Education 564.)

366. Clinical Evaluation of Sports Injuries (2)

Prerequisites: Physical Education 365. Concurrent registration in Physical Education 366L.

Theoretical and practical experiences in the clinical evaluation of sports injuries with emphasis on techniques and procedures. (Formerly numbered Physical Education 565.)

366L. Clinical Evaluation of Sports Injuries Laboratory (1)

Three hours of laboratory.

Prerequisite: Concurrent registration in Physical Education 366.

Theoretical and practical experiences in the clinical evaluation of sports injuries with emphasis on techniques and procedures. (Formerly numbered Physical Education 565.)

388. Adapted Physical Education Laboratory (1-4)

Three hours of laboratory per unit.

Prerequisite: Credit or concurrent registration in Physical Education 348 or 363.

Supervised clinical experience working in the adapted physical education laboratory setting on campus with individuals with disabilities. Maximum credit four units. (Formerly numbered Physical Education 368.)

389. Practicum in Athletic Training (1-3)

Three hours of laboratory per unit.

Prerequisites: Physical Education 265 and 265L.

Practical training and clinical applications of basic and advanced techniques of athletic training and sports medicine. Athletic first aid, emergency procedures, bandaging, taping, use of physical therapy modalities, and application of therapeutic exercises to be performed in actual athletic medicine clinics. Maximum credit six units. (Formerly numbered Physical Education 369.)

397. Contemporary Topics in Physical Education (Credit to be arranged) (Offered only in Extension)

Prerequisites: Consent of instructor; bachelor's degree.

Study of specially selected problems in physical education and sport. Does not apply to undergraduate degrees or credentials.

398. Supervised Field Experience (1-3) Cr/NC I, II, S

Prerequisite: Consent of department chair.

Supervised practical experience in the area of physical education. Maximum credit six units.

401A. Musculo-Skeletal Fitness (1)

Prerequisites: Physical Education 104A or 104B or 341; Physical Education 304, 306, and 314.

Training techniques in areas of strength and flexibility. Examination of facilities and equipment, mechanics of strength and flexibility techniques, development of training program, basic physiology and review of current research in areas of strength and flexibility. (Formerly numbered Physical Education 361.)

401B. Musculo-Skeletal Fitness Activity (1)

Two hours of activity.

Prerequisites: Concurrent registration in Physical Education 401A. Circularepiratory endurance, muscular strength and endurance, selection and care of equipment and facilities, and programs in the areas of flexibility, weight training and aerobics. (Formerly numbered Physical Education 361.)

412. Leading Group Aerobic Exercise (1)

Two hours of activity.

Prerequisites: Physical Education 303, 304, 314.

Teaching group aerobic exercise including aerobic dance, step training, circuit training, and interval training. Students design and lead aerobic, strength, and flexibility segments of a group of aerobic exercise class.

431. Administration of Exercise and Fitness Program (2)

Prerequisites: Physical Education 303, 304, 314.

Administration and management of corporate, private, university-based, and hospital-based exercise programs.

432. Exercise, Fitness, and Health (2)

Prerequisites: Physical Education 303, 304, 305, 314, Health Science 301. Concurrent registration in Physical Education 432L.

Exercise testing, programming and leadership for healthy persons of different ages, capacities, and needs.

432L. Exercise, Fitness, and Health (1)

Three hours of laboratory.

Prerequisite: Concurrent registration in Physical Education 432.

Practicum in exercise testing, programming and leadership for healthy persons of different capacities, and needs.

433. Exercise, Sport, and Aging (3)

Prerequisites: Physical Education 301 and 304.

Relationships between exercise, sport and human aging including physiological, psychological, sociological, health and program considerations. Aging is viewed developmentally with emphasis on the middle and later years. (Formerly numbered Physical Education 569.)

441. Practicum: Physical Education Activities (2)

Four hours of activity.

Prerequisites: Physical Education 306, 341.

Selection and care of equipment and facilities; analysis of skill; progression for skills; drills and the game; lead-up activities; safety; performance cues; terminologies; skill evaluations; tactics and strategies.

A. Racquet Sports

(Formerly numbered Physical Education 345G.)

B. Indoor Sports

(Formerly numbered Physical Education 345A.)

C. Field Games

(Formerly numbered Physical Education 345H.)

D. Gymnastics

(Formerly numbered Physical Education 345F.)

442A. Physical Education for Elementary Schools (2)

Prerequisites: Physical Education 335, 347A and 347B.

Objectives, curricula, activities, and application of basic scientific principles for the conduct of elementary school physical education. (Formerly numbered Physical Education 340.)

442B. Physical Education for Elementary Schools Activity (1)

Two hours of activity.

Prerequisite: Concurrent registration in Physical Education 442A.
(Formerly numbered Physical Education 340.)

445. Organization and Administration of Physical Education (3)

Two lectures and two hours of activity.

Prerequisite: Physical Education 347A.

Organization of physical education programs in the public schools. Includes curriculum development, program content, legal bases, materials, facilities and constraints in the discipline of physical education. (Formerly numbered Physical Education 380.)

460. Professional Issues (1) Cr/NC

Prerequisite: Senior standing in pre-physical therapy specialization.

Current issues relevant for one preparing to enter a therapy profession.

461. Sport Psychology (3)

Prerequisite: Physical Education 307.

Psychological factors underlying behavior in sport and physical activity. Emphasis on personality and motivational factors. (Formerly numbered Physical Education 571.)

462. Therapeutic Modalities for Sports Injuries (3)

Prerequisite: Physical Education 365.

Theories and techniques for the design, implementation, evaluation, and application of rehabilitation modalities. (Formerly numbered Physical Education 574.)

463. Principles and Techniques in Therapeutic Exercise (2)

Prerequisites: Physical Education 365. Concurrent registration in Physical Education 463L.

Design and application of therapeutic exercise programs for athletic injuries. (Formerly numbered Physical Education 575.)

463L. Principles and Techniques in Therapeutic Exercise Laboratory (1)

Three hours of laboratory.

Prerequisites: Physical Education 365. Concurrent registration in Physical Education 463.

(Formerly numbered Physical Education 575.)

464. Pathomechanics of Athletic Injuries (3)

Prerequisite: Physical Education 365.

Pathology and mechanics associated with common sports injuries. Signs and symptoms related to cause of injury. Common treatment and interventions.

496. Experimental Topics (1-4) I, II

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II, S

Prerequisite: Consent of department chair.

Individual study. Maximum credit six units.

**UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)****585. Quantitative and Computer Methods in Physical Education (2)**

Prerequisite: Biology 215, Economics 201, Mathematics 119, Psychology 270, or Sociology 201.

Analysis of large physical education and exercise science data sets. Methods for understanding characteristics of data sets.

586. Experimental Methods in Physical Education (2)

Prerequisite: Physical Education 585.

Experimental methods and designs in research literature of physical education.

596. Selected Topics in Physical Education (1-3) I, II

Selected topics in physical education. May be repeated with new content and approval of instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's or master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

**GRADUATE COURSES
Refer to the Graduate Bulletin.**

Physics

In the College of Sciences

OFFICE: Physics 131
TELEPHONE: (619) 594-6240

Faculty

Emeritus: Garrison, Moe, Nichols, Smith, Teasdale, Wolter
Chair: Lilly
Professors: Burnett, Cottrell, Davis, Day, Feher, Goldberg, Lilly, Morris, Oseroff, Papin, Piserchio, Rehfuess, Roeder, Shore, Sweedler, Templin, Torikachvili
Associate Professor: Wallace
Lecturers: Ferguson, Shackelford
Adjunct: Mueller

Offered by the Department

Master of Arts degree in physics.
Master of Science degree in physics.
Master of Science degree in radiological health physics.
Major in chemical physics with the B.S. degree in applied arts and sciences.
Major in physics with the B.A. degree in liberal arts and sciences.
Major in physics with the B.S. degree in applied arts and sciences.
Minor in physics.

The Major

The study of physics is considered the center of modern science. It has fascinated the finest minds of every age – from Newton to Maxwell, Einstein, Bohr, Schrodinger, Oppenheimer and Schwinger. The study of this diverse field encompasses such areas as optics, electricity, magnetism, the properties of the solid state, atomic structure, nuclear structure, motion, relativity, space and time. Physics also plays a significant role in chemistry, biology, astronomy, and geology, and in the applied sciences of engineering and technology.

Students who become physics majors will be selecting a rewarding and vital career. The great burst of activity during the last 20 years has instilled a new excitement in physics. For example, the invention of the laser in the late 1950s revolutionized the field of optics. These advances stimulated whole new areas in physics applications. Superconductivity has led to the search for a high-temperature superconductor so that electrical power might be transmitted without loss; quantum mechanical tunneling has led to the tunnel diode; and solid state physics brought about the transistor and its successors.

The career opportunities for physics graduates are as diverse as the field itself. They include research and development; management or administration in industrial laboratories or government agencies; technical sales; electronic design; laser instrument research; and secondary teaching.

Physics graduates may also enter a wide variety of graduate programs. For example, a radiological health physics master's degree qualifies students for employment with the Environmental Protection Agency, nuclear power stations, government laboratories, hospitals, Department of Energy, and the Nuclear Regulatory Commission.

Chemical Physics Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 19081)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Individual master plans for each student are filed with the physics and chemistry undergraduate advisers and the Office of Admissions and Records.

A minor is not required with this major.

Preparation for the Major. Physics 195, 195L, 196, 196L, 197, 197L; Chemistry 200, 201, 231, 251; Mathematics 150, 151, and 252 (44 units)

Recommended: A course in computer programming.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 45 upper division units to include Physics 311, 350, 354A-354B, 357, 400A-400B; Chemistry 410A-410B, 431, 457, 520A, 550; Mathematics 342A-342B. Recommended: Mathematics 342C.

Physics Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 19021)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Individual master plans for each student are filed with both the physics undergraduate adviser and the Office of Admissions and Records. No more than 48 units in physics courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Physics 195, 195L, 196, 196L, 197, 197L; Chemistry 200, 201; Computer Science 106; Mathematics 150, 151, 252. (38 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to the section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 33 upper division units to include Physics 311, 317, 350, 354A-354B, 357, 400A-400B, 460; Mathematics 342A, 342B.

Physics Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 19021)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Individual master plans for each student are filed with both the physics undergraduate adviser and the Office of Admissions and Records.

A minor is not required with this major.

Preparation for the major and the major consist of basic requirements in the lower and upper division for all students plus additional upper division requirements in one of the following areas: (a) Foundations; (b) Scientific Instrumentation; (c) Modern Optics; (d) Condensed Matter.

Basic Requirements for all Students

Preparation for the Major. Physics 195, 195L, 196, 196L, 197, 197L; Chemistry 200, 201; Computer Science 106; Mathematics 150, 151, and 252. (38 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 42-45 upper division units to include Physics 311, 317, 350, 354A-354B, 357, 400A-400B, 460, 498A, 498B; Mathematics 342A, 342B.

Areas of Specialization

In addition to the basic requirements, the student must complete the requirements in one of the following areas:

(a) Foundations

Required: A minimum of nine units selected from Physics 406, 510, 532, 542, 552, 564, 570, or Mathematics 524, 532, 533, 541, 542.

(b) Scientific Instrumentation

Required: Physics 513, 516.

(c) Modern Optics

Required: Physics 406, 552, 553.

Recommended: Physics 516, 532, 554.

(d) Condensed Matter

Required: Physics 510, 532, 533.

Recommended: Physics 534.

(e) Computational Physics

Required: Physics 516, 580, and Computer Science 575 or Mathematics 541.

Recommended: Computer Science 205.

Physics Minor

The minor in physics consists of a minimum of 15 units in physics to include 12 upper division units in physics (excluding Physics 301 and 305). Courses selected must follow an integrated and coherent pattern of coursework. Courses must be approved by the Physics Department undergraduate adviser and be selected from one of the following areas:

Foundations of Physics
Scientific Instrumentation
Modern Optics
Radiological Physics
Computational Physics
Condensed Matter

Courses

LOWER DIVISION COURSES

Maximum credit 15 units for any combination of Physics 107, 180A-180B, 182A-182B, 195, 195L, 196, 196L, 197, 197L.

103. Conceptual Physics (3)

Physics as natural philosophy. How physical theories grow and change through interaction with experiment. Holography, black holes, fusion, acoustics, lasers, and other topics form a framework through which the laws of physics and their philosophical and historical foundations are explored.

107. Introductory Physics with Laboratory (4) I, II

Three lectures and three hours of laboratory.
Prerequisite: Fulfillment of the SDSU Mathematics Competency requirement.

How physics concepts describe everyday events, and frontier phenomena. Classical mechanics, thermodynamics, electromagnetism, and selected topics from atomic, relativistic, and radioactivity physics. Not open to students with credit in Physics 170, 180A-180B, 195, 195L, 196, 196L, 197, 197L.

149. Special Study (1-2) I, II

Prerequisite: Consent of supervising instructor.
Individual study and laboratory work in the area of the student's major interest. Each student will be assigned a member of the staff who will supervise his work. Maximum credit two units.

170. Preparation for Physics (3)

Prerequisite: Two years of high school algebra.

Elemental principles of physics approached from problem-solving and critical thinking perspectives necessary for success in Physics 180A and Physics 195. Not open to students with credit in a college level physics course. (Formerly numbered Physics 190.)

180A-180B. Fundamentals of Physics (3-3) I, II

Prerequisite: Credit or concurrent registration in Mathematics 121 or 150. Physics 180A is prerequisite to 180B.

Recommended: For Physics 180A, concurrent registration in Physics 182A; for Physics 180B, concurrent registration in Physics 182B.

Course provides a thorough basis in mechanics, electricity, magnetism, optics, and modern physics in a two-semester calculus-based sequence. Intended mainly for life science majors. Physics 180A not open to students with credit in Physics 195. Physics 180B not open to students with credit in Physics 196.

182A-182B. Physical Measurements (1-1) I, II

Three hours of laboratory.

Prerequisite for 182A: Credit or concurrent registration in Physics 180A.

Prerequisite for 182B: Credit or concurrent registration in Physics 180B.

A laboratory course to accompany Physics 180A-180B. Semester I: Properties of matter, mechanics, sound, and wave motion. Semester II: Electricity, DC circuits, oscilloscope measurement techniques, electric and magnetic fields, and optics. 182A: Not open to students with credit in Physics 195L. 182B: Not open to students with credit in Physics 196L.

195. Principles of Physics (3) I, II (195 + 195L: CAN PHYS 8)

Prerequisites: High school physics or a grade of C or better in Physics 190. Credit or concurrent registration in Mathematics 150.

This course is designed to give a thorough understanding of the fundamental principles of physics in the areas of mechanics and wave motion.

195L. Principles of Physics Laboratory (1) I, II (195 + 195L: CAN PHYS 8)

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Physics 195.
Experiments in mechanics, wave motion, resonance phenomena using precision air tracks. Not open to students with credit in Physics 182A.

196. Principles of Physics (3) I, II (196 + 196L: CAN PHYS 12)

Prerequisites: Physics 195, credit or concurrent registration in Mathematics 151.

This course is designed to give a thorough understanding of the fundamental principles of physics in the areas of electricity and electric and magnetic fields.

196L. Principles of Physics Laboratory (1) I, II (196 + 196L: CAN PHYS 12)

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Physics 196.
Experiments in DC circuits, AC circuits, electrical resonance, oscilloscope measurement techniques, and electric and magnetic fields. Not open to students with credit in Physics 182B.

197. Principles of Physics (3) I, II (197 + 197L: CAN PHYS 14)

Prerequisites: Physics 196; credit or concurrent registration in Mathematics 252.

This course is designed to give a thorough understanding of the fundamental principles of physics in the areas of wave motion, electromagnetic waves, optics, special relativity and atomic and nuclear physics.

197L. Principles of Physics Laboratory (1) I, II
(197 + 197L: CAN PHYS 14)

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Physics 197.

Experiments in optics, lasers, holography, and nuclear counting.

201. Physics of Sound, Hearing, and Speech (4)

Three lectures and three hours of laboratory.

Prerequisite: Qualification on the Mathematics Departmental Placement Examination, Part IA.

Fundamental nature of sound and applications to hearing and speech.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)**301. Energy and the Environment (3)**

Prerequisite: Completion of the General Education requirements in Communication and Critical Thinking and Foundations II.A., Natural Sciences and Quantitative Reasoning.

Fundamental physical concepts underlying energy, its conversion, and impact on the environment.

305. Quantum Reality - From Quarks to Quasars (3)

Prerequisite: Completion of the General Education requirements in Communication and Critical Thinking and Foundations II.A., Natural Sciences and Quantitative Reasoning.

Universe viewed from small (elementary particles) to very large (cosmology) with emphasis on structural aspects of physical theories of universe and how they came to be formed.

311. Electronics for Scientists (4) I, II

Three lectures and three hours of laboratory.

Prerequisites: Physics 180B and 182B, or 196 and 196L.

AC and DC circuits, diodes, transistors, conventional and operational amplifiers, analog to digital conversion, pulse and digital electronics. Introduce science majors to modern electronic devices and their utilization in scientific instrumentation.

317. Introduction to Computational Physics (2)

Six hours of laboratory.

Prerequisites: Physics 197 and Mathematics 342A.

Numerical methods applied to a variety of physics topics. Use of computers to solve and plot problems involving differential equations, matrices, root finding, numerical integration.

350. Classical Mechanics (3) I, II

Prerequisites: Physics 197, 197L and credit or concurrent registration in Mathematics 342A.

Newtonian mechanics, wave motion, Lagrange's equations, Hamilton's equations, generalized coordinates, normal coordinates, small oscillations, special theory of relativity.

354A-354B. Modern Physics (3-3) I, II

Prerequisites: Physics 354A: Physics 197, 197L and credit or concurrent registration in Mathematics 342A. Physics 354B: Physics 354A and credit or concurrent registration in Mathematics 342B.

Semester I: Atomic theory of matter, introduction to quantum theory with applications to atomic structure. Semester II: Atomic theory, periodic table, techniques of quantum mechanics. Applications of quantum mechanics to solid state and nuclear physics.

357. Advanced Physical Measurements (3) I, II

One lecture and six hours of laboratory.

Prerequisites: Physics 197, 197L and Physics 311.

A course which stresses both laboratory experiments and techniques of data and error analysis. The experiments are taken from several of the major areas of physics.

400A-400B. Classical Electromagnetism (3-3)

Prerequisites: Physics 400A: Physics 197, 197L and credit or concurrent registration in Mathematics 342B. Physics 400B: Physics 400A.

Electrostatics, magnetostatics, electromagnetic induction, Maxwell's equations, radiation and wave propagation.

406. Optics (3)

Prerequisites: Physics 197, 197L; Mathematics 342A.

Reflection, refraction, matrix methods, dispersion, polarization, double refraction, interference, diffraction, Fourier optics, coherence theory, lasers, and holography with applications to optical instruments, wave propagation, and the nature of light.

460. Thermal Physics (3)

Prerequisite: Physics 354A.

Classical thermodynamics and statistical mechanics. Applications of equilibrium thermodynamics. Introduction to statistical mechanics, including concepts from probability and statistics. Maxwell-Boltzmann, Fermi-Dirac, and Bose-Einstein statistics. Applications of statistical mechanics in calculating macroscopic properties of simple systems.

496. Selected Topics in Physics (1-4) I, II

Prerequisite: Consent of instructor.

Selected topics in classical and modern physics. May be repeated with consent of instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

498A. Senior Research (1) Cr/NC I, II

One discussion period and two additional hours per week to be arranged.

Prerequisite: Senior standing in physics and an acceptable plan for graduation within one year.

Selection and design of individual research project. Oral and written progress reports.

498B. Senior Research (2) I, II

Two discussion periods and four additional hours per week to be arranged.

Prerequisite: Physics 498A.

Laboratory work, progress reports, oral and written final reports.

499. Special Study (1-3) I, II

Individual study or laboratory work on a special problem in physics selected by the student. Each student will be assigned a member of the staff who will supervise his/her work. Credit, hours and topics to be arranged in each case. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)**510. Quantum Mechanics (3)**

Prerequisites: Physics 350, 354B, and Mathematics 342B.

The mathematical and physical foundations of the quantum theory in terms of Schrodinger's wave mechanics. Applications to the properties of atoms, quantum chemistry, and nuclei.

513. Electronic Instrumentation (3)

One lecture and six hours of laboratory.

Prerequisites: Physics 311. Recommended: Credit or concurrent registration in Physics 516.

Computer data acquisition and control, modern signal detection and enhancement techniques; transducer principles and applications; noise and the enhancement of the signal-to-noise ratio.

516. Theory of Scientific Instrumentation (3)

Prerequisites: Physics 311 and Mathematics 342B.

Fourier analysis with applications to scientific instrumentation, spectroscopy, and image processing; Z transforms and digital filtering; detection systems and their optimization of the signal-to-noise ratio. (Formerly numbered Physics 516A.)

532. Solid State Physics (3)

Prerequisites: Physics 350, 354B, and Mathematics 342B.

Elastic, thermal, electric, magnetic and optical properties of solids. Introduction to the energy band theory of solids, with applications to semiconductors and metals.

533. Experimental Techniques in Condensed Matter Physics (3)

One lecture and six hours of laboratory.

Prerequisite: Credit or concurrent registration in Physics 532.

Experiments in various fields of condensed matter such as x-ray diffraction, Hall effect, superconductivity, and electron paramagnetic resonance.

534. Colloquium in Condensed Matter Physics (1) Cr/NC

Prerequisite: Credit or concurrent registration in Physics 532.

Student and faculty research project presentations. Maximum credit three units.

542. Acoustics (3)

Prerequisites: Physics 350 and Mathematics 342B.

Wave motion, production, reception, transmission and analysis of sound. Special applications such as environmental noise, underwater and seismic waves.

552. Modern Optics and Lasers (3)

Prerequisites: Physics 406 with minimum grade of C; credit or concurrent registration in Physics 400B; Mathematics 342B.

Electromagnetic theory, matrix methods of optics, propagation of Gaussian beams, optical resonators, interaction of radiation and atomic systems, theory of laser oscillation, nonlinear optics, specific laser systems, optical detectors, applications of lasers in physics.

553. Modern Optics Laboratory (3)

One lecture and six hours of laboratory.

Prerequisites: Physics 357 with minimum grade of C; Physics 406 with minimum grade of C; credit or concurrent registration in Physics 552.

Experiments in various fields of modern optics such as holography, physics of lasers, Fourier transform spectroscopy, Raman spectroscopy, light modulation techniques, fiber optics, spatial filtering, diffraction grating spectroscopy, radiometry, and nonlinear optics.

554. Colloquium in Optics Research (1) Cr/NC I, II

Prerequisites: Concurrent registration in Physics 498A or 498B or 797 and consent of instructor.

Student and faculty research project presentations. Maximum credit three units.

560. Radiological Physics and Dosimetry (3)

Prerequisite: Credit or concurrent registration in Physics 354A.

Ionizing radiation fields, interactions of radiation with matter, cavity theory, external radiation dosimetry.

561. Nuclear Instrumentation (3)

Two lectures and three hours of laboratory.

Prerequisites: Credit or concurrent registration in Physics 311 and 560.

Electronics of nuclear instrumentation. Radiation detection and measurement using ionization chambers, GM and proportional counters, and scintillation dosimetry. Practices of current use in the radiation protection field.

564. Nuclear and Elementary Particle Physics (3)

Prerequisite: Physics 354B.

Nuclear and elementary particle phenomena including nuclear structure of reactions, nuclear devices, elementary particle symmetry and structure, and experimental methods.

570. Relativity (3)

Prerequisites: Physics 354A, 400B, and Mathematics 342B.

Relative coordinates, Lorentz transformation, covariant formulation of the laws of physics, applications of special relativity, introduction to curved space time, cosmology.

580. Computational Physics (3)

Prerequisites: Physics 354B, 400A, Computer Science 106, Mathematics 342B.

Computer programming for the numerical solution of problems in classical mechanics, electromagnetism, optics, and quantum mechanics. Use of Unix operating system and Fortran programming language. Incorporation of standard subroutines for linear algebra and differential equations into student written programs.

596. Special Topics in Physics (1-4) I, II

Prerequisite: Consent of instructor.

Selected topics in classical and modern physics. May be repeated with the consent of the instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Policy Studies in Language and Cross-Cultural Education

In the College of Education

OFFICE: Education 152
TELEPHONE: (619) 594-5155

Accredited by the California Commission on Teacher Credentialing.

Faculty

Chair: Kuhlman
Professors: Espinosa, Kuhlman, Ochoa, Pacheco
Assistant Professors: Moheno, Young
Lecturer: Alfaro

Offered by the Department

Master of Arts degree in education.
Multiple subject bilingual cross-cultural language and academic development credential (BCLAD) emphasis: Spanish.
Single subject bilingual cross-cultural language and academic development credential (BCLAD) emphasis: Spanish.
Bilingual cross-cultural specialist credential.
Cross-cultural language and academic development (CLAD) certificate.

The Major

The Policy Studies Department offers programs leading toward the Bilingual Cross-Cultural Language and Academic Development (BCLAD) credential for single and multiple subject (secondary and elementary), as well as the more advanced CLAD Certificate and the Bilingual Specialist Credential.

Multiple Subject Bilingual Cross-Cultural Language and Academic Development Credential (BCLAD) Emphasis: Spanish

(Credential Code: 00200)

The Multiple Subject Bilingual Cross-Cultural Language and Academic Development credential (BCLAD) emphasis: Spanish is available to students interested in teaching in a bilingual elementary school classroom. This credential authorizes the holder to teach in any self-contained bilingual or regular classroom in which one teacher is responsible for all the subjects commonly taught in the elementary schools. Because courses on methods of teaching subject areas are taught in Spanish as well as English, candidates must pass the Spanish Language Proficiency and Cultural Awareness Examination given by the department.

Candidates who will pursue this credential need to specify "Multiple Subject Bilingual Cross-Cultural Language and Academic Development (BCLAD) emphasis: Spanish" in the application for admission to SDSU.

Standards for Admission

- CBEST.** Students must pass the California Basic Educational Skills Test prior to admission to the BCLAD credential program. This examination is required by the Commission on Teacher Credentialing. Booklets containing registration forms and test information are available from the Test Office in SS-2549 (594-5216).
- Major.** The Liberal Studies major, Emphasis in Education, Foreign Language Specialization may be selected in preparation for the teaching credential. Students who have academic majors other than liberal studies are required to pass the commission-approved PRAXIS, Multiple Subject Assessment for Teachers (MSAT). Information may be obtained through advisers in the Policy Studies in

Language and Cross-Cultural Education Department, ED-152, and registration materials are available through the Center for Careers in Education, ED-100.

3. Prerequisite Courses.

Policy Studies in Language and Cross-Cultural Education 515	3 units
Education 451	3 units
Linguistics 420*	3 units
Linguistics 452*	3 units
Linguistics 550	3 units
Mathematics 210**	3 units
Physical Education 241A, 241B	2 units
Art or Drama or Music - Art 100, 101, 157; Drama 105; Music 102	3 units

* Linguistics 420 and 452 are requirements for the Liberal Studies major.

** With approval of the mathematics adviser, any of the following mathematics courses may be substituted for Mathematics 210: Mathematics 121, 150, 312.

- Grade Point Average.** Candidates must have cumulative grade point averages (GPAs) within the upper one-half of undergraduate students in the candidates' majors. GPAs vary according to discipline and graduating institution. GPA requirements are available in the Center for Careers in Education, ED-100. Candidates are required to submit official transcripts from all colleges and universities attended and unofficial SDSU transcripts for GPA calculations.

- Letters of Recommendation.** Three letters of recommendation must be submitted attesting to the applicants following characteristics: (a) attitude, aptitude and ability to teach children; (b) personality and character; (c) academic ability. At least one letter should be from an elementary school teacher the student has worked with and the others may be from faculty and administrators.

- Tuberculin Clearance.** Evidence of a negative tuberculosis test (these tests are valid for four years and must be in effect during the time that candidates are enrolled in the credential program). Clearance statements may be secured from Health Services, private physicians or HMOs, or public health agencies.

- Early Field Experience.** A minimum of 60 hours in a typical elementary classroom with supervision within the five years preceding admission.

- Oral English and Written Statement.** Have an interview with the admissions committee of the PLC Department and write, under supervision, a statement of professional goals and philosophy.

- California Certificate of Clearance.** This certificate represents a background clearance and check conducted by the State Department of Justice and Federal Bureau of Investigation. Turnaround time for the clearance can take as long as eight months. Possessors of K-12 California credentials may satisfy this requirement by submitting copies of those certificates. In lieu of the actual Certificate of Clearance or copy of a credential, candidates may submit their clearance application packets and fees concurrently with program applications.

- Credential Advising Appointment.** Each applicant must meet with a faculty adviser to plan an appropriate program, which includes a minimum of 31 units as defined by the Commission on Teacher Credentialing. Make appointment in ED-152, telephone 594-5155.

- Language and Culture.** Passage of the Spanish Language Proficiency and Cultural Awareness Examination prior to entering the credential program. Please call 594-5155 for test date.

- Application.** Applicants should complete application procedures the semester prior to beginning the credential program.

New Students Who Seek to Complete a Credential

Teachers with preliminary credentials who are working toward clear credentials may have programs designed to fit their individual backgrounds. Evaluations of college credit and arrangements for programming should be made through the Center for Careers in Education, ED-100; telephone 594-5964.

Advanced Standing in Policy Studies in Language and Cross-Cultural Education

A student transferring into San Diego State University with advanced standing must complete a minimum of six units of professional education work in residence at this university in order to obtain a recommendation for a credential, regardless of the extent of education work completed elsewhere.

Evaluation of Credits

After an interval of five years, prerequisites and courses in education are reevaluated and subject to reduction in credit, in light of new requirements and changes in educational procedures. All courses taken either at this university or elsewhere must be approved by an official adviser in order to be credited toward meeting credential requirements or pattern requirements for a degree.

Program*	Units
PLC 910 Teaching Mathematics to Bilingual Elementary Students	3
PLC 911 Teaching Social Studies to Bilingual Elementary Students	2
PLC 912 Teaching Science to Bilingual Elementary Students	2
PLC 923 Psychological Foundations of Education and Bilingual Students	3
PLC 931 Skills in Teaching Reading to Bilingual Elementary Students	3
PLC 932 Teaching Spanish Language Arts to Bilingual Elementary Students	3
PLC 960 Student Teaching Seminar for Bilingual Elementary Students	2-3
PLC 961 Student Teaching for Bilingual Elementary Students	1-12

* Contact department for details.

Preliminary Credential Requirements

- A bachelor's degree (or higher) with any major other than education.
- Completion of an approved program of professional education. (See Department of Policy Studies in Language and Cross-Cultural Education for further information.)
- Passage of PRAXIS Examination, Multiple Subject Assessment for Teachers (MSAT) or approved waiver program (Liberal Studies major, Emphasis in Education).

- Passage of the Spanish Language Proficiency and Cultural Awareness Examination.
- Demonstrated knowledge of principles and provisions of United States Constitution through successful completion of three-unit college level course or examination. Courses are listed in General Catalog section on "Graduation Requirements," IV. American Institutions Requirement, C.3.b.
- Passage of California Basic Educational Skills Test (CBEST).

NOTE: Undergraduate students in their final semester prior to obtaining a baccalaureate degree may sign up for concurrent post-baccalaureate credit as explained in the section of this catalog on "General Regulations."

Clear Credential Requirements

- Completion of an approved fifth year program (a minimum of 30 upper division or graduate-level postbaccalaureate units).
- Coursework/fieldwork to satisfy PL 94-142: Needs of, and methods of providing educational opportunities to individuals with exceptional needs (mainstreaming). (Teacher Education 526.)
- Coursework/training in computer literacy (Educational Technology 470).
- Knowledge of health education in California, including substance abuse and nutrition: CHE 101 or 320 and verification of CPR competency.

Single Subject Bilingual Cross-Cultural Language and Academic Development Credential (BCLAD) Emphasis: Spanish

(Credential Code: 00100)

The Single Subject Bilingual Cross-Cultural Language and Academic Development credential (BCLAD) emphasis: Spanish is available to students interested in teaching in a bilingual secondary school classroom. This credential authorizes the holder to teach in any self-contained bilingual or regular classroom in which one teacher is responsible for teaching the given subject area.

Candidates who will pursue this credential need to specify "Single Subject with Bilingual Cross-Cultural Language and Academic Development credential (BCLAD) emphasis: Spanish" in the application for admission to SDSU.

Standards for Admission

- CBEST.** Students must pass the California Basic Educational Skills Test (CBEST) prior to admission to the Single Subject Bilingual Emphasis credential program. This examination is required by the Commission on Teacher Credentialing. Booklets containing registration forms and test information are available from the Test Office in SS-2549 (594-5216).
- Subject Matter Competency.** Students must verify competency in a specified single subject area through a university assessment process which consists of reviewing coursework for completion of an approved teaching major or its equivalent at San Diego State University or another approved California teacher-training institution, passing scores on the appropriate PRAXIS examinations, or a combination of coursework and examination scores. Competency will be assessed and verified by subject matter departments at SDSU. Requirements for the various single subject majors are listed with the academic majors in the General Catalog. Candidates may offer passing NTE/CAPA scores taken between January, 1990 and August, 1993 to verify subject matter competency provided those scores will still be valid at the time of recommendation for certification.
Test scores submitted for verification of subject matter competency are valid for five years from the date of the examination. Information and registration materials for the current PRAXIS examinations are available at the Center for Careers in Education,

ED-100. Students who have completed approved waiver programs at other universities must still be assessed by SDSU subject matter departments prior to admission to this University's credential program.

3. Prerequisite Courses:

ED 451	Introduction to Multicultural Education	3 units
LING 420	Linguistics and English	3 units
PLC 400	The Secondary School and Bilingual Education	3 units
PLC 515	Bilingual Teaching Strategies	3 units

4. Grade Point Average. Candidates must have cumulative grade point averages (GPAs) within the upper one-half of undergraduate students in the candidates' majors. GPAs vary according to discipline and graduating institution. GPA requirements are available in the Center for Careers in Education, ED-100. Candidates are required to submit official transcripts from all colleges and universities attended and unofficial SDSU transcripts for GPA calculations.

5. Letters of Recommendation. Three letters of recommendation must be submitted attesting to the applicant's following characteristics: (a) attitude, aptitude and ability to teach children; (b) personality and character; (c) academic ability. At least one of these letters should be from a school teacher with whom the student has worked and the others may be from faculty and administrators.

6. Tuberculin Clearance. Evidence of a negative tuberculosis test (these tests are valid for four years and must be in effect during the time that candidates are enrolled in the credential program). Clearance statements may be secured from Health Services, private physicians or HMO's, or public health agencies.

7. Early Field Experience. Applicants must provide evidence of a minimum of 45 hours of experience with students in typical classroom settings within the last five years. Such evidence consists of a description and evaluation of the experience by a supervisor.

8. Oral English and Written Statement. Interview with the admissions committee of the PLC Department and write, under supervision, a statement of professional goals and philosophy.

9. California Certificate of Clearance. This certificate represents a background clearance and check conducted by the State Department of Justice and Federal Bureau of Investigation. Turn-around time for the clearance can take as long as eight months. Possessors of K-12 California credentials may satisfy this requirement by submitting copies of those certificates. In lieu of the actual Certificate of Clearance or copy of a credential, candidates may submit their clearance application packets and fees concurrently with program applications.

10. Credential Advising Appointment. Each applicant must meet with a faculty adviser to plan an appropriate program, which includes a minimum of 31 units as defined by the Commission on Teacher Credentialing. Appointments can be made in ED-152, telephone 594-5155.

11. Language and Culture Examination. All candidates must pass the Spanish Language Proficiency and Cultural Awareness Examination. Call 594-5155 for test date.

12. Application. Applicants should complete application procedures the semester prior to beginning the credential program.

New Students Who Seek to Complete a Credential

Teachers with preliminary credentials who are working toward clear credentials may have programs designed to fit their individual backgrounds. Evaluations of college credit and arrangements for programming should be made through the Center for Careers in Education, ED-100; telephone 594-5964.

Evaluation of Credits

After an interval of five years, prerequisites and courses in education are reevaluated and subject to reduction in credit in light of new requirements and changes in educational procedures. All courses taken either at this university or elsewhere must be approved by an official adviser in order to be credited toward meeting credential requirements or pattern requirements for a degree.

Program		Units
Prerequisites		
ED 451	Introduction to Multicultural Education	3
LING 420	Linguistics and English	3
PLC 400	The Secondary School and Bilingual Education	3
PLC 515	Bilingual Teaching Strategies	3
First Semester		
PLC 924	Behavioral and Psychological Aspects of Teaching in the Bilingual Classroom	3
PLC 933	Skills in Teaching Reading to Bilingual Secondary Students	3
PLC 954	Humanistic and Social Aspects of Teaching in the Bilingual Classroom	3
PLC 963	Student Teaching for Bilingual Secondary Students I	3-4
LING 496	Language Issues in the Secondary School	3
TE 914	Teaching and Learning in the Content Area: Major	3
Second Semester		
PLC 903	Bilingual Student Teaching Seminar	3
PLC 914	Teaching and Learning in the Content Area: English Language Development/Spec. Des. Instr. in English	3
PLC 964	Student Teaching for Bilingual Secondary Students II	9-12

Preliminary Credential Requirements

1. A bachelor's degree with one of the approved single subject majors listed in the School of Teacher Education single subject teaching credential catalog section. Credentials can be granted only in the designated single subject credential areas.
2. Completion of an approved program of professional education. (See Department of Policy Studies in Language and Cross-Cultural Education for further information about the approved programs.)
3. MAJOR ADVISER'S RECOMMENDATION. Passage of subject matter examination(s) or waiver thereof through completion of one of the approved single subject credential majors listed below with a written recommendation from the Ryan major adviser.
 - Art: Art
 - Business: Accounting, Finance, Information Systems, Management, Marketing
 - English: Comparative Literature, Drama, English, Journalism, Linguistics, Speech Communication
 - Foreign Languages: Classics (Latin), French, German, Russian, Spanish
 - *Science: Biology, Physical Science
 - Mathematics: Mathematics
 - Music: Music
 - Physical Education: Physical Education
 - *Social Science: Social Science

*These programs are in the process of being revised. See department.

Candidates applying for the Single Subject Credential program after August 31, 1995 who have not satisfied subject matter competency through coursework or PRAXIS examination(s), must take and pass a new set of examinations for the Single Subject Credential in seven areas: biology[#], chemistry[#], English, geoscience[#], mathematics, physics[#], and social science. Candidates for the science authorizations (noted with #) must also take and pass a general science examination. Candidates should check with the Center for Careers in Education, ED-100, to clarify the appropriate means for satisfaction of the subject matter competency requirement.

4. Passage of the Spanish Language Proficiency and Cultural Awareness Examination.
5. Demonstrated knowledge of principles and provisions of United States Constitution through successful completion of three-unit college level course or examination. Courses are listed in General Catalog section on "Graduation Requirements," IV. American Institutions Requirement, C.3.b.
6. Passage of California Basic Educational Skills Test (CBEST).

NOTE: Undergraduate students in their final semester prior to obtaining a baccalaureate degree may sign up for concurrent post-baccalaureate credit as explained in this catalog.

Clear Credential Requirements

1. Completion of an approved fifth year program (a minimum of 30 upper division or graduate-level postbaccalaureate units).
2. Knowledge of health education in California, including substance abuse and nutrition, Community Health Education 320 and verification of current CPR competency.
3. Coursework/fieldwork to satisfy PL 94-142: Needs of, and methods of providing educational opportunities to individuals with exceptional needs (mainstreaming) (TE 526).
4. Demonstrated knowledge of computer hardware, software, and applications to education/classroom use (computer literacy): Educational Technology 470.

Cross-Cultural Language and Academic Development (CLAD) Certificate

The Cross-Cultural Language and Academic Development (CLAD) Certificate provides an interdisciplinary approach in linguistics and policy studies to prepare credentialed teachers in theory and application of English Language Development (ELD) and Specially Designed Academic Instruction in English (SDAIE) methodology for linguistically diverse students in grades K-12.

- A. Prerequisites: Linguistics 420 or 520.
- B. Certificate Requirements:
 1. Twelve units including: Policy Studies in Language and Cross-Cultural Studies 602, 653; Linguistics 552; Policy Studies in Language Cross-Cultural Studies 651 or Linguistics 550.
 2. Six units of foreign language at the college level or equivalent.
 3. Completion of program with a 3.0 grade point average.
- C. Candidates who hold valid basic K-12 teaching credentials will also be able to apply directly to the Commission on Teacher Credentialing for the state's CLAD Certificate for public school service.

Apply in the Policy Studies Department, ED 152 or call 594-5155 for more information.

Courses

UPPER DIVISION COURSES (Intended for Undergraduates)

397. Problems in Education (Credit to be arranged) I, II (Offered only in Extension)

Prerequisite: Consent of instructor.

Class study of specially selected problems in education. Does not apply to pattern requirements for credentials. Credit earned in this course not applicable to a bachelor's degree.

400. The Secondary School and Bilingual Education (3) II

Prerequisite: Upper division standing.

Bilingual education at the secondary levels, including roles, curricular models, organization, and legal justification. Must demonstrate bilingual competencies before conclusion of course and admission to program. Taught in Spanish.

496. Experimental Topics (1-4) I, II

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

515. Bilingual Teaching Strategies (3)

Legal and historical developments leading to bilingual teaching in the United States. Interactive and individualized techniques appropriate for bilingual students. Language assessment methods for grouping and evaluating bilingual students. Fieldwork required. May be taught in Spanish.

552. Teaching Writing in Multilingual Settings (3)

Methodologies in teaching primarily expository writing to students from various language backgrounds, focusing on skills such as those needed to avoid syntactic, semantic and stylistic language interference.

553. Oral Language Assessment Techniques (3)

Theoretical and applied linguistics; language functions in the bilingual classroom; implications of sociolinguistics for diagnosis and classification of bilingual children; analysis and application of language assessment instruments; comparison of diverse linguistic systems associated with different cultures.

596. Special Topics in Bilingual and Multicultural Education (1-3)

Prerequisite: Consent of instructor.

Selected topics in bilingual, cross-cultural education and policy studies. See Class Schedule for specific content. Maximum credit of six units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES Refer to the Graduate Bulletin.

Political Science

In the College of Arts and Letters

OFFICE: Nasatir Hall 127
TELEPHONE: (619) 594-6244

Faculty

Emeritus: Crain, Feierabend, Gripp, Janssen, Joy, Kahng, Padgett
Chair: Miles
Professors: Anderson, Andrain, Conniff, Heck, Hofstetter, Johns, Little, Loveman, Miles, Schultze, Soule, Strand, Terrell
Associate Professors: Fairlie, Hobbs, Keiser, Lewin
Assistant Professor: Callender

Offered by the Department

Master of Arts degree in political science.
Major in political science with the B.A. degree in liberal arts and sciences.
Minor in political science.

The Major

Political science is the study of governments. Its concerns, however, are not limited to formal governmental institutions such as the executive and legislative branches or the justice systems. Political science is also interested in other organizations and activities which are part of the process of government, including political parties, interest groups, and the press.

Students who become political science majors will learn about who creates the rules by which people are governed, the attitude and behavior of leaders and members of the public which cause certain decisions to be made, and how these decisions affect such values as liberty, equality, welfare, and justice. Political science is concerned with contemporary public affairs, problems in other political systems and contemporary international politics, as well as with historical growth, evolution, and decline of various types of governments.

The many career opportunities which might be available to political science graduates include teaching at the secondary level; positions with the federal government in areas such as intelligence, foreign affairs, environmental protection, and budget and computer administration; positions with state and local governments, including administrative aide for a city manager, staff assistant for a county supervisor, and assistant to the registrar of voters; administrative positions on the staffs of national, state, and local legislators; claims adjuster or claims representative; statistical technician; marketing researcher; lobbyist for a business or trade organization; political reporter; and title office trainee.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser in order to declare or change to the major.

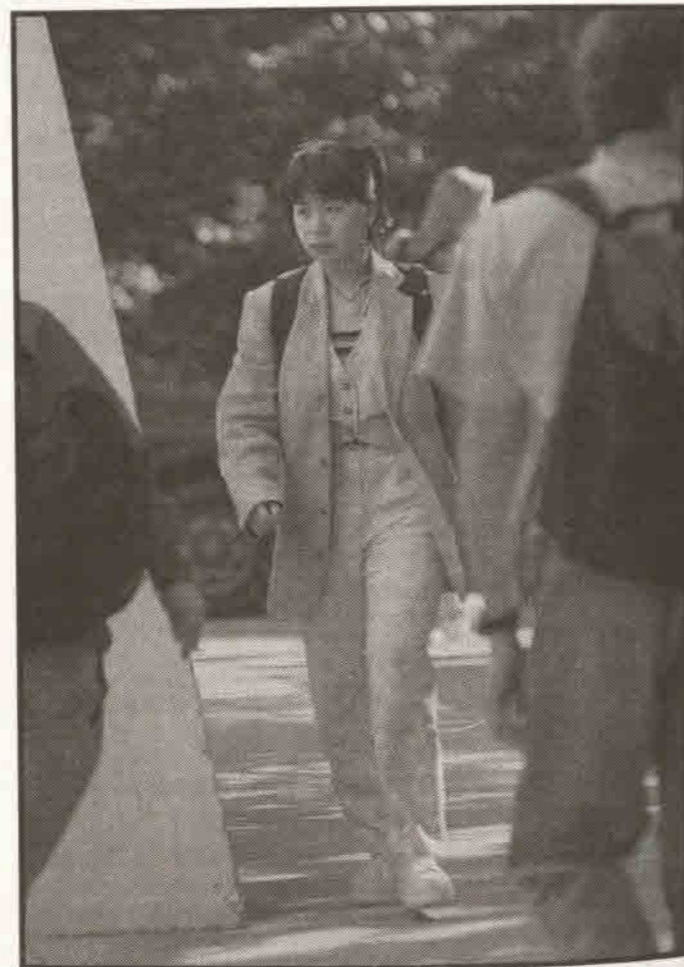
Political Science Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22071)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in political science courses can apply to the degree.

Students majoring in political science must complete a minor in another field to be approved by the chair of the major department.

Preparation for the Major. Political Science 101, 102, 103 and three units of either statistics or logic. (12 units)



Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or Anthropology 396W, History 430W, Rhetoric and Writing 305W or 500W, or Sociology 396W with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units to include (a) three units in Political Science 495, 497 or 498, and (b) 21 upper division units in political science distributed among at least four of the fields listed below, provided that at least three units shall be taken in Field I.

Field I: Political Theory. Courses numbered 301A to 305, 403 to 406, and 515A-515B.

Field II: American Government and Politics. Courses numbered 321 to 338, 422 to 436, and 530 to 537.

Field III: Public Law. Courses numbered 346 to 348 and 454.

Field IV: Comparative Politics. Courses numbered 356 to 370 and 555 to 568.

Field V: International Politics. Courses numbered 375 to 393, 478 to 482, and 575 to 577.

Political Science Minor

The minor in political science consists of a minimum of 18 units in political science to include Political Science 101 and either 102 or 103; twelve of the 18 units must be in upper division courses and at least nine of these units must be selected from one of the following subject matter areas:

- Political Theory (Field I)
- Politics and Public Law (Fields II and III)
- Comparative Politics and International Politics (Fields IV and V)

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

101. Introduction to Politics and the American Political System (3) I, II

Basic political concepts as applied to the American political system. The American political system as a constitutional democracy with reference to specific topics. When taken with Political Science 102 will satisfy graduation requirement in American Institutions.

102. Introduction to American and California Government and Politics (3) I, II

Political processes and institutions in the United States and California. Considers a variety of public policy issues such as environmental quality, health, education, relation between government and business, taxation, and foreign affairs as reflected in the dynamics of national and state politics. When taken with Political Science 101 will satisfy graduation requirement in American Institutions. Not open to students with credit in Political Science 320.

103. Introduction to Comparative Government (3) I, II

Analytical models and techniques for examination of the problems of decision making and control in various political systems. Emphasis on patterns of political action in various cultural contexts.

201. Elementary Statistics for Political Science (3) I, II

Prerequisites: Course in intermediate algebra; Political Science 101 and 102; satisfaction of the Entry-Level Mathematics requirement; and qualification on the Mathematics Departmental Placement Examination, Part IA.

Quantitative methods in political science. Tabular and graphic presentation, measures of central tendency, simple correlation and sampling techniques. Students with credit or concurrent registration in the following lower division statistics courses will be awarded a total of four units for the two (or more) courses: Biology 215, Economics 201, Engineering 140, Mathematics 119, 250, Political Science 201, Psychology 270, and Sociology 201.

227. Film and Politics (1) Cr/NC

Prerequisite recommended: Political Science 102.
Popular motion pictures analyzed from perspective of political content. Thematic implications concerning power, justice, social change, and revolution. Construction of alternative political realities present in popular media.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

310. Politics and the Arts (3)

Prerequisites: Political Science 101 and 102.
The contribution of the artistic media to the activity and understanding of politics.

495. Internship in Local Politics (3) I, II

Prerequisites: Limited to senior political science majors; three upper division units within Field II.

Senior majors choose internships within San Diego County in government agencies, offices of elected officials, or others approved by instructor. Requires 160 hours of fieldwork and extensive, analytical term paper.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

497. Investigation and Report (3) I, II

Prerequisite: Limited to senior political science majors.
Senior thesis. Analysis of special topics.

499. Special Study (1-3) I, II

Prerequisites: Twelve upper division units in political science and consent of the instructor.
Individual study. Maximum credit six units.

Field I: Political Theory

UPPER DIVISION COURSES (Intended for Undergraduates)

301A-301B. History of Western Political Thought (3-3)

Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors. Political Science 301A is prerequisite to 301B.

Development of political ideas from the Golden Age of Greece until the French Revolution. Relevance of theory to a critical understanding of concrete political and social problems involving power, freedom, equality, justice and action. 301A emphasizes Plato, Aristotle, Augustine, Aquinas, and Marsilius of Padua. 301B stresses major political theorists such as Machiavelli, Hobbes, Locke, and Rousseau.

302. Modern Political Thought (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Major writers of political thought in the last two centuries, including Burke, J.S. Mill, Freud, Marx, Weber and Sartre. The following topics may be covered: conservatism, liberalism, utilitarianism, socialism, fascism, positivism and existentialism.

305. American Political Thought (3)

The origin and development of American political ideas from colonial times to the present. Meets the graduation requirement in the United States Constitution. When taken with Political Science 320, 321 or 422, will also satisfy graduation requirements in American Institutions.

403. Socialist Political Thought (3)

Socialist thought from a historical perspective. (Formerly numbered Political Science 303.)

406. Democracy and Mass Society (3)

Origin and development of theories of democracy and application of democratic ideas to contemporary political life. (Formerly numbered Political Science 306.)

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

515A-515B. Research Methods in Political Science (3-3)

Prerequisite: Political Science 201. Political Science 515A is prerequisite to 515B.

The research process, from research design through data processing, analysis and interpretation. Problems of application to election statistics, census data, roll call records, sample survey data and biographical information.

Field II: American Government and Politics

UPPER DIVISION COURSES
(Intended for Undergraduates)

320. American Institutions (3) I, II

The principles of the Constitution of the United States of America, and a survey of the political and social institutions which have developed under the Constitution. Meets the graduation requirement in the United States Constitution and California state and local government. When taken with Political Science 305, 321 or 422, will also satisfy graduation requirements in American Institutions. Not open to students with credit in Political Science 102.

321. State Politics (3)

Politics and policy making at the state and local levels, relations among national, state, and local governments. Emphasis on California problems and politics. Meets the graduation requirement in California government. When taken with Political Science 305 or 320, will also satisfy graduation requirements in American Institutions.

334. Politics of the Environment (3)

Analysis of political process as it shapes environmental policy in a world characterized by finite resources. Emphasis on expanding national and international claims made upon these resources. May include a substantial amount of material about foreign political systems.

335. Public Policy (3)

Prerequisite: Political Science 101 and 102.

Theory and practice of process of formulating public policy; roles of administrators, legislators, courts, interest groups, and political parties; public agencies and public interest; case studies in formulating public policies. May include a substantial amount of material about foreign political systems.

338. The Legislative Process (3)

A detailed analysis of legislatures. Special attention will be devoted to the impact of dynamic factors on formal procedures. May include a substantial amount of material about foreign political systems.

422. Urban Politics (3)

Prerequisite: Political Science 101 or 102.

The processes by which social conflicts in American urban areas are represented and regulated. Urban political culture; ecology; group development and activity; power structures; and reform movements are surveyed. The character of the urban political "problem" and proposed solutions are evaluated. Meets graduation requirement in California state and local government. When taken with Political Science 305 or 320, will also satisfy all requirements in American Institutions. (Formerly numbered Political Science 522.)

425. Political Behavior (3)

Prerequisites: Political Science 102.

Social and attitudinal variables in political behavior. Quantitative research data as used in electoral studies. May include a substantial amount of material about foreign political systems. (Formerly numbered Political Science 325.)

426. Political Communication (3)

Communication as a political process; the effects of political communication on individuals and groups. May include a substantial amount of material about foreign political systems. (Formerly numbered Political Science 326.)

436. The American Presidency (3)

Prerequisites: Political Science 101 and 102.

Analysis of principal institutions, functions and problems of the presidency and federal executive branch. Attention given to presidential leadership, staffing, executive-legislative relations and policy formation. (Formerly numbered Political Science 536.)

498. Internship in National Politics (9)

Prerequisites: Three upper division units within Field II and consent of instructor.

Students will be assigned to political agencies in Washington, D.C., such as congressional staffs, interest groups, executive agencies, legal/judicial offices and political party committees. Maximum credit three units applicable to the major or minor in political science.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

530. Political Parties (3)

Prerequisite: Political Science 102 or 320.

The political party as a part of the process of government; party organization and activities; nominating and campaign methods; theories and functions of the party system; party responsibility. The functioning of political parties in the American political system. May include a substantial amount of material about foreign political systems.

531. Interest Groups and Political Movements (3)

Prerequisite: Political Science 101 or 102.

Pressure group activity, lobbies, mass movements; factors which explain origins and motivations of group behavior; votes, money, information, protest as political resources; theories of pluralism, power elite and mass society; class and ethnic politics. May include a substantial amount of material about foreign political systems.

537. The Politics of Bureaucracy (3)

Prerequisites: Political Science 101 and 102.

An analysis of the bureaucracy as an actor in the political system. May include a substantial amount of material about foreign political systems.

Field III: Public Law

UPPER DIVISION COURSES
(Intended for Undergraduates)

346. Law and the Political System (3)

Forces influencing the making of law; relationship between social and legal change; nature and limits of the judicial function. (Formerly numbered Political Science 546.)

347A-347B. American Constitutional Law (3-3)

Substantive principles of American constitutional law. Rights and liberties protected by the Constitution against action of federal and state governments. May include problems of judicial review, federal system, separation of powers, nature of selected congressional-presidential powers. Satisfies graduation requirement in United States Constitution. (Formerly numbered Political Science 547A-547B.)

348. The Supreme Court and Contemporary Issues (3)

Recent decisions of the Supreme Court of the United States and their relationship to contemporary political and social issues. Not open to those students with credit for Political Science 347A-347B.

454. Special Problems in Public Law (3)

Prerequisites: Political Science 101 and 102, and three upper division units within Field III.

Exploration of selected issues in the field of law. (Formerly numbered Political Science 354.)

Field IV: Comparative Politics

UPPER DIVISION COURSES
(Intended for Undergraduates)

356. Governments of Continental Europe (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

The political systems of countries of western continental Europe.

357. Government of England (3)

The structure and functioning of the English parliamentary system with emphasis on present-day political principles and parties.

359. Government and Politics of Russia and the Commonwealth (3)

Contemporary developments in Russia and states of former Soviet Union. Focus on Gorbachev era and post-Gorbachev transformations of political, economic, and social systems.

361. Governments and Politics of the Developing Areas (3)

Prerequisites: Political Science 101 or 103; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Internal political systems, governmental structures and the foreign policies of developing nations.

362. Governments and Politics of East Asia (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

The internal political structure and foreign policies of China, Japan and Korea.

363. Governments and Politics of the Middle East (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

The governmental and political structures of representative states in the Middle East including Turkey, Israel and the Arab states.

364. Political Change in Modern Africa (3)

Dynamics of social and political change in modern Africa.

370. Political Violence (3)

Prerequisites: Political Science 101, 102 or 103; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Underlying conditions, expressions and consequences of violence within political systems.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

555. Comparative Political Systems (3)

Prerequisite: Political Science 103.

An examination of selected political and governmental systems for purposes of comparative study and analysis to determine similarities, differences and general patterns and universals among political systems.

560. Comparative Public Policy (3)

Prerequisite: Political Science 103 or 335.

Ways that political and social factors shape policy choices, implementation strategies, and policy outcomes in selected countries, emphasis on industrialized nations. Policy areas chosen from: education, health, nutrition, crime, transportation, housing, energy, population control, poverty, unemployment, inflation.

562. Government and Politics of Japan (3)

Prerequisite: Political Science 103 or 362.

Governmental structures, political processes, and public policies of Japanese political system. Recent political history and cultural factors which shape Japanese politics. Japanese foreign policies, especially the Japan-United States relationship.

566. Political Change in Latin America (3)

Prerequisite: Political Science 101 or 103.

General pattern of politics and political development in Latin America with an emphasis on those features which condition domestic and foreign policy making.

567. Political Systems of Latin America (3)

Prerequisite: Political Science 566.

Domestic and international politics of selected Latin American states.

568. The Mexican Political System (3)

Prerequisite: Political Science 101 or 103.

Principal factors in Mexican governmental decision making. Ideology, political groups, tactics of leaders and governmental structure.

Field V: International Politics

UPPER DIVISION COURSES
(Intended for Undergraduates)

375. International Relations (3)

Dynamics of conflict and cooperation among national, international and transnational actors; contributing political, economic, and social factors.

390. Dynamics of Modern International Crises (3)

Origins, development and control of selected international crises since World War II.

393. Institute on World Affairs (3)

Contemporary problems in international relations. May be repeated once for credit with permission of the instructor. See Class Schedule for specific content.

478. Conduct of American Foreign Relations (3)

Institutional arrangements by which American foreign policy decisions are formulated and implemented. Issues confronted by American foreign policy decision makers. (Formerly numbered Political Science 378.)

479. National Security Policy (3)

Objectives, instruments, and consequences of national security policy. (Formerly numbered Political Science 379.)

481. International Relations of the Developing Nations (3)

Prerequisite: Six units of political science.

Cooperation and conflict between the developing nations and relations of such nations with the developed countries. (Formerly numbered Political Science 381.)

482. International Relations of the Latin American States (3)

The foreign policies of the Latin American states; the Organization of American States; relationships with the United Nations and with the United States. (Formerly numbered Political Science 382.)

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

575. International Relations of the Pacific Rim (3)

Prerequisite: Political Science 362 or 375 or 482.

Dynamics of conflict and cooperation among nations of the Pacific Rim. Stress on political and economics factors that shape interstate relations.

577. Principles of International Law (3)

The function of law in the international community. The historical development of the ideas and rules of international law and their place in the modern diplomatic and legal structure.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Portuguese

In the College of Arts and Letters

OFFICE: Business Administration 403
TELEPHONE: (619) 594-6588

Faculty

Chair: Wilson
Professor: Silverman

Offered by the Department of Spanish and Portuguese Languages and Literatures

Minor in Portuguese.
Courses in Portuguese.
Major work in Portuguese is not offered.

Portuguese Minor

The minor in Portuguese consists of a minimum of 15-17 units in Portuguese, six units of which must be in upper division courses. Recommended: History 552.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Portuguese to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Portuguese 301 or the equivalent level of achievement. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. **Four years** of high school level language count as the equivalent of three college semesters, thus fulfilling the foreign language requirement.

Courses

LOWER DIVISION COURSES

Native speakers of Portuguese will not receive credit for taking lower division courses in Portuguese except with advance approval from the department.

All lower division courses in Portuguese are taught in Portuguese.

101. Elementary/Intensive Portuguese I (5) I

Five lectures and one hour of laboratory.
Prerequisite: Three years of high school romance language or two semesters of college romance language.

Pronunciation, oral practice, reading on Luso-Brazilian culture and civilization, essentials of grammar. Not open to students who have completed three years of high school Portuguese unless the third course was completed five or more years ago.

201. Elementary/Intensive Portuguese II (5) II

Prerequisite: Portuguese 101.
Continuation of Portuguese 101.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

299. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division courses in Portuguese are taught in Portuguese unless otherwise stated.

301. Intermediate Portuguese Grammar and Composition (3)

Prerequisites: Portuguese 201; and completion of the General Education requirement in Foundations II.C., Humanities required for non-majors.

Oral and written composition in Portuguese, based on models from modern Portuguese and Brazilian texts. Not open to students who have completed four years of high school Portuguese unless the fourth course was completed five or more years ago.

401. Advanced Portuguese Grammar and Composition (3)

Prerequisites: Portuguese 301; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Oral and written composition in Portuguese, based on models from modern Portuguese and Brazilian texts. (Formerly numbered Portuguese 302.)

443. Contemporary Luso-Brazilian Civilization (3)

Prerequisite: Portuguese 401.
Historical, cultural socioeconomic, ethnic, geographic, and political factors of modern Brazil and Portugal.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

534. Portuguese Literature (3)

Prerequisite: Portuguese 401.
Important movements, authors and works in the literature of Portugal from its beginnings to the present.

535. Brazilian Literature (3)

Prerequisite: Portuguese 401.
Important movements, authors and works of the literature of Brazil from the colonial period to modern times.

Psychology

In the College of Sciences

OFFICE: Life Sciences 110
TELEPHONE: (619) 594-5358

Faculty

Emeritus: Alf, Dicken, Grossberg, Harari, Hillix, Hunrichs, Karen, Koppman, Leckart, Lee, Lynn, McDonald, O'Day, Penn, Psomas, Rosenbaum, Sattler, Segal, Smith, Stevens, Turner

Chair: Hornbeck

Professors: Atkins-Kaplan, Borges, Bryson, J., Bryson, R., Dunn, Fenson, Franzini, Gallo, Graf, Graham, Hornbeck, Ingram, Kass, Langlais, Levine, Litrownik, Marshall, Martin, McGivern, Mollenauer, Murphy, Plotnik, Radlow, Reed, Reilly, Riley, Rodin, Saccuzzo, Sallis, Schulte, Sheposh, Spinetta, Yaremko

Associate Professors: Cronan, DeFran, Matt, McCordick, Price (Joseph), Price (Judy), Scollay

Assistant Professors: Castañeda, Malcarne

Offered by the Department

Doctor of Philosophy degree in clinical psychology.

Master of Arts degree in psychology.

Master of Science degree in psychology.

Major in psychology with the B.A. degree in liberal arts and sciences.

Minor in psychology.

The Major

What is psychology? Psychology is the scientific discipline that studies human behavior and mental processes; how human beings develop, learn, think and feel. Psychologists study the relative influences of heredity and experience throughout the life span in a wide variety of environments, including the laboratory, home, school, workplace, jury room, hospital and hospice. Faculty of the Department of Psychology at SDSU focus on a number of areas of psychology. Among these are:

- the effects of prenatal environments, including the influence of hormones and drugs on brain development and later functioning,
- the effects of childhood experience on social-emotional and cognitive development,
- the functioning of adults and the elderly in response to biological and environmental challenges,
- the normal processes of learning, memory and cognition,
- the effectiveness of behavioral and cognitive intervention procedures for enhancing physical and mental well-being.

What do psychology graduates do? The majority of students who graduate with a B.A. in psychology enter the job market and find employment in a broad range of settings, including business, state and local government agencies, and health-care services. Because the B.A. in psychology provides a liberal arts education as opposed to technical training, psychology majors will need to acquire job-specific experience or expect additional on-the-job training.

Does the B.A. in psychology prepare students for graduate work in applied areas? Students who have maintained strong academic records in psychology often enter masters degree programs in counseling: Clinical Social Work; Marriage, Family and Child Counseling; and School Psychology. Others pursue graduate work in a number of related fields including Program Evaluation, Industrial and Organizational Psychology, Public Health, Social Ecology, Education, Program Development, Criminal Justice, Law, Administrative Social Work, Human Resource Development, and Medicine.

What is the Ph.D. in psychology? Graduate work which leads to the Ph.D. trains one to be a scientific psychologist, to study human behavior and mental processes, and to teach at the university. The Ph.D. in clinical psychology also includes supervised training in clinical practice. The time commitment for earning a Ph.D. degree is considerable, and these programs are highly competitive. Only a small percentage of psychology graduates will in fact go on to earn the Ph.D. in psychology.

Advising

All psychology majors are urged to make an appointment at the Psychology Undergraduate Advising Office during their first semester of residence at SDSU.

Psychology Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 20011)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in psychology courses can apply to the degree.

A minor is not required for this major. However, depending on career goals, students may wish to consider minors in areas such as biology, business, public administration, recreation, social work and others.

General Requirements for the Major

Preparation for the Major. Psychology 101, 211, 260, and 270 (12 units). Students planning to major in psychology are advised to take these courses for a letter grade and to complete them before progressing to upper-division courses in the major. All psychology majors are encouraged to take a minimum of three units of general education biology.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

The Major. Two plans, Plan A and Plan B, may be used to satisfy the requirements for the major in psychology; however, it is not necessary that a student formally declare one of these plans. Indeed, given the broad range of career and graduate training possibilities, it is prudent for each student to develop an individual plan of study with the assistance of the Psychology Undergraduate Advising Office. Of the two plans, Plan A is more general. Coupled with appropriate electives, it will be suitable for the majority of psychology majors.

Plan A

Plan A specifies required coursework that will ensure the student exposure to the major substantive areas of psychology. Beyond the fulfillment of these core requirements, the selection of electives will be critically important in preparing the student for various career options including employment or graduate work.

Requirements for the Major

A minimum of 24 upper-division units in psychology are required to include twelve units selected from the following core courses, Psychology 330, 340, 350, 351, 375, 380, 388. The remaining twelve units may be selected from any psychology courses numbered 300 or above.

Recommendations for Electives

Employment with the B.A. Electives should be selected in accord with general career goals. Students interested in health and human services may take courses that focus on psychological health and well-being or issues related to child development. Those interested in business may take courses that focus on industrial, organizational and consumer issues or that emphasize computer skills, measurement, data analysis, or some combination of these.

Masters programs in counseling. At SDSU masters programs in counseling are offered by the School of Social Work and the College of Education. For these programs students have considerable latitude in the selection of psychology electives, but it is important to develop an appropriate profile of volunteer or work experience.

Applied Masters programs in psychology. The Psychology Department at SDSU does not presently offer an applied masters program, but expects to offer such a program with an emphasis in program evaluation or industrial-organizational beginning Fall 1996. A number of applied masters programs in psychology are offered at other universities. These include but are not limited to programs in counseling, psychological assessment, community psychology, program evaluation, industrial-organizational and consumer psychology. For admission to most masters programs in psychology, students must take Psychology 370 and 410, and establish a strong research profile by becoming involved in faculty-sponsored research.

Graduate work leading to the Ph.D. in Psychology. To be considered for most Ph.D. programs in psychology it is essential that students take Psychology 370 and 410, and establish a strong research profile by becoming involved in faculty-sponsored research. To complete undergraduate work in a timely fashion it will be important to become involved in research as early as possible.

Plan B

Plan B has been viewed historically as the "graduate school" track. However, the growing number of advanced degree programs available to psychology graduates and their enormous variation in requirements, makes it difficult for a single plan to satisfy all contingencies. The program of coursework specified in Plan B will satisfy course requirements for admission to the masters programs in psychology at SDSU. The masters programs presently offered at SDSU are pre-doctoral as opposed to applied programs. As such, they are suitable for students who have both the aptitude and determination to pursue the Ph.D., but have not compiled a competitive record.

Requirements for the Major

A minimum of 26 upper division units in psychology to include Psychology 370, 410; four units selected from 412, 415, 416, 417, 418, 419, nine units selected from Psychology 330, 340, 350, 351, 375, 380, 388. The remaining electives may be selected from any courses numbered 300 and above. Since the ultimate objective of students following this plan is to gain admission to a Ph.D. program in psychology, it will also be advisable to establish a strong research profile in faculty-sponsored research.

Psychology Minor

The minor in psychology consists of 18-19 units selected from one of the following areas:

Industrial/Organizational: Psychology 101 and 270 or equivalent; 12 units of upper division psychology to include Psychology 320, 370, and two of the following: Psychology 321, 322, 326, 327. (18-19 units)

Personality and Social: Psychology 101 and 211 or 260; 12 units of upper division psychology of which nine must be selected from Psychology 330, 340, 350 and 351. (18 units)

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

101. Introductory Psychology (3) I, II

Facts, principles, and concepts which are basic to understanding human behavior.

211. Learning (3) I, II

Prerequisite: Psychology 101.

Basic principles and research in animal and human learning. (Formerly numbered Psychology 210.)

260. Introduction to Physiological Psychology (3) I, II

Prerequisite: Psychology 101.

Elementary physiology of the nervous system. Physiological mechanisms underlying the psychological phenomena of sensation, perception, emotion, arousal, motivation, learning and memory, and cortical specialization.

270. Statistical Methods in Psychology (3) I, II

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement. Recommended: Psychology 101 and qualification on the Mathematics Departmental Placement Examination, Part IA. **Proof of completion of prerequisites required:** Copy of ELM score or verification of exemption.

Quantitative methods in psychology. Measures of central tendency and variability, graphic methods and percentiles, linear correlation and regression, applications of the normal probability curve, and an introduction to statistical inference including analysis of variance and chi-square. Students with credit or concurrent registration in the following lower division statistics courses will be awarded a total of four units for the two (or more) courses: Biology 215, Economics 201, Engineering 140, Mathematics 119, 250, Political Science 201, Psychology 270, and Sociology 201.

UPPER DIVISION COURSES

(Intended for Undergraduates)

302. Human Sexuality (1)

Prerequisite: Psychology 101.

New sex roles and their impact on male and female sexuality; coping with problems in love and sex. Topics include cohabitation, marriage, gay relationships, birth control, sexually transmitted diseases, lovemaking, sex and aging. Not open to students with credit in Psychology 455.

303. Drug Use, Abuse, and Treatment (1)

Prerequisite: Psychology 101.

Motivational and personality factors involved in drug use and abuse, psychological, physiological, and neurological effects of commonly used drugs, and methods to treat drug-related problems. Not open to students with credit in Psychology 365.

316. Operant Behavior (3)

Prerequisite: Psychology 101. Recommended: Psychology 211.

Contingencies of reinforcement, stimulus control, response shaping, aversive control, and other basic principles of operant behavior applied to the understanding and modification of human behavior.

320. Personnel and Industrial Psychology (3) I, II

Prerequisites: Psychology 101, and 270 or statistics in another field.

Proof of completion of prerequisites required: Copy of transcript.

Psychological principles applied to industrial problems of selection, placement and training.

321. Organizational Psychology (3) I, II

Prerequisite: Psychology 101.

Human behavior in the context of organizational life. Factors related to effectiveness of individuals and groups within organizations, including organization design, leadership and control, motivation, cooperation and conflict. Not open to students with credit in Management 351 or Public Administration 340.

322. Consumer Psychology (4)

Two lectures and six hours of laboratory.

Prerequisites: Psychology 101, and a course in statistics. **Proof of completion of prerequisites required:** Copy of transcript.

A review of the research literature and methods relevant to the individual as a consumer in our society. Emphasis on methods of measuring attitudes, values, and behavior of people when functioning as consumers.

326. Principles of Personnel Interviewing (3)

Prerequisite: Psychology 101.

Psychological factors in interviewing; interviewing techniques. Supervised practice in interviewing for purposes of personnel selection, appraisal and development.

327. Psychology of Leadership Behavior (3)

Prerequisite: Psychology 320 or 321.

Theory, methods, and research in leadership behavior. Emphasis on practical applications in the workplace.

330. Developmental Psychology (3) I, II, S

Prerequisites: Psychology 101; completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Psychological development of the normal individual from conception through childhood, adolescence, and maturity. Emphasis on the interdependence of various periods of the individual's life.

340. Social Psychology (3) I, II, S

Prerequisites: Psychology 101; completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

The major problems and findings concerning group behavior and group membership, the socialization of the individual, and processes of social interaction.

343. Intimate Relationships (1)

Prerequisite: Psychology 101.

Theoretical and empirical research on development, maintenance, and termination of intimate relationships such as friendship and love.

347. Psychology of Contemporary Social Problems (3)

Prerequisite: Psychology 101.

Discussion of social issues and problems of importance to the contemporary world, from the point of view of psychological theory, method and knowledge.

350. Abnormal Psychology (3) I, II, S

Prerequisite: Psychology 101.

Causes and treatment of abnormal behavior with emphasis on major behavior disorders.

351. Psychology of Personality (3) I, II, S

Prerequisites: Psychology 101; completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Major theoretical approaches to individual differences and the study of the person. Techniques of personality assessment. Selected research findings.

352. Psychology of Humor (1)

Prerequisite: Psychology 101.

Major theories of humor. Research on attributes of humor, its physical and emotional health benefits, role of humor in therapy, measurement issues, and uses and abuses of humor.

365. Drugs and Behavior (3)

Prerequisite: Psychology 101. Recommended: Psychology 260.

Fundamentals of regulation, administration, tolerance, dependence, and physiological activity of drugs. Effects of stimulants, depressants, opiates, psychedelics, and psychotherapeutic drugs on the nervous system and on cognitive, personality, and behavioral functioning.

370. Psychological Testing and Measurement (3) I, II, S

Prerequisite: Psychology 270 or a semester of statistical methods

in any other department. **Proof of completion of prerequisite required:** Copy of transcript.

Measurement theory and the basic principles of testing. Selection, construction and critical evaluation of group tests of intelligence, personality, aptitude, interest and achievement. (Formerly numbered Psychology 470.)

375. Intermediate Statistics: Computer Methods (4) I, II

Two lectures and six hours of laboratory.

Prerequisite: Psychology 270. **Proof of completion of prerequisite required:** Copy of transcript.

Application of microcomputers to psychological research with primary emphasis on statistical and graphic analysis of data.

380. Cognitive Psychology (3)

Prerequisite: Psychology 101. Recommended: Psychology 211.

Theory and research on attention, learning, memory, thinking, understanding, and language.

388. Sensation and Perception (3)

Prerequisite: Psychology 101.

Theory and research in sensory and perceptual processes.

401. Philosophical Issues in Psychology (3)

Prerequisite: Six units of psychology.

Mind-brain relationship and other topics at the interface of psychology and philosophy.

407. Health Psychology (3) I, II

Prerequisites: Psychology 211 and 270. **Proof of completion of prerequisites required:** Copy of transcript.

Behavioral components of major illnesses and causes of death and disability. Primary prevention of health problems through behavior change and psychological features of the health care system.

410. Introduction to Experimental Psychology (4) I, II

Two lectures and six hours of laboratory.

Prerequisites: Psychology 211 and 270. **Proof of completion of prerequisites required:** Copy of transcript.

Understanding of experimental design, quantitative methods, and experimental reports as they are applied to all areas of psychology.

412. Experimental Psychology: Social (4)

Two lectures and six hours of laboratory.

Prerequisite: Psychology 410. **Proof of completion of prerequisite required:** Copy of transcript.

Experimental literature, assigned and original laboratory projects in the field of social psychology.

415. Experimental Psychology: Personality and Clinical (4)

Two lectures and six hours of laboratory.

Prerequisite: Psychology 410. Recommended: Psychology 350 or 351. **Proof of completion of prerequisites required:** Copy of transcript.

Experimental and theoretical literature, assigned and original laboratory projects in the field of personality and clinical psychology.

416. Experimental Psychology: Learning (4)

Two lectures and six hours of laboratory.

Prerequisite: Psychology 410. **Proof of completion of prerequisite required:** Copy of transcript.

Experimental literature, assigned and original laboratory projects in the field of learning.

417. Experimental Psychology: Primate Behavior (4)

Two lectures and six hours of laboratory.

Prerequisites: Psychology 101; 260 or three units of biology or three units of anthropology; and Psychology 270. Recommended: Psychology 410. **Proof of completion of prerequisites required:** Copy of transcript.

Experimental literature, assigned and original observational and experimental projects in the field of primate learning and behavior.

418. Experimental Psychology: Child Development (4)

Two lectures and six hours of laboratory.

Prerequisite: Psychology 410. Recommended: Psychology 330. **Proof of completion of prerequisite required:** Copy of transcript.

Methods, techniques and principles used in the scientific study of child behavior.

419. Experimental Psychology: Memory and Cognition (4)

Two lectures and six hours of laboratory.

Prerequisite: Psychology 410. Recommended: Psychology 380.

Proof of completion of prerequisite required: Copy of transcript.

Experimental literature, assigned and original laboratory projects in human memory and cognition. Examination of information-processing capacities and processes in perception, learning, memory, and other cognitive activities.

432. Advanced Topics in Developmental Psychology (3)

Prerequisite: Psychology 330.

Selected areas in developmental psychology. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

446. Advanced Topics in Social Psychology (3)

Prerequisite: Psychology 340.

Selected areas in social psychology. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

452. Introduction to Counseling and Therapy (3)

Two lectures and two hours of activity.

Prerequisite: Psychology 350 or 351.

A survey of theory, methods and research in psychological approaches to personality and behavior change. Practice in basic interviewing and critical analysis of interviews. Not open to students with credit in Psychology 650 or Counselor Education 660.

453. Advanced Topics in Abnormal Psychology (3)

Prerequisite: Psychology 350.

Selected areas in abnormal psychology. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

454. Mental Retardation (3)

Prerequisite: Psychology 101. Recommended: Psychology 330.

Nature and causes of mental retardation, including psychological effects of adverse physical, chemical, biological, and social stimulation. Description and classification of mental retardation.

455. Psychology of Human Sexual Behavior (3)

Prerequisite: Psychology 101.

Evaluation of behavioral and physiological data of normal, aberrant, and dysfunctional human sexual behavior, including description of available treatment methods.

456. Psychology of Death and Bereavement (3)

Latest psychological research and clinical practice in the area of death and dying, geared to assisting the student in appropriate ways of aiding both the dying and the bereaved in coming to terms with death.

457. Psychological Factors in Alcoholism (3)

Prerequisites: Six units of psychology and upper division standing.

Theoretical and empirical approaches to alcoholism: causes and treatment.

460. Advanced Topics in Physiological Psychology (3)

Prerequisite: Psychology 260 or six units of biology.

Selected areas within physiological psychology. See Class Schedule for specific content. May be repeated with new content. Maximum credit six units.

472. Fundamental Topics for Advanced Statistics in Psychology (3)

Two lectures and two hours of activity.

Prerequisites: Psychology 270 and consent of instructor. **Proof of completion of prerequisite required:** Copy of transcript.

Combinatorial arithmetic, discrete probability, normal distribution, central limit theorem, sampling distributions, point and interval estimation, hypothesis testing, statistical inference, the t, Chi-Square, and F distributions, matrix algebra, introduction to general linear model, and analysis of variance.

491. Academic or Psychological Counseling Experiences (3) Cr/NC

Prerequisites: Upper division psychology major with a 3.0 minimum grade point average and consent of the psychology undergraduate coordinator.

Individual supervision of academic or psychological counseling experiences, geared to the acquisition of counseling and communication skills. May be repeated with the approval of the psychology undergraduate coordinator. Maximum credit six units.

495. Readings and Practice in Companionship Therapy (3) I, II

Prerequisite: Six units from Psychology 330, 340, 350, or 351.

Students are paired with troubled or potentially troubled clients from selected community agencies, supervised by both the instructor and the agency. Assigned readings, small group meetings, written reports required. May be repeated with new client and agency. Maximum credit six units.

496. Selected Topics in Psychology (1-4)

Prerequisite: Psychology 101.

Intensive study in specific areas of psychology. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

497. Senior Project (1-3) I, II

Prerequisites: Twelve units of psychology and consent of instructor.

An individual investigation and report on a research project. Maximum credit six units.

499. Special Study (1-3) I, II

Prerequisite: Consent of department chair.

Individual study, including library or laboratory research and a written report. Maximum credit six units.

**UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)**

501. History of Psychology (3)

Limited to graduate students or psychology majors with senior standing.

The historical background of modern psychology.

532. Theories and Methods in Developmental Psychology (3)

Prerequisite: Psychology 330.

Overview of developmental psychology from its origins in philosophy and biology to an examination of processes that shape perception, language acquisition, socialization, and cognition.

551. Clinical Psychology: Theory and Practice (4)

Two lectures and six hours of laboratory.

Prerequisite: Psychology 350.

Clinical assessment, theory and practice of behavior change, and professional ethics.

552. Psychology of Obesity and Weight Management (3)

Prerequisite: Senior or graduate standing in psychology or related fields.

Theory and current research issues on psychology of obesity, weight control, and eating disorders. Social, personality, cognitive, and physiological influences. Use of cognitive behavior modification for weight control.

587. Advanced Principles of Learning and Cognition (3)

Prerequisites: Psychology 211 and 270.

Empirical data, basic principles and theoretical positions of major theorists in learning and cognitive psychology.

596. Selected Topics in Psychology (3)

Prerequisites: Psychology 101 and consent of instructor.

Intensive study in specific areas of psychology. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

**GRADUATE COURSES
Refer to the Graduate Bulletin.**

Public Administration and Urban Studies

In the College of Professional Studies and Fine Arts

OFFICE: Professional Studies and Fine Arts 105

TELEPHONE: (619) 594-6224

A Member of the National Association of Schools of Public Affairs and Administration (NASPAA).

Faculty

Emeritus: Bigger, Kitchen, Kochanski, Leiffer

Director: Rea

Professors: Boostrom, Caves, Clapp, Gazell, Gilbreath, Gitchoff,

Gupta, Henderson, Pugh, Rea, Ryan, Sparrow, Sutton

Associate Professors: Calavita, Lee, Sabbath, Stock

Assistant Professors: Dobbs, Walshok, Wilson

Offered by the School of Public Administration and Urban Studies

Master of City Planning degree.

Master of Public Administration degree.

Major in criminal justice administration with the B.S. degree in applied arts and sciences. (Refer to this section of the catalog on Criminal Justice Administration.)

Major in public administration with the B.A. degree in applied arts and sciences.

Emphasis in city planning.

Minor in public administration.

Certificate in public administration (available at Imperial Valley Campus only).

The Major

Today, more than ever before, the nation is in need of effective leadership and competence in the administration of public affairs. The growth of all levels of government and public service organizations and their increasing responsibilities in a complex society have led directly to the need for more capable public administrators. The primary purpose of the public administration major is to provide knowledge and skills for students who wish to prepare themselves for management careers in government, community agencies, private not-for-profit organizations, planning and consulting firms, and private sector organizations that work in partnership with the public sector.

The undergraduate public administration major is an interdisciplinary program. In addition to the courses taken within the department, provisions have been made for the student to select additional courses in areas as diverse as economics, sociology, social welfare, political science, and psychology. Required preparatory courses for the major include classes in accountancy, economics, information and decision systems, political science, and statistics.

Career opportunities in public administration can be found throughout the public and private sectors, and the future is represented by an expanding job market. The Public Administration Center within the School of Public Administration and Urban Studies provides a comprehensive file of current job openings locally, throughout California, and across the country.

Upon graduation, students have secured a wide variety of administrative positions within government, the private sector, and community agencies. For example, graduating students have recently been placed with city personnel and finance departments, county operating departments, special districts, hospitals, and consulting firms.

Public Administration Major

**With the B.A. Degree in Applied Arts and Sciences
(Premajor Code: 21020) (Major Code: 21021)**

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Accountancy 201, Information and Decision Systems 180, Economics 101 and 102, Political Science 102, Public Administration 200, and a three-unit course in statistics. (21 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Public Administration 301, 310 or 312 or 315, 330, 340, 450, 460, 497 or 498; and 15 units selected with the approval of an adviser from the public administration faculty. Within this program, students may specialize in such areas as personnel and labor relations, urban management, urban planning, public finance and budgeting, information systems, and environmental management. Interested students must seek guidance from a public administration program faculty adviser. A master plan of the courses taken to fulfill the major must be approved by a public administration program faculty adviser and filed with the Office of Admissions and Records one semester before graduation.

Emphasis in City Planning

(Premajor Code: 21020) (Major Code: 21021)

Preparation for the Major. Accountancy 201, Economics 101 and 102, Information and Decision Systems 180, Political Science 102, Public Administration 200, and a three-unit course in statistics. (21 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Public Administration 301, 310, 330, 340, 450, 460, 497 or 498; and Public Administration 320, 420, 525, and two courses selected from Public Administration 341, 350, 510, and 512. A master plan of courses taken to fulfill this emphasis must be approved by a city planning program faculty adviser and filed with the Office of Admissions and Records one semester before graduation.

Public Administration Minor

The minor in public administration consists of 24 units to include Political Science 102 and a course in statistics or Information and Decision Systems 180, Public Administration 301, 310 or 312 or 315, 330, 450, and two additional courses with the consent of a public administration adviser. Prerequisites for the minor include Economics 101 and 102.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Public Administration Certificate (Imperial Valley Campus)

To receive the certificate a candidate must complete an approved program of 18 units with a minimum grade point average of 2.5. Up to two public administration courses taken at another institution may be included among the required courses with approval of the program adviser.

Requirements include Public Administration 301, 330; three units selected from Public Administration 340, 341, or 450; and nine units in an area of specialization selected with the approval of the adviser.

Courses

LOWER DIVISION COURSE

200. The Urban Scene (3) I, II

Key issues in public administration, criminal justice administration, and city planning. Emphasis on government structure and public decision-making process, organizational behavior, effectiveness of criminal justice policies, zoning, and land use considerations.

UPPER DIVISION COURSES (Intended for Undergraduates)

301. Concepts and Issues in Public Administration (3) I, II

Theory and practice of governmental administration in differing environments, role of administrators in public policy, issues facing administrators, techniques of administration.

310. Management of Urban Governments (3) I, II

Problems of local units of government in the urban environment. Organization and function of local agencies. Emphasis on California.

312. Management of State Governments (3) I

Administrative and constitutional problems of state management in the American federal system. Emphasis on California.

315. Management of the Federal Government (3) II

Prerequisite: Public Administration 301.
Problems in the administration of the federal government. Leadership, specialization, unity of command, and oversight.

320. Introduction to Urban Planning (3) I, II

An introduction to community planning: regional, county, and city. Consideration of the master plan including its purposes, contents, and method of adoption.

330. Public Personnel Administration (3) I, II

Analysis of personnel problems. Supervision and management of public employees and public organizations in an age of change.

340. Administrative Behavior (3) I, II

Social, psychological, and behavioral theories of organization; concepts of administrative leadership; organization and the individual; emphasis on governmental organizations. Not open to students with credit in Management 351 or Psychology 321.

341. Administrative Management (3) I, II

Areas and problems of administrative research. Management and operations in public organizations including forecasting, resource allocation, planning and administration of programs, preparation of administrative reports. Quantitative models of managerial decision making.

350. Contemporary Urban Issues (3)

Focus on urban areas and urbanism from a public policy perspective; course examines and critiques the physical, economic, social and political dimensions of contemporary American cities utilizing a multidisciplinary approach.

420. Methods of Analysis in City Planning (3) II

Prerequisites: Public Administration 320 and basic statistics course.

Methods of primary data collection and analysis of secondary data sources for problem solving in city planning, techniques associated with urban design and urban development.

440. Microcomputer Applications in Criminal Justice and Public Administration (3)

Two lectures and three hours of laboratory.
Prerequisite: Limited to criminal justice administration and public administration majors.

Operation and use of microcomputer hardware and software in criminal justice. Laboratory instruction focuses on applicability of programs to criminal justice operations.

450. Fiscal and Budgetary Policy (3) I, II

Prerequisites: Public Administration 301, Economics 101 and 102.
Policies of fiscal administration and budgeting; political implications of the governmental budget process; revenue, debt, and treasury management; the functions of accounting and financial reporting.

460. Administration and Public Policy Development (3) I, II

Process of formulating public policy with emphasis on the role of public agencies.

463. Science, Technology and Public Policy (3)

Scientific and technological innovations currently being introduced into public organizations and their impact on the public policy-making process, and effects of government regulations and policy on scientific and technological developments in society.

475A. The American City in the Cinema (3)

Two lectures and two hours of activity.
Growth of American city and various aspects of urban life, such as immigration, industrialization, anti-urbanism, and the city of the future, as reflected in American films. (Formerly numbered Public Administration 475.)

475B. The American City in the Cinema (1) Cr/NC (Offered only in Extension)

Growth of American city and various aspects of urban life, such as immigration, industrialization, anti-urbanism, and the city of the future, as reflected in American films.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

497. Investigation and Report (3) I, II

Prerequisite: Consent of instructor.
Analysis of special topics. Admission by permission of instructor.

498. Internship in Public Administration (2-6) Cr/NC I, II

Prerequisites: Public Administration 301, 330, 340, 341, 450, and all lower division required courses; senior standing and a "B" (3.0) average in the major.

Students will be assigned to various government agencies and will work under joint supervision of agency heads and the course instructor. Participation in staff and internship conferences.

499. Special Study (1-3) I, II

Prerequisite: Twelve upper division units in public administration.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

510. Intergovernmental Relations in the United States (3) I

Prerequisite: Public Administration 310 or 312 or 315.
Constitution, political and administrative characteristics of American federalism, including regionalism, interstate compacts, and grants-in-aid.

512. The Metropolitan Area (3)

Prerequisite: Public Administration 310 or 312.
Problems of government and administration arising from population patterns and physical and social structures of metropolitan areas.

520. Decision Making in the Urban Community (3)

Prerequisite: Public Administration 310.
Processes of decision making in the management of urban communities.

525. The U.S. City Planning Process (3) I

Prerequisite: Public Administration 320 or graduate standing.
Description and critique of traditional city planning process; styles and roles of city planner; city planning values and ethics.

530. Negotiation and Bargaining in the Public Service (3)

Prerequisite: Public Administration 301.
Specific issues such as strategies, the effects of threat, the physical setting, use of a third-party observer and theories of advocacy. Emphasis on analyzing simulations of the bargaining process and developing effective negotiation skills.

531. Governmental Employer-Employee Relations (3)

Prerequisite: Public Administration 330.
Historical development, legal basis, and organizational implications of governmental employer-employee relations; emphasis on California local government.

540. Public Administrative Systems Analysis (3)

Prerequisites: Public Administration 301 and a statistics course.
Systems and organization analysis; work standards and units; procedures analysis; administrative planning.

550. Budgetary and Financial Administration in the Public Sector (3) II

Prerequisites: Public Administration 301 and 450.
Management trends in public sector financial administration; budgetary procedures and techniques; control and monitoring systems. Cash management, capital projects management, debt administration, disbursement, funds management, and auditing.

570. Administrative Law (3)

Prerequisite: Public Administration 301.
The law of public office and public officers, powers of administrative authorities, scope and limits of administrative powers, remedies against administrative action.

580. Comparative Public Administration (3)

Prerequisite: Public Administration 301.
Administrative organization and process of selected foreign and American governments. Analysis of the cultural basis of administrative systems.

GRADUATE COURSES IN PUBLIC ADMINISTRATION AND URBAN STUDIES and CITY PLANNING

Refer to the Graduate Bulletin.



Recreation

In the College of Professional Studies and Fine Arts

OFFICE: Professional Studies and Fine Arts 431
TELEPHONE: (619) 594-5110

Accredited by the National Recreation and Parks Association.

Faculty

Emeritus: Geba, Hanson, Peterson, Rankin
Chair: Lamke
Professors: Dixon, Duncan, Gattas, Lamke
Associate Professor: Beck

Offered by the Department of Recreation, Parks and Tourism

Major in recreation administration with the B.S. degree in applied arts and sciences.

Emphasis in outdoor recreation.
Emphasis in recreation systems management.
Emphasis in recreation therapy.
Minor in recreation.

The Major

A commitment to working with people to enhance the quality of their lives is important to a study of recreation.

Increasingly diverse opportunities are available in the park, recreation and tourism profession. The major offers a sufficiently wide range of courses for students who may wish to enter diverse recreation, park, or human services fields.

Students in this major elect one of three areas of emphasis. The outdoor recreation emphasis stresses conservation, natural science, ecology, and recreation/park administration. Society's efforts to sustain a balance between the environment and recreational use are studied.

Recreation systems management stresses the effective organization, administration and supervision of recreation, park, and tourism agencies, both public and private.

Recreation therapy prepares students to work with the disabled. It stresses elements of both psychology and social science, as well as recreation leadership skills.

Outdoor recreation graduates serve as naturalists, outdoor education specialists, outdoor recreation planners, park interpreters, and park rangers.

Recreation systems management graduates find employment as administrators and supervisors with public, private or commercial park and recreation agencies. They assume professional positions with youth and family serving agencies, private clubs and condominium associations, a variety of leisure related businesses including tourism agencies, and municipal, county, and state organizations.

Recreation therapy graduates may become therapeutic recreation specialists, registered and certified by the State Board of Personnel. They are employed typically by hospitals, convalescent and rehabilitation centers, and retirement communities.

Recreation Administration Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 21031)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

The major in recreation administration may be planned with an emphasis in one of the following three areas: (1) Outdoor Recreation, (2) Recreation Systems Management, or (3) Recreation Therapy.

A minor is not required with this major.

Emphasis in Outdoor Recreation

Preparation for the Major. Recreation 101, 107, 284; Biology 100, 100L; Geography 101; Geological Sciences 100, 101; Psychology 101; Sociology 101. (26 units)

Upper Division Writing Requirement. Passing the University Writing Examination or Recreation 396W with a grade of C (2.0) or better.

Major. A minimum of 51 upper division units to include Recreation 304, 305, 351, 464, 485, 487, 498 (12 units), 570, 575; Geography 370, 575; and nine units selected from Biology 330, 359, 454; Geography 572; Geological Sciences 301; History 441; Political Science 334; Psychology 340; Recreation 450, 496.

Emphasis in Recreation Systems Management

Preparation for the Major. Recreation 101, 107, 284; Information and Decision Systems 180; Psychology 101; Sociology 101; and six units selected from Accountancy 201; Economics 101; Finance 140; Information and Decision Systems 290; Management 150. (24 units)

Upper Division Writing Requirement. Passing the University Writing Examination or Recreation 396W with a grade of C (2.0) or better.

Major. A minimum of 48 upper division units to include Recreation 304, 305, 351, 464, 498 (12 units), 570, 575; nine units selected from Recreation 340, 450, 460, 470, 475, 485, 580; and nine units selected from Counseling and School Psychology 400; Economics 370; Marketing 370, 371, 373; Psychology 321, 340, 347; Public Administration 301, 340, 350, 460; Sociology 355, 444, 459, 557.

Emphasis in Recreation Therapy

Preparation for the Major. Recreation 101, 107, 284; Biology 150; Information and Decision Systems 290; Psychology 101; Social Work 110; Sociology 101. (25 units)

Upper Division Writing Requirement. Passing the University Writing Examination or Recreation 396W with a grade of C (2.0) or better.

Major. A minimum of 49 upper division units to include Recreation 304, 305, 351, 371, 451, 464, 498 (12 units), 570; Biology 336; and twelve units selected from Recreation 450, 575, 580; Counseling and School Psychology 400; Drama 310; Psychology 330, 335, 350, 351, 452, 454; Sociology 436, 441, 443, 444, 527, 528, 543.

Recreation Minor

The minor in recreation consists of a minimum of 21 units to include Recreation 101, 107, 304, 305, and nine additional upper division units selected from Recreation 340, 351, 371, 451, 452, 464, 475, 485, 496, 575, 580. Prerequisite to the minor includes Biology 100.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

101. Introduction to Recreation Systems (3) I, II (CAN REC 2)

Basic role of recreation and park systems in today's society. Scope of recreation services, their history, philosophy, facilities, programs, personnel and evaluation.

107. Recreation Planning and Leadership (3) I, II

Two lectures and three hours of laboratory.

Theories, principles and techniques of group leadership, group dynamics, communication, problem solving, creativity, program planning, and publicity as they relate to selected recreation systems.

284. Supervised Field Work (3) Cr/NC I, II, S

Prerequisites: Consent of instructor or department chair, credit or concurrent registration in Recreation 107, and 125 hours experience in recreation leadership.

Observation and participation in community recreation leadership. Practical experience in a variety of recreational settings. Eight hours per week at an agency.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

304. Challenges of Leisure (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Study of leisure and its impact on contemporary life; issues affecting recreation in today's urbanized society. (Formerly numbered Recreation 204.)

305. Wilderness and the Leisure Experience (3) I, II

Prerequisites: Biology 100; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Use and abuse of natural resources for recreational purposes. Effects of increased leisure on wilderness areas. Field experiences required. (Formerly numbered Recreation 205.)

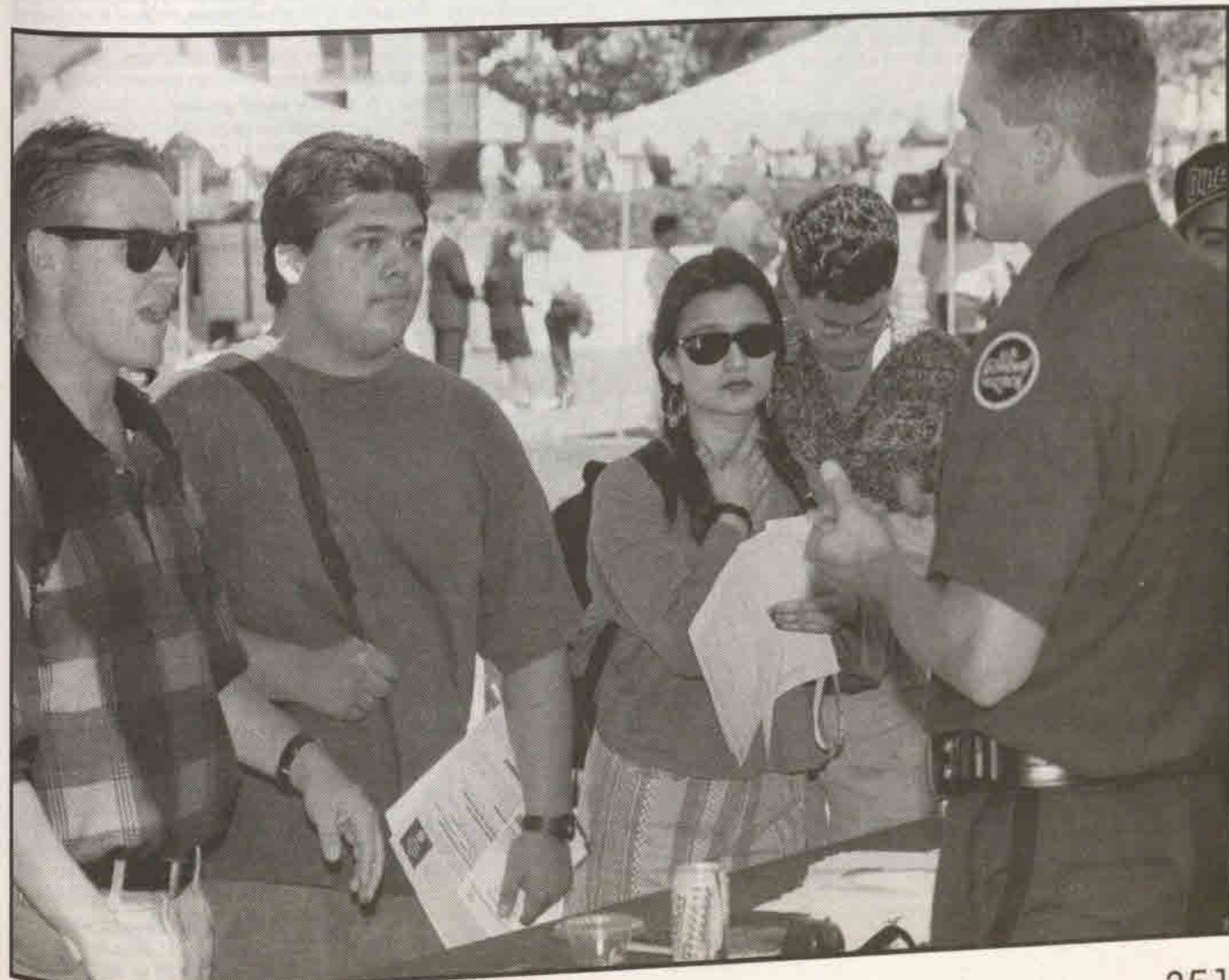
340. Conduct of Recreational Sports (3) I, II

Three lectures plus outside practical experience in the conduct of recreational sports programs.

Organization of competition, community sports programs, administration of intramural athletics, and techniques of officiating.

351. Recreation for Special Populations (3) I, II

Analysis of the sociopsychological aspects of special populations and their implications for leisure pursuits. Field trips may be included.



371. Professional Foundations of Recreation Therapy (3) I, II

Prerequisite: Recreation 351 required for recreation majors; open to others with consent of instructor.

Analysis of present-day policies, programs, implementation and future aspects of professional principles of recreation therapy.

396W. Writing in Recreation Settings (3) I, II

Prerequisites: Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Theory and practice of writing in the field of recreation and parks with application to various settings.

450. Camp and Aquatic Administration (3)

Prerequisite: Recreation 101.

Management of resident, day and travel camps and swimming pools, beaches, lakes and marinas; legal requirements, health and safety standards, finances, programming, maintenance, and planning. Not open to students with credit in Recreation 548 and 549.

451. Clinical Processes in Recreation Therapy (4)

Three lectures and three hours of laboratory.

Prerequisites: Recreation 351 and Biology 150. Recommended: Recreation 371.

Theoretical principles of therapy and prevention of impairment. Survey of medical/psychiatric pathology. Integration and application of therapeutic and clinical principles. Emphasis on efficacy of therapeutic recreation services in human service settings. Not open to students with credit in Recreation 452.

460. Industrial, Corporate, and Military Recreation (3) II

Prerequisites recommended: Recreation 101 and 107.

Industrial, corporate, and military recreation services with emphasis on organizational patterns including underlying and theoretical concepts, finances, types of programs, specialized administrative skills, and current trends and issues.

464. Supervision of Recreation and Park Agencies (3) I, II

Prerequisite: Recreation 107.

Interagency relations, personnel policies and procedures, volunteer coordination, supervisory techniques, community organization, public relations in public, private and commercial settings.

470. Recreational Travel and Tourism Management (3) I

Prerequisites recommended: Recreation 101 and 304.

Tourism management, economics, marketing and development. Recognizing indicators of tourism's recreational, social and cultural impact. Organization of tourism industry and its components.

475. Commercial Recreation Management (3) I

Analysis of commercial recreation field, including design, development, programming and marketing aspects of various commercial recreation enterprises.

484. Directed Leadership (3) Cr/NC I, II, S

One lecture and eight hours of supervised activity.

Prerequisite: Recreation 284.

Supervised leadership experience in public and private recreation agencies. Maximum credit six units.

485. Outdoor Recreation Planning and Policy (3) II

Nature and scope of recreation in nonurban areas. Public demand for recreation and its impact on natural resources. Management, planning, research and operation of regional and national park and recreation areas.

487. Outdoor Education and Environmental Interpretation (3)

Prerequisite: Recreation 101.

Philosophy, theory, methods, and scope of outdoor education and environmental interpretation. Not open to students with credit in Recreation 482 and 486.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

498. Internship in Recreation Systems (6 or 12) Cr/NC I, II, S

Twenty off-campus hours required per week for 6-unit program, or 40 off-campus hours required per week for 12-unit programs.

Prerequisites: Consent of instructor or department chair; completion of all required lower division recreation courses, and completion of both Standard or Multimedia First Aid certificate and CPR certificate by end of semester.

Students will be assigned to various governmental, commercial, private or medical agencies conducting recreation programs. Variety of experiences in supervision and administration. Maximum credit 12 units.

499. Special Study (1-3) I, II

Prerequisite: Consent of special study adviser.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

570. Administration of Recreation Systems (3) I, II

Prerequisite: Recreation 464.

Administrative management of recreation, parks and tourism organizations including organizational behavior, planning, policy development, legal obligations, principles of fiscal management, control, budgeting, managerial economics, liability, land acquisition, constitutional guarantees, contracts, and criminal law. Not open to students with credit in Recreation 560 and 565.

575. Designing Recreation and Park Areas and Facilities (3) I, II

Prerequisite: Recreation 101.

Design principles and concepts applied to planning and development of park and recreation areas and facilities.

580. Leisure and the Aging Process (3) II

Concepts of the relationship between leisure and gerontology are examined. Influence of leisure and recreation on work and life satisfaction of older adults.

GRADUATE COURSES Refer to the Graduate Bulletin.

OFFICE: Adams Humanities 4231

TELEPHONE: (619) 594-5185

Faculty

Emeritus: Anderson, Downing, Friedman, Gefer, Jordan, Khalil

Chair: Sparks

Professors: Hermansen, Johnson, Sparks

Associate Professor: Holler

Lecturers: Boni, Thomas

Offered by the Department

Major in religious studies with the B.A. degree in liberal arts and sciences.

Minor in religious studies.

The Major

Religious studies seeks to explore the role of religion as an important part of human history. It is designed to improve understanding of religion; not to advocate religious belief or any particular religious tradition.

Religious studies students examine the major Eastern and Western religions, their founders and leaders, myths and rituals, theologies, creeds and scriptures, and institutional forms, as well as the relationship between religion and literature, the arts, ethics, science, and psychology.

Career opportunities available to religious studies graduates include positions such as university, college, community college, or secondary school teacher (graduate study and/or teaching credential required); counselor and social worker (graduate study required); religious education director, rabbi, priest, or minister in a church or synagogue setting (graduate study required); religion reporter or editor for a newspaper or magazine; textbook editor. The religious studies program is also excellent background for graduate professional programs in such areas as law, business, and foreign service.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major. Students seeking a minor in religious studies under the *Individualized Program* area must confer with the department adviser in the first semester of their study.

Religious Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15101)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in religious studies courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Religious Studies 101; Philosophy 101 or 102 or Religious Studies 102. (6 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Religious Studies 396W or, with approval of the department, Anthropology 396W, Rhetoric and Writing 305W, or Sociology 396W with a grade of C (2.0) or better.

Religious Studies

In the College of Arts and Letters

Major. A minimum of 27 upper division units in religious studies to include Religious Studies 300, either 301 or 305, and at least three units from each of the three areas listed below:

Western Religious Traditions: Religious Studies 318, 320, 325, 330, 331, 340, 390, 580*, 581*, 582*, 583*, 596*.

Eastern Religious Traditions: Religious Studies 401, 403, 580*, 581*, 582*, 583*, 596*.

Religion and Culture: Three units from Religious Studies 300, 350, 353, 354, 360, 363, 365, 370, 380, 385, 580*, 581*, 582*, 583*, 596*.

* When deemed relevant by the department adviser. Maximum credit six units for any course with variable content.

Religious Studies Minor

The minor in religious studies consists of a minimum of 15 units to include at least three lower division units in religious studies, and 12 units from one of the three areas listed below:

Western Religions: Religious Studies 301, 305, 318, 320, 325, 330, 331, 340, 390, 580*, 581*, 582*, 583*, 596*.

Eastern Religions: Religious Studies 401, 403, 580*, 581*, 582*, 583*, 596*.

Religion and Culture: Religious Studies 350, 353, 354, 360, 363, 365, 370, 380, 385, 580*, 581*, 582*, 583*, 596*.

Or **AN INDIVIDUALIZED PROGRAM** of 12 upper division units approved in advance by the department adviser.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

* When deemed relevant by the department adviser. Maximum credit six units for any course with variable content.

Courses**LOWER DIVISION COURSES****101. World Religions (3) I, II**

Major figures, attitudes, and teachings of world religions.

102. Introduction to Religion (3) I, II

Nature, meaning, and presuppositions of religious experience.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

**UPPER DIVISION COURSES
(Intended for Undergraduates)****300. Ways of Understanding Religion (3) I**

Prerequisite: Three units of religious studies.

Major approaches to study of religious phenomena and central issues in methodology.

301. Hebrew Scriptures (3) I, II

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Problems of composition and historical significance in the context of religious meanings of the scriptures known to Jews as the Tanakh (the Pentateuch, the Prophets and the Writings) and to Christians as the Old Testament.



305. The New Testament (3) I, II

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Recommended: Religious Studies 301. The problems of composition and historical significance in the context of religious meanings.

318. Modern Religious Thought in the West (3)

Prerequisite: Three units of religious studies. Selected issues in religious thought in Europe and America during the nineteenth and twentieth centuries.

320. Judaism (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Major doctrines, practices, and developments from rabbinic times to present.

325. Christianity (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Major doctrines, practices and developments from time of Jesus to present.

330. Topics in Judaism (1-3)

Prerequisite: Three units of religious studies.

Selected topics such as early Hebrew religion, the Talmudic period, medieval religious thought, mysticism, modern Judaism from the emancipation to the Holocaust, contemporary thought. May be repeated with different content. See Class Schedule for specific content. Maximum credit six units.

331. Topics in Islam (3)

Prerequisite: Three units of religious studies.

Selected topics such as the Qur'an and its interpretation (*tafsir*), Prophet Muhammed and his traditions (*hadith*), and Islamic mysticism (*Sufism*). May be repeated with new content. Maximum credit six units.

340. Islam (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Major doctrines, practices and developments from the time of Mohammed to the present.

350. Dynamics of Religious Experience (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities.

Chief data and major approaches in the study of individuals' religious behavior and experiences. Special attention to relevant problems in world religions and philosophical views of man.

353. Religion and Psychology (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Theological and religious interpretations of psychological dimension of human existence. Critique of psychological inquiry into traditional and contemporary forms of religious life. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units of which three units may be applicable to General Education.

354. Religion and Society (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Theological and religious interpretations of the social dimension of human existence. Critique of social science inquiry into traditional and contemporary forms of religious life.

360. Religion, Literature, and the Arts (3)

Prerequisite: Three units of religious studies.

The relations between religion, literature, and the arts in major cultural traditions.

363. Religion and the Sciences (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Relation of the natural sciences to religious questions of nature, humanity, and destiny.

365. Religion and Ethics (3)

Prerequisite: Three units of religious studies.

Values, morality, and responsibility, from religious perspectives. Application to contemporary moral issues.

370. Women and Religion (3)

Prerequisite: Three units of religious studies.

Place and role of women in major religious traditions; historic contributions of women to religion; female deities; feminist responses to male-centered traditions.

380. Shamanism (3)

Prerequisite: Three units of religious studies.

Shamanism from a global perspective, from primal to modern times, its persistence and revitalization in post-industrial religion; its religious forms through comparative study of Amazonian, African, Native American, and Southeast Asian forms.

385. Native American Religions (3)

Prerequisite: Three units of religious studies.

Native American religions with focus on sacred culture, world view, ritual life, community and myth as a basis for interpreting religious experience; encounter of Indian traditions with modernity and revitalization responses.

390. Religion in America (3)

Prerequisite: Three units of religious studies.

Selected topics in religion in America, such as church-state relations, transcendentalism, Black Christianity, pentecostalism, theosophy, oriental movements in America and neo-paganism. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units. (Formerly numbered Religious Studies 522.)

396W. Writing/Research Methods (1) Cr/NC

Prerequisites: Six upper division units in religious studies. Must be taken concurrently with an upper division course in religious studies. Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Research and writing in field of religious studies.

401. Religions of India (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Phenomenological studies in the major religious traditions of India, especially Hinduism and Buddhism.

403. Religions of the Far East (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Phenomenological studies in the major religious traditions of east Asia, especially China and Japan.

496. Experimental Topics (1-4)

Prerequisite: Three units of religious studies.

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Twelve upper division units in religious studies. Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

580. A Major Figure (3) I, II

Prerequisite: Three units of religious studies.

Life, works and significance of one major figure in a religious tradition. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

581. Major Theme (3) I, II

Prerequisites: Three units of religious studies and upper division or graduate standing.

Advanced systematic study of a theme or motif selected from major religious traditions. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

582. Major Text (1-3)

Prerequisites: Three units of religious studies and upper division or graduate standing.

Advanced systematic study of a selected scripture or classic text(s) selected from one of the major religious traditions. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

583. Major Tradition (3)

Prerequisites: Three units of religious studies and upper division or graduate standing.

Advanced systematic study of the doctrines, practices, and development of a major religious tradition. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

596. Advanced Topics in Religious Studies (1-3)

Prerequisite: Consent of instructor.

Advanced selected topics in religious studies. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES Refer to the Graduate Bulletin

Rhetoric and Writing

In the College of Arts and Letters

OFFICE: Nasatir Hall 227
TELEPHONE: (619) 594-6515

Faculty

Emeritus: Denman, MacDonald
Chair: Sweedler-Brown
Professors: Johns, Little, Sweedler-Brown
Associate Professor: Poole
Assistant Professors: Ornatowski, Robinett

Offered by the Department of Rhetoric and Writing Studies

Courses in reading, writing, and learning skills.
Major or minor work in rhetoric and writing is not offered.

General Information

The Department of Rhetoric and Writing Studies offers writing programs at all levels for university students. The department works cooperatively with other academic departments and campus groups to plan and develop a comprehensive writing program which integrates writing and reading with critical thinking throughout the curriculum.

Developmental Writing Program (formerly offered by the Academic Skills Center): Developmental writing courses in this program prepare students to satisfy SDSU's competency requirements in written English. For more information, refer to "Writing Requirements" in the "Graduation Requirements" section of this catalog.

General Education Program (formerly offered by the Department of English and Comparative Literature): Completion of courses in this program fulfills the "Written Communication" requirements for the Communication and Critical Thinking portion of the SDSU General Education program.

Upper Division Courses (formerly offered by the Department of English and Comparative Literature): The department offers expository writing ("W") courses which satisfy the University's Upper Division Writing Requirement. The department also offers a required course in the teaching of composition for students in the Single Subject Teaching Credential in English degree program.

Technical and Scientific Writing Certificate

The purpose of this certificate program is to prepare students for careers in technical and scientific writing. The program is designed for people who are working on degrees in nontechnical, technical, and scientific fields. It also provides a self-improvement opportunity for people seeking employment, promotion, or upward mobility on the job who are not enrolled in degree programs. Students will complete a total of 21 units that must be approved by the director of the program in the Department of Rhetoric and Writing Studies. Applicants for entrance into the program must complete a writing assessment examination, administered by the director of the program, and may be required to take additional coursework to improve writing proficiency. Nine units in the certificate program may be counted toward the major in English, and three units may be counted toward the minor in English.

Required Courses: (9 units)

Rhetoric and Writing 500W*, Advanced Composition
Rhetoric and Writing 503W*, Technical Writing
Rhetoric and Writing 504*, Problems in Technical Communication

Recommended Courses: Students should consult with the director of the program before selecting any courses so that an individualized program can be developed. Students with technical or scientific backgrounds should concentrate their coursework in writing. Those with

nontechnical or nonscientific backgrounds should concentrate on either a technical or scientific specialty. Rhetoric and Writing 506, Writing Internship, is recommended for all students. A maximum of six units of transfer credit may be applied to the program. (12 units.)

Courses

LOWER DIVISION COURSES (Non-Baccalaureate Credit)

Rhetoric and writing courses numbered below 100 may not be used to satisfy graduation requirements.

92A. Developmental Writing: Fundamentals of Writing (3) Cr/NC/SP I, II, S

Academic prose, emphasizing the purpose, structure, and style of academic essays. Designed to improve student skills in planning, drafting, revising, and editing essays. Open to students who have not satisfied the SDSU lower division writing competency requirement. Students attaining a score of 8 or better on the final examination earn a grade of "Cr" and satisfy the SDSU lower division writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of "SP." Students receiving an "SP" grade should enroll in Rhetoric and Writing 92B. Not open to students with credit in Rhetoric and Writing 97A. (Formerly numbered Academic Skills 92A.)

*92B. Developmental Writing: Intermediate (3) Cr/NC I, II, S

Prerequisite: Open to students who have earned "SP" (satisfactory progress) in Rhetoric and Writing 92A but have not satisfied the Writing Competency requirement.

Individualized instruction in composition. Evaluation based on student writing portfolio. Credit in Rhetoric and Writing 92B satisfies the SDSU lower division writing competency requirement. Not open to students with credit in Rhetoric and Writing 97B. (Formerly numbered Academic Skills 92B.)

93. Developmental Reading: Intensive Learning Experience (ILE) (3) Cr/NC I, II

Improvement of individual reading effectiveness, emphasizing textbook mastery and incorporating texts from the General Education curriculum. Reading comprehension—not speed—is stressed. (Formerly numbered Academic Skills 93.)

94. Developmental Writing for International or Bilingual Students (3) Cr/NC/SP I, II

Intermediate written English with emphasis on problems of non-native speakers; discussion of sentence, paragraph, and essay writing skills. Open only to ESL students who have not satisfied the SDSU Writing Competency requirement. Students attaining a score of 8 or better on the final examination earn a grade of "Cr" and satisfy the SDSU lower division writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of "SP." Students receiving an "SP" should enroll in Rhetoric and Writing 95. (Formerly numbered Academic Skills 94.)

* Additional prerequisites required. These courses formerly offered in English.
** Rhetoric and Writing 92B is not offered at the Imperial Valley Campus. Students who do not attain a Cr in Rhetoric and Writing 92A at the Imperial Valley Campus should repeat Rhetoric and Writing 92A.

95. Developmental Writing for International or Bilingual Students (3) Cr/NC/SP I, II

Advanced written English with emphasis on problems of nonnative speakers; discussion of audience, purpose, and style; advanced grammar and essay writing. For students who have attained Satisfactory Progress (SP) in Rhetoric and Writing 94, but have not satisfied the SDSU lower division writing competency requirement. Students attaining a score of 8 or better on the final examination earn a grade of "Cr" and satisfy the SDSU lower division writing competency requirement. (Formerly numbered Academic Skills 95.)

97A. Developmental Reading and Writing (Intensive Learning Experience) (4) Cr/NC/SP I

Three lectures and two hours of activity.
Students enrolled in Rhetoric and Writing 97A must also be enrolled in the Intensive Learning Experience, which integrates instruction in the writing process and academic prose with the content of a General Education course. Rhetoric and Writing 97A is designed to provide students with writing and critical thinking skills essential to academic achievement. Emphasizes individualized instruction to meet the unique needs of each student.

The final examination in Rhetoric and Writing 97A is the Developmental Writing Proficiency Examination. Students attaining a score of 8 or better on the final examination earn a grade of "Cr" and satisfy the SDSU lower division writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of "SP." Students receiving an "SP" grade should enroll in Rhetoric and Writing 97A. Not open to students with credit in Rhetoric and Writing 92A. (Formerly numbered Academic Skills 97A.)

97B. Developmental Reading and Writing (Intensive Learning Experience) (4) Cr/NC/SP II

Three lectures and two hours of activity.
Prerequisites: Open only to students who earned "SP" (satisfactory progress) in Rhetoric and Writing 97A but have not satisfied the SDSU lower division writing competency requirement.

Individualized instruction in intermediate writing skills. Credit in Rhetoric and Writing 97B satisfies the SDSU writing competency requirement. Not open to students with credit in Rhetoric and Writing 92B. (Formerly numbered Academic Skills 97B.)

98. Mini-Course: Selected Topics (1) Cr/NC

Assorted short courses which will meet three hours a week for five weeks and will cover a variety of academic skills through intensive—lectures and laboratory work. Evaluation based on student writing portfolio.

Suggested topics: Research paper, communication skills, research tools, vocabulary development, learning skills, spelling, grammar, and speed reading. See Class Schedule for specific content. Credit earned in courses from this series is not applicable to a bachelor's degree. (Formerly numbered Academic Skills 98.)

A. Learning Skills C. Communication Skills

LOWER DIVISION COURSES (Acceptable for Baccalaureate Credit)

100. College Composition (3) I, II (CAN ENGL 2)

International students are advised to take Linguistics 100.
Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements. (See Graduation Requirements section of catalog.) **Proof of completion of prerequisites required:** Copy of EPT or competency scores or verification of exemption; proof of Cr in Rhetoric and Writing 92A or 92B or 97A or 97B.

Principles of effective composition, rhetorical techniques for achieving clarity, interest, and effective organization and development of ideas, based on the reading and analysis of selected texts. Not open to students with credit in a higher numbered composition course or Africana Studies 120 or Linguistics 100 or Mexican American Studies 111B. (Formerly numbered English 100.)

200. Intermediate Composition (3) I, II

International students are advised to take Linguistics 200.
Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements and Rhetoric and Writing 100 or Africana Studies 120 or Linguistics 100 or Mexican American Studies 111B. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Further practice in expository writing, with emphasis on mastery of style and organization, problems of research. Not open to students with credit in Africana Studies 200 or Linguistics 200. Completion of Rhetoric and Writing 200 requires completion of the library workbook assignment. (Formerly numbered English 200.)

296. Experimental Topics (1-4) Cr/NC

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

305W. Academic Writing (3)

International students are advised to take Linguistics 305W.
Prerequisites: Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. It is strongly recommended that the course be taken at the beginning of the junior year, so that students have an opportunity to demonstrate their writing proficiency in upper division courses taken after they pass Rhetoric and Writing 305W. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

To develop proficiency in composing, under time constraints, substantial essays which analyze or explicate subjects previously investigated and discussed. Intended for students not majoring in English or Comparative Literature who have not fulfilled the Upper Division Writing requirement by examination. (Formerly numbered English 305W.)

496. Topics in Rhetoric and Writing Studies (1-3)

Selected topics. May be repeated once with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Directed Study (1-3) I, II

Prerequisites: Consent of instructor and approval of department chair.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

500W. Advanced Composition (3) I, II

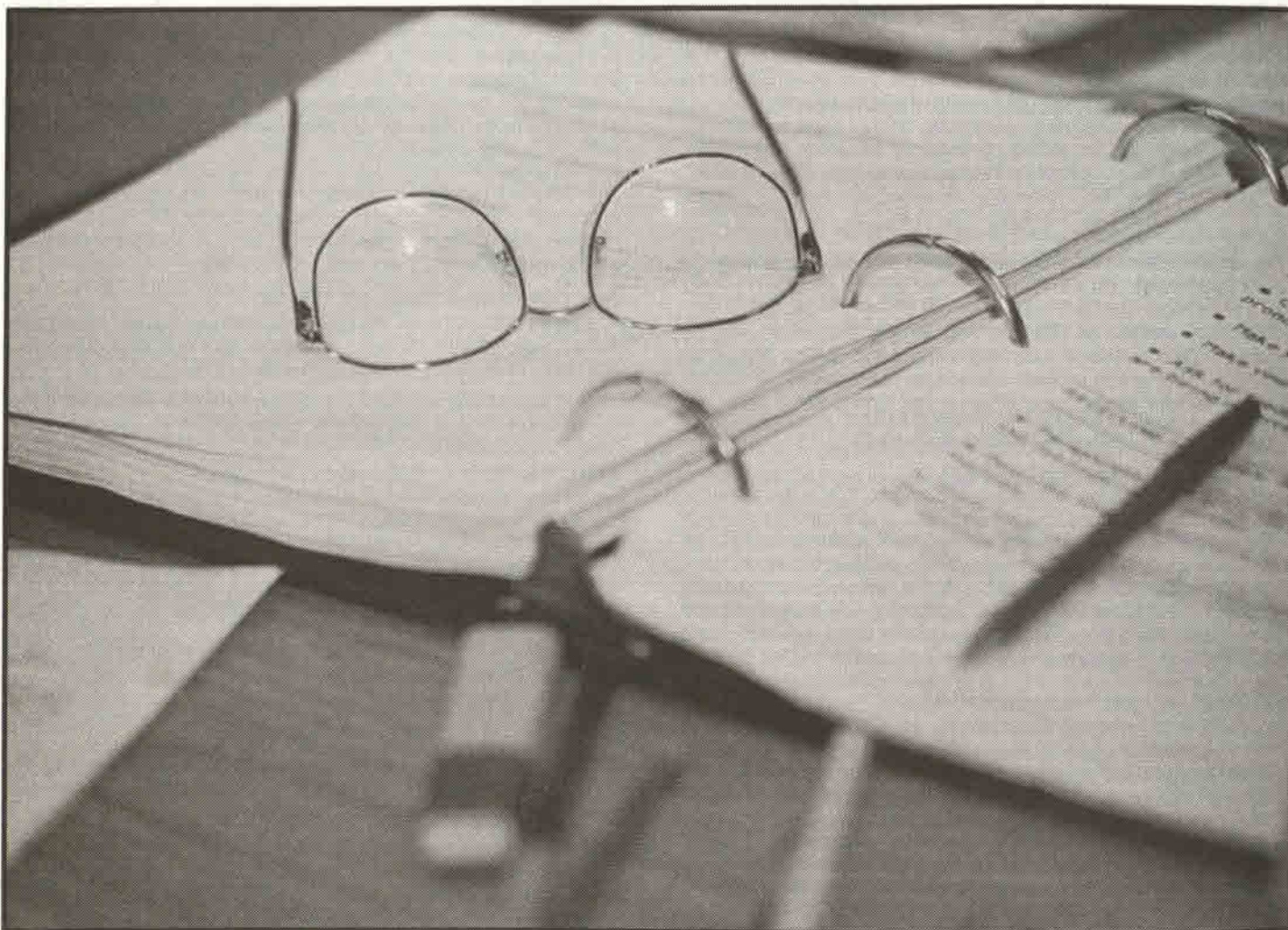
Prerequisites: Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

The theory and practice of expository writing, including the contributions of semantics, rhetoric, and logic. (Formerly numbered English 500W.)

503W. Technical Writing (3) I, II

Prerequisites: Rhetoric and Writing 200. Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Principles and practices of writing required in technical and scientific fields of professions, including technical writing style and rhetorical strategies of designing technical documents. (Formerly numbered English 503W.)



504. Problems in Technical Communication (3) I, II

Prerequisite: Rhetoric and Writing 503W. Recommended: Graphics or drawing course.

Problems in technical writing, including graphics, printing, and reproduction of technical documents; types of technical communication, including reports, manuals, and proposals; manuscript editing and proofreading; audience analysis and readability; writing and recognition of clear technical prose. (Formerly numbered English 504.)

506. Writing Internship (3) Cr/NC I, II, S

Prerequisites: Consent of instructor and successful completion of a 500-level writing course with a grade of B or better.

Intensive experience in writing and editing documents while student is under the joint supervision of an academic instructor and a professional coordinator. (Formerly numbered English 506.)

509. Introduction to the Teaching of Composition (3) I, II

Prerequisite: Consent of instructor based on writing sample and/or test.

Techniques for teaching and evaluation of written composition. Provides a theoretical base for these techniques. (Formerly numbered English 509.)

GRADUATE COURSES
Refer to the Graduate Bulletin.

NOTE:

Rhetoric and Writing 97A is equivalent to Rhetoric and Writing 92A.

Rhetoric and Writing 97B is equivalent to Rhetoric and Writing 92B.

Enrollment in Rhetoric and Writing 97A and 97B is restricted to students participating in the Intensive Learning Experience program.

OFFICE: Business Administration 304

TELEPHONE: (619) 594-6313

Faculty

Emeritus: Dukas, Fetzer, Kozlik

Acting Chair: Benkov

Associate Professor: Shapovalov

Offered by the Department of German and Russian Languages and Literatures

Major in Russian with the B.A. degree in liberal arts and sciences.

Teaching major in Russian for the single subject teaching credential in foreign languages.

Minor in Russian.

The Major

Russian is one of the most widely used languages in the world today. About one-third of all scientific articles are published in Russian. Some of the world's great literature has been produced by Russian writers such as Tolstoy, Chekhov, and Solzhenitsyn. The political impact of the Soviet Union is felt internationally. Knowledge of Russian will provide students with a better understanding of one of the world's important and influential countries.

The Russian program offers a wide range of courses, including specialized courses in literature and linguistics. This major is useful preparation for graduate programs in international trade, international law, librarianship, public administration, and journalism. This program requires intensive scholarly investigation and may prepare students for careers in which fluency in Russian is essential.

Knowledge of Russian, particularly when combined with business related courses, is becoming a valuable asset. Many American firms have opened offices in Moscow and Leningrad, and the volume of American trade with Russia has been growing at a rapid pace. As a result, there are indications of an expanding interest in Russian graduates by American business organizations with employment possibilities in the United States and Russia.

Other career possibilities include Russian specialists, generally employed by the federal government; high school teachers; librarians; translators; and interpreters.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Russian Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 11061)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in Russian courses can apply to the degree.

Students majoring in Russian must complete a minor in another field to be approved by the departmental adviser in Russian.

Preparation for the Major. Russian 100A, 100B, 200A, 200B, 211. (23 units)

Foreign Language Requirement. The foreign language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Russian

In the College of Arts and Letters

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units in Russian to include Russian 301, 304, 305A-305B, 430 and nine units in 500-level courses in Russian.

Russian Major

For the Single Subject Teaching Credential in Foreign Languages With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 11061)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education. For students completing the single subject teaching credential program, no more than 54 units in Russian courses can apply to the degree.

This major may be used by students in policy studies or teacher education as an undergraduate major for the B.A. degree in liberal arts and sciences. A minor in another field approved by the departmental adviser in Russian is required for the degree.

Preparation for the Major. Russian 100A, 100B, 200A, 200B, 211. (23 units)

Foreign Language Requirement. The foreign language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 30 upper division units in Russian to include 301, 303, 304, 305A-305B, 430, 501, 580; and six units in 400- or 500-level courses in Russian.

Proficiency Examination. Before taking a student teaching assignment in Russian, the candidate for the credential may be required to pass an oral and written proficiency examination in the language, administered by the Department of German and Russian Languages and Literatures. The candidate must consult with the chair of the Department of German and Russian Languages and Literatures concerning this examination.

Russian Minor

The minor in Russian consists of a minimum of 16 units in Russian to include Russian 200B and six units of upper division courses in Russian.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Russian to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Russian 200A or the equivalent level of achievement. The usual sequence of coursework is Russian 100A, 100B, and 200A. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. **Four years** of high school level language count as the equivalent of three college semesters, thus fulfilling the foreign language requirement.

Courses

LOWER DIVISION COURSES

Native speakers of Russian will not receive credit for taking lower division courses in Russian except with advance approval from the department.

All lower division courses in Russian are taught in Russian.

No credit will be given for Russian 100A, 100B, 200A, 200B, 301, 302 taken out of sequence.

100A. First Course in Russian (5) I

Pronunciation, oral practice, reading, essentials of grammar. Not open to students who have completed three years of high school Russian unless the third course was completed five or more years ago.

100B. Second Course in Russian (5) II

Prerequisite: Russian 100A or two years of high school Russian. Continuation of Russian 100A. Not open to students who have completed four years of high school Russian unless the fourth course was completed five or more years ago.

200A. Third Course in Russian (5) I

Prerequisite: Russian 100B or three years of high school Russian. Practical application and review of the basic principles of Russian. Oral practice, reading of cultural material in Russian. (Formerly numbered Russian 201.)

200B. Fourth Course in Russian (5) II

Prerequisite: Russian 200A. Continuation of Russian 200A.

211. Intermediate Conversation (3) I

Prerequisite: Russian 200A. Practice in the spoken language with emphasis on the articulation of Russian sounds; practical vocabulary; conversation on everyday cultural topics.

UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division courses in Russian are taught in Russian unless otherwise stated.

301. Advanced Grammar and Composition (3)

Prerequisites: Russian 200B; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. **Proof of completion of prerequisites required:** Copy of transcript.

Advanced grammar and stylistics; intensive writing practice; reports based on outside reading.

303. Political and Business Russian (3)

Prerequisite: Russian 301.

Commercial and political Russian, with emphasis on international relations and socioeconomic aspects of contemporary Russia.

304. Phonetics of Spoken Russian (3)

Prerequisites: Russian 200B and 211.

Sound system of Russian with attention to variety of intonation patterns. Training in oral communication and self-expression through practical drills with emphasis on improvement of pronunciation and intonation. Not open to students with credit in Russian 581.

305A-305B. Survey of Russian Literature (3-3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Russian literature from its beginnings, with emphasis on nineteenth and twentieth centuries. Taught in English with readings in English.

430. Russian Civilization (3) I, II

Prerequisite: Russian 200B. **Proof of completion of prerequisite required:** Copy of transcript.

Development of Russian culture; emphasis on painting, music, architecture, and literature within a social context. Not open to students with credit in Humanities 330.

499. Special Study (1-3) I, II

Prerequisites: Fifteen upper division units in the major with an average of B (3.0) or better and consent of instructor. **Proof of completion of prerequisites required:** Copy of transcript.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

501. Translation (3)

Prerequisite: Russian 301.

Comparison of Russian and English through translation of a variety of texts from Russian to English and from English to Russian.

555. Russian Short Story, Drama and Poetry of the Nineteenth Century (3)

Prerequisite: Russian 200B.

Development of the Russian short story, drama and poetry of the nineteenth century.

561. Russian Novel of the Nineteenth Century (3)

Prerequisite: Russian 200B.

Development of the Russian novel of the nineteenth century.

563. Russian Literature of the Twentieth Century (3)

Prerequisite: Russian 200B.

Poetry, prose and drama of the twentieth century.

580. Russian Syntax and Stylistics (3)

Prerequisite: Russian 301. **Proof of completion of prerequisite required:** Copy of transcript.

The structure of contemporary Russian.

596. Topics in Russian Studies (3) I, II

Prerequisite: Russian 305B (for literary topics). **Proof of completion of prerequisite required:** Copy of transcript.

Topics in Russian language, literature, or linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES Refer to the Graduate Bulletin.

Social Science

In the College of Arts and Letters

OFFICE: Adams Humanities 4192

TELEPHONE: (619) 594-6344

Faculty

Social Science is administered through the Social Science Committee.

Coordinator: O'Brien (History)

The Major

Social science is a multidisciplinary program, encompassing the faculties and courses of twelve departments—Africana Studies, American Indian Studies, Anthropology, Economics, Geography, History, Mexican American Studies, Political Science, Psychology, Religious Studies, Sociology, and Women's Studies. The major aims are to promote an appreciation for the interrelatedness of these disciplines by exposing students to their varied methodologies. This program, therefore, is especially appropriate for students who wish to be liberally educated in a broad spectrum of understandings, insights, and appreciations. Students may devise their own focus or select either the emphasis outlined in Africa and the Middle East or in Environment.

The social science major is appropriate for many beginning positions in government and, when supplemented with a business administration minor, for careers in business. For students who continue in graduate study after receiving their bachelor's degrees, it is an excellent preparation for graduate and professional programs in law, social work, public administration, librarianship, counseling, business, and the ministry. Students who complete the Single Subject Teaching Credential in Social Science are prepared to teach world history, United States history, geography, government, and economics in high school.

The social science major with an emphasis in environment provides an opportunity for the student to gain an interdisciplinary perspective on some of the major quality of life, public health, and natural resource conservation problems facing the world today. The course offerings available in the emphasis will provide a basic understanding of the nature of the problems, as well as give more specific insights into such practical aspects as the economics and politics associated with these environmental challenges. The large range of courses from which students may choose allows them latitude to pursue their individual interests.

Students selecting the emphasis in environment will be prepared to pursue careers in a wide variety of fields associated with natural resource management, such as county, state, or federal agencies that manage parks, recreation areas, or other public lands. Entry-level jobs with planning or consulting firms are other possibilities. The emphasis will also provide students with a broad background that will be useful in a variety of graduate programs dealing with the natural environment or with natural resource conservation.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Social Science Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22011)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Three units of statistics selected from Economics 201, Mathematics 250, Political Science 201, Psychology 270, or Sociology 201. A six-unit sequence in each of three of the following departments selected from: (1) Anthropology 101, 102; (2) Economics 100, 101, 102; (3) Geography 101, 102; (4) History 105, 106, 110A-110B, 115A-115B; (5) Mexican American Studies 110A-110B, 120A-120B; (6) Political Science 101, 102, 103; (7) Sociology 101, 150. Statistics courses taken in a social science department may not be used in fulfillment of that department's six-unit sequence. (21 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements." Spanish is recommended for those planning to work in this part of the United States.

Upper Division Writing Requirement. Passing the University Writing Examination or Anthropology 396W or Sociology 396W with a grade of C (2.0) or better.

Major. A minimum of 33 upper division units to include a 15-unit specialization in one department and the remaining 18 units from among three additional departments. Students may specialize in anthropology, economics, geography, history, political science, sociology, or, under certain conditions listed below, Mexican American studies. The remaining 18 units must be taken from three separate departments other than the department of specialization. Students who specialize in anthropology, economics, geography, history, political science or sociology may take a maximum of six units in Africana studies or American Indian studies or Mexican American studies or religious studies or psychology or women's studies from courses listed below.

Students specializing in Mexican American studies must select courses from Mexican American Studies 301, 303, 320, 350A-350B, 480.

Students with a 15-unit specialization in Mexican American studies must take the remaining 12 lower division units and 18 upper division units in anthropology, economics, geography, history, political science, or sociology.

Only students with a specialization in anthropology, economics, geography, history, political science or sociology may take a maximum of six units in the major from Africana studies or American Indian studies or Mexican American studies or psychology or religious studies or women's studies. These six units can only be selected from the following courses:

Africana Studies 331, 380, 445, 470, 471A, 471B.

American Indian Studies 303, 400, 440.

Mexican American Studies 301, 303, 320, 350A-350B, 480.

Psychology 320, 321, 322, 330, 340, 350, 351, 452, 453, 454, 455.

Religious Studies 301, 305, 318, 340, 353, 363, 365, 401, 403.

Women's Studies 310, 320, 325, 340, 341A-341B, 360, 370, 375, 530, 580.

Emphasis in Africa and the Middle East

The adviser for this emphasis is Dr. Marcia K. Hermansen, Department of Religious Studies.

Preparation for the Major. History 100, 101, and six units selected from Anthropology 101, 102; Comparative Literature 270A, 270B; Economics 101, 102; Geography 101, 102. (12 units)

Students should note that a number of the upper division required and recommended courses listed below have lower division prerequisites, but these prerequisites do not constitute requirements per se for the completion of the major.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Students are encouraged to meet the foreign language competency requirement for the social science major by taking a language appropriate to their interests in African or Middle Eastern studies. Refer to the section of this catalog on "Graduation Requirements."

A minor is not required with the major.

Upper Division Writing Requirement. Passing the University Writing Examination or Anthropology 396W or Sociology 396W with a grade of C (2.0) or better.

Major. A minimum of 30 upper division units, selected with the consent of the adviser, to include at least 15 units in anthropology, economics, geography, history, political science or religious studies,

or a combination of 15 units in art, comparative literature, humanities, and religious studies.

Required courses: Anthropology 449; Humanities 450 or 460; six units from History 473A, 473B, 475A, 475B, and 574; and Political Science 363 or 364. In addition, the following courses are recommended: Anthropology 350, 424, 529; Economics 365, 489; Political Science 361, 481; Religious Studies 340.

Emphasis in Environment

The adviser for this emphasis is Dr. Philip R. Pryde, Department of Geography.

Preparation for the Major. Biology 100 and 100L; a six-unit sequence in each of three of the following fields: (1) anthropology, (2) economics, (3) geography, (4) history, (5) political science, and (6) sociology, (22 units)

Courses recommended for these sequences are as follows: Anthropology 101 and 102, Economics 101 and 102, Geography 101 and 102, History 105, 106, or 110A-110B or 115A-115B, Political Science 101 and 102, Sociology 101 and 150. Additional recommended courses include Biology 315 and Geological Sciences 100 and 101.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or Anthropology 396W or Sociology 396W with a grade of C (2.0) or better.

Major. A minimum of 30 upper division units to include nine units selected from Economics 452, 453, 454 or 489, Geography 370 or 378, History 441 or 540, Political Science 334 or 335, three additional units from this list; and 18 units from at least three departments selected from Economics 452, 453, or 454; Geography 370, 378, 409, 570, 571, 573, 574, 575, 577; History 441, 540; Political Science 334, 335; Sociology 350, 557. Recommended: Biology 315, 324, 359, 454, 464A, 464B; Geological Sciences 301, 303; Community Health Education 350; Physics 301; Recreation 305.

Social Science Major

For the Single Subject Teaching Credential
With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22011)

This program is subject to approval of the Commission on Teacher Credentialing.

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education.

This major may be used by students in policy studies or teacher education or as undergraduate for the B.A. degree in Liberal Arts and sciences.

Preparation for the Major. Twenty-four units distributed as follows: Economics 101, 102; Geography 101, 102; History 100, 101; Political Science 101 and 102.

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements." Spanish is recommended for those planning to work in this part of the United States.

Upper Division Writing Requirement. Passing the University Writing Examination or Anthropology 396W or History 430W or Sociology 396W with a grade of C (2.0) or better.

Major. A minimum of 39 upper division units distributed as follows:

United States: Twelve units to include History 410A-410B and six units from Africana Studies 470* or 471A* or 471B*; American Indian Studies 420* or 440*; History 422*, 442B, 530, 533B, 540, 544B, 545B, 546B, 538 or 541A or 541B or 549; Mexican American Studies 350B* or 375*; Women's Studies 341A* or 341B*.

American Government and Politics: Three units selected from Africana Studies 321*, 322*, 380*; American Indian Studies 400*; Mexican American Studies 301*; Political Science 305, 321, 334, 335, 347A, 348, 406, 436, 531, 537; Women's Studies 370*, 375*.

World History: Nine units distributed as follows:

Three units each selected from two of the following areas:

Africa and the Middle East: History 473B, 475A, 475B, 574.

Asia: History 420, 421, 567, 570.

Latin America: History 415A, 415B, 551A, 551B, 555, 557; Mexican American Studies 350A*.

Three units selected from:

Europe: History 407A, 407B, 440, 500A, 500B, 503A, 503B, 506, 507, 511A, 511B, 512A, 512B; Women's Studies 340*.

International Politics: Three units selected from International Security and Conflict Resolution 300; Political Science 356, 359, 361, 363, 364, 375, 478, 481, 479, 566, 568; Women's Studies 580*.

Economics: Three units selected from Economics 330, 336, 338, 365, 490.

Geography: Three units selected from Geography 312, 321, 370.

Additional Social Science Courses: Three units selected from Africana Studies 331*, 420*, 452*; American Indian Studies 320*, Anthropology 350, 410, 432, 529; Mexican American Studies 303*, 320*, 480*; Sociology 350, 355*, 403, 421, 433, 444, 450, 457, 522, 537, 557; Women's Studies 310*, 320*, 485*, 515*, 521*, 536*.

Elective: Three units selected from any course listed above.

* May be used to satisfy requirement for ethnic and women's studies. The six units needed to satisfy this requirement must come from two separate departments.

Courses

LOWER DIVISION COURSES

201A. Statistical Computer Package: SPSS (1) Cr/NC I, II

Eleven hours of supervised laboratory instruction and nineteen hours of supervised technical activity.

Prerequisite: Credit or concurrent registration in an elementary statistics course.

Organization and modification of numerical data for computer analysis. Use of selected statistical procedures from the Statistical Package for the Social Sciences (SPSS) including frequency distributions, crosstabulation, t-tests, correlation and regression. Maximum combined credit of three units of Social Science 201A, 201B, 201C, 201D applicable to a bachelor's degree.

201B. Statistical Computer Package: BMDP (1) Cr/NC I, II

Eleven hours of supervised laboratory instruction and nineteen hours of supervised technical activity.

Prerequisite: Credit or concurrent registration in an elementary statistics course.

Organization and modification of numerical data for computer analysis. Use of selected statistical procedures from the Biomedical Computer Programs (BMDP) including data description, t-tests, multi-way frequency tables, multiple linear regression, analysis of variance and covariance, and nonparametric procedures. Maximum combined credit of three units of Social Science 201A, 201B, 201C, 201D applicable to a bachelor's degree.

201C. Statistical Computer Package: TSP (1) Cr/NC I, II

Eleven hours of supervised laboratory instruction and nineteen hours of supervised technical activity.

Prerequisite: Credit or concurrent registration in an elementary statistics course.

Organization and modification of numerical data for computer analysis. Use of selected statistical procedures from the Times Series Processor (TSP) computer program including ordinary least squares regression, residual analysis, autocorrelation correction, correction for heteroskedasticity and two stage least squares regression. Maximum combined credit of three units of Social Science 201A, 201B, 201C, 201D applicable to a bachelor's degree.

201D. Statistical Computer Package: SAS (1) Cr/NC I, II

Eleven hours of supervised laboratory instruction and nineteen hours of supervised technical activity.

Prerequisite: Credit or concurrent registration in an elementary statistics course.

Organization and modification of numerical data for computer analysis. Use of selected statistical procedures from the SAS computer program including frequency distributions, crosstabulation, correlation, regression, analysis of variance, t-tests, and nonparametric procedures. Maximum combined credit of three units of Social Science 201A, 201B, 201C, 201D applicable to a bachelor's degree.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.



Social Work

In the College of Human and Health Services

OFFICE: Hepneer Hall 119
TELEPHONE: (619) 594-6865

Accredited by the Council on Social Work Education.

Faculty

Emeritus: Baily, Brennen, Butler, Cohen, Guidry, Haworth, Herman, Ishikawa, Kahn, Kukkonen, Maxwell, Ontell, Raymer, Reichert, Riehrman, Sardinas, Schmidt
Director: Harbert
Associate Director: Siman
Professors: Davis, Dean, DeGennaro, Griffin, Harbert, Kelley, Stanford, Stoesz, Valle, Zuniga
Associate Professors: Ellis, Harris, Jones, Pritchard, Siman
Assistant Professors: Ajemian, Finnegan, Lu, Sucato
Lecturers: Landsverk, Letourneau, Milstein, Siegel, Smith, Sproul, Stanger, Walden O'Cull

Offered by the School of Social Work

Master of Social Work degree.
Master of Social Work and Master of Public Health degrees (concurrent program).
Major in social work with the B.A. degree in liberal arts and sciences.
Minor in social work.
Early intervention specialist certificate.
Human services paraprofessional certificate.

The Major

The profession of social work is deeply committed to the relief of human distress and inequality, and to the assistance of people in the meeting of their social, psychological, and economic needs. The objective of the School of Social Work is to assist students in acquiring the essential knowledge, philosophy, and basic skills required for beginning professional social work practice; namely, to develop a philosophy which recognizes individual human welfare as the purpose and goal of social policy, to develop an awareness and understanding of human behavior, to attain a level of competence in practice methods and skills, to acquire knowledge in methods of research in social work, and to accept responsibility for continued development of competence in their practice after they have completed their academic education.

The social work major is designed to apply to a wide variety of social work practice settings. Preparatory coursework for the major includes a basis in the liberal arts and sciences. The upper division curriculum is intensive, encompassing coursework in cultural pluralism, human behavior, social policy and program evaluation, social work practice, and social work research. Required field experience is an integral part of the program.

The B.A. degree prepares students for immediate employment in those social work positions which do not require graduate level preparation, as well as providing the foundation for graduate study.

Social Work Major

With the B.A. Degree in Liberal Arts and Sciences
(Premajor Code: 21040) (Major Code: 21041)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog entitled "Graduation Requirements." No more than 51 units in social work courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. All new students to this program are considered premajors and are assigned the 21040 premajor code. The code will stay in effect until students complete the 27 unit preparation for the major coursework. Students must come to the Undergraduate Adviser to complete a change of major form to the 21041 major code in order to take the upper division courses (exceptions to this are SWORK 350 and 360 which can be taken without the major code change). Students must change to the major code prior to REG-LINE registration or the computer will not permit access to any social work course. The following nine courses constitute the preparation for the major: Social Work 110, 120, 130; Biology 100 or any three units in a human biology course; Economics 100 or three units of any economics course; Community Health Education 101; Psychology 101; Sociology 101; Psychology 270 or Sociology 201 or Mathematics 250. All preparatory courses must be completed before taking 300 or 400 level social work courses in the major. (27 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 42 upper division units, in a prescribed course sequence, to include Social Work 350, 360, 370A, 370B, 381, 483A-483B, 489A (6 units), 489B (6 units), 491, and six units of upper division electives in social work.

Prescribed Course Sequence: Listed below is the expected course sequence students should utilize in the major. All 300-level courses must be completed with an overall 2.0 GPA before students will be allowed to enroll in Social Work 483A and 489A.

JUNIOR YEAR		SENIOR YEAR	
SWORK 360	SWORK 350	SWORK 483A	SWORK 483B
SWORK 370A	SWORK 370B	SWORK 489A	SWORK 489B
SWORK 381	Elective	SWORK 491	Elective

Field Practicum. All students must enroll in field practicum. This is a 16-hour per week internship at a School of Social Work arranged and supervised social work community agency (students are not permitted to locate their own agencies). Students begin field practicum during the fall semester only and must concurrently enroll in Social Work 483A and 489A. The continuation of field practicum is offered in spring semester only when students must concurrently enroll in Social Work 483B and 489B. These courses are sequential and students must complete both "A" courses before going on to the two "B" courses. During the spring semester preceding enrollment in field practicum, students must obtain a field application from the school office (HH-119). In order to qualify for the internship, students must have completed all 300 level social work courses with a 2.0 GPA. The coordinator of field instruction evaluates each application to determine whether the student has met all requirements for admission to field practicum and assigns the student to an agency for internship. Students who do not file a field application by the deadline date will not be able to enter field practicum. Specific times and days of field practicum are arranged between the student and the assigned agency, but most agencies require daytime availability. Evening and weekend placements are not available. Students should arrange their schedules appropriately to meet these criteria.



Student Handbook

The School of Social Work has a student handbook for undergraduate majors. The handbook contains policies and procedures not specified in the catalog in addition to specific information to aid students in completing the social work major. Handbooks are available for sale at the Campus Store under Social Work.

Social Work Minor

The minor in social work consists of 24 units to include Psychology 101, Sociology 101, Social Work 110, 120, 350, 360, 370A, and three units selected from Social Work 351, 400, 410, or 420.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Human Services Paraprofessional Certificate

This certificate is designed specifically for individuals in recovery from any form of substance abuse who wish to pursue paraprofessional career opportunities in this field. A certificate in paraprofessional human services may be sought by ex-offenders and ex-substance abusers who: (a) do not meet the prerequisite requirements for a major in social work for the B.A. degree, but who are interested in pursuing a paraprofessional career in human services; (b) are not interested in or able to complete nonprofessional offerings

which are part of the regular degree program; (c) have already earned a bachelor's degree and are not interested in a second degree.

Students are admitted to the certificate program as regular students of San Diego State University. Students must apply to the program as well as to the university. Candidacy for the certificate program will be established by the undergraduate social work program adviser.

Awarding of the certificate requires completion of an approved pattern of ten courses (30 units) with a minimum grade point average of 2.0. The following is the prescribed 30-unit course sequence for the certificate:

SEMESTER 1 (15 units)	SEMESTER 2 (15 units)
Community Health Education 574	Community Health Education 331
Social Work 360	Social Work 350
Social Work 381	Social Work 370A*
Social Work 410*	Social Work 382
Social Work 489A*	Social Work 489B*

Course offerings under this program may only be taken in the on-campus program. Fifteen units in the certificate program may be counted toward the major in social work, but may not be counted toward the minor. For further information, consult the undergraduate social work program adviser.

* Prerequisites waived for these courses.

Courses

LOWER DIVISION COURSES

110. Human Societies and Social Problems (3) I, II

Perspectives on problems of human societies and their relation to contemporary social problems and issues. Emphasis on distributive problems and forms of stratification.

120. Explorations in Human Services (3) I, II

Two lectures and three hours of fieldwork.
Orientation to the field of social welfare. Readings, class discussions and participation in social work activities on campus and in the community. Work as a volunteer in the agency is required in a variety of field settings. Scheduling is flexible.

130. Marriage and Contemporary Human Relations (3) I, II

Developing understanding and ability to evaluate various concepts, attitudes and value systems as they relate to marriage and other contemporary human relationships. Assist students in acquiring abilities to develop and sustain interpersonal relationships.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES
(Intended for Undergraduates)**350. Cultural Pluralism (3) I, II**

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Understanding of the American society as a culturally pluralistic social process and an understanding of social work as a culturally directed profession with emphasis on the concept of cultural identities created by one's values, ideologies, knowledge and behavior.

351. Perspectives on Life in Urban Communities (3) I, II

Characteristics and processes of contemporary urban communities as they shape the lifestyles of people. Urban communities examined in terms of their functional and dysfunctional capacities for meeting human needs.

360. Perspectives on Human Behavior and the Social Environment (3) I, II

Prerequisite: Completion of General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Interdisciplinary, comparative, and critical approach to explanatory theories of human behavior. Focus on interrelatedness of factors that affect the nature and quality of human life with linkage to the social welfare of individuals, families and communities.

370A. Social Policies and Social Issues (3) I, II

Prerequisites: Social Work 110 and 120.

Major social forces and institutions as they relate to and determine social policy emphasizing social welfare services in an industrialized society.

370B. Social Provision and Program Evaluation (3) I, II

Issues and dilemmas related to the provision of social services, and analysis of social programs. Evaluating effectiveness and efficiency of social service programs and social work services.

381. Seminar in Basic Skills in Social Work Practice (3) I, II

Prerequisite: Junior standing.

Helping skills in social work practice make use of assessment and interviewing theory. Addresses written, verbal interpersonal skills with individuals, small groups and communities with regard to assessment in social work practice.

382. Seminar in Intermediate Skill Development for Social Workers (3) I, II

Prerequisite: Social Work 381.

Students are expected to participate in simulation of social work practice situations, activities and skills. Presentation of research and theory will be interwoven with structured classroom experiences.

400. Social Work Practice: Child Welfare (3) I, II

Prerequisite: Social Work 370A.

Problems of children and supportive, supplementary and substitute social services which have been developed to meet these needs.

410. Social Work Practice: Family Issues (3) I, II

Prerequisite: Social Work 370A.

Issues relative to social work intervention with families, including major social work and interpersonal family problem situations. Family practice methods and social service provisions, and social policy issues around family needs.

420. Aging and the Social Services (3) I, II

Prerequisite: Social Work 370A.

Contemporary status, social problems and needs, and developmental theories of the elderly population. Social services delivery system which serves the elderly.

483A-483B. Integrating Seminar (3-3) I, II

Prerequisites: Social Work 370B and a 2.0 grade point average in all junior level social work courses required in the major; concurrent registration in Social Work 489A for 483A; concurrent registration in Social Work 489B for 483B.

The integration of social work theory, principles and practice techniques.

489A-489B. Field Experience in Social Work (3-9, 3-9) Cr/NC I, II

Prerequisites: Completion of all 300-level social work courses with a minimum 2.0 grade point average; concurrent registration in Social Work 483A for 489A; concurrent registration in Social Work 483B for 489B; arrangements made during prior semester with coordinator of field instruction.

A minimum of 12 units (6 in Social Work 489A and 6 in Social Work 489B) is required. Students spend 16 hours per week per semester in practice field assignments in selected social work agencies or settings.

491. Methods of Social Work Research (3) I, II

Prerequisite: Social Work 370B.

Definition and purpose of research in social welfare and social work. Formulation of research problems, selecting a design and methodology; techniques of collecting, organizing, interpreting and analyzing data.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

497. Investigation and Report (3) I, II

Prerequisite: Consent of instructor.

Analysis of special topics in social welfare.

499. Special Study (1-3) Cr/NC I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSE
(Also Acceptable for Advanced Degrees)**596. Experimental Topics (1-4)**

Selected topics in social work. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Sociology

In the College of Arts and Letters

OFFICE: Nasatir Hall 203

TELEPHONE: (619) 594-5449

Faculty

Emeritus: Bloomberg, DeLora, El-Assal, Gillette, Johnson, Klapp, Milne, Mouratides, Sandlin, Somerville, Sorensen, Stephenson, Wendling
Chair: Wood
Professors: Cottrell, Emerick, Hohm, Hough, Ima, Kolody, Preston, Rumbaut, Scheck, Schulze, Winslow, Wood
Associate Professors: Buck, Chandler, Gay, Kennedy, Kirkpatrick, Werner
Lecturers: Clanton, Eaton

Offered by the Department

Master of Arts degree in sociology.

Major in sociology with the B.A. degree in liberal arts and sciences.

Minor in sociology.

The Major

Sociology is the scientific study of social life and the social causes and consequences of human behavior. Sociology's subject matter ranges from the intimate family to the hostile mob; from crime to religion, from the divisions of race and social class to the shared beliefs of a common culture, from the sociology of work to the sociology of sport. In fact, few fields have such broad scope and relevance.

Sociology seeks to understand the interaction of individuals with institutions and social organizations in which we are inextricably involved, and the norms, values, beliefs, and traditions that make social life possible and meaningful.

The Department of Sociology offers its majors a field internship program, which allows students to gain hands-on experience selected from a wide variety of community agencies and private business organizations. Many students have found permanent employment through their internships.

Employment opportunities for individuals with B.A. degrees in sociology are, as for all liberal arts graduates, quite varied. Many students work for various private and public agencies; some go on to graduate work in sociology; others go on to other graduate programs such as law, medicine, and social work. Sociologists with M.A. and Ph.D. degrees are generally employed at colleges and universities or government agencies. However, a growing number of sociologists with graduate degrees are being employed by private businesses.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Sociology Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22081)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in sociology courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Sociology 101, 150, 201. (9 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive courses of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or Sociology 396W with a grade of C (2.0) or better.

Major. Students may elect to major in one of four tracks: (a) General Sociology, (b) Applied Social Research, (c) Sociology of the Workplace or (d) Social Problems. The Applied Social Research track provides a more rigorous preparation in sociological research methods and students completing this course of study receive a special certificate at graduation. The Sociology of the Workplace track is specifically designed for students interested in personnel and management. The Social Problems track focuses upon sociological theory as applied to the study of crime, juvenile delinquency, mental illness, minority group relations, sex/gender roles, inequality, human sexuality, and other issues. Within these four tracks, upper division course requirements for the sociology major are as follows:

(a) General Sociology

A minimum of 30 upper division units in sociology to include Sociology 301, six units of electives, plus:

Three units from *each* of the following areas:

Methods: Sociology 406, 407, 408.

Social Psychology: Sociology 310, 410, 412, 441, or 517.

Theory: Sociology 401 or 403.

Twelve units from *one* of the following areas:

Family, Sexuality, and the Life Cycle: Sociology 320, 420, 421, 522, 527.

Social Change: Sociology 350, 351, 355, 450, 455, 456, 457, 555, 556, 557.

Social Control: Sociology 441, 443, 444, 445, 543.

Social Organization: Sociology 335, 338, 430, 433, 436, 531, 532, 537, 539.

No more than three units of Sociology 499 or 597 and six units of Sociology 496 or 596 may be applied toward the General Sociology track.

(b) Applied Social Research

A minimum of 30 upper division units in sociology to include Sociology 301, 406, 407, 408, and 505 (15 units), plus:

Three units from *each* of the following areas:

Internship: Sociology 480.

Social Psychology: Sociology 310, 410, 412, 441, or 517.

Theory: Sociology 401 or 403.

Six units of electives excluding Sociology 499 or Sociology 597.

(c) Sociology of the Workplace

A minimum of 30 upper division units in sociology to include Sociology 301, 320, 355, 430, 480, 531, 532 (21 units), plus:

Three units from *each* of the following areas:

Social Psychology: Sociology 310, 410, 412, 441, 441, or 517.

Theory: Sociology 401 or 403.

Three units of electives excluding Sociology 499 or Sociology 597.



(d) Social Problems

A minimum of 30 upper division units in sociology to include Sociology 301 and 18 units selected from Sociology 320, 350, 352, 355, 420, 421, 433, 436, 441, 443, 444, 445, 457, 480, 539, 543, 556, 557, and three units from **each** of the following areas:

Methods: Sociology 406, 407, or 408.

Social Psychology: Sociology 310, 410, 412, 441, or 517.

Theory: Sociology 401 or 403.

Sociology Minor

The minor in sociology consists of a minimum of 18 units to include Sociology 101 and 150 or 201; three units selected from Sociology 310, 410, 412, 441, or 517; and nine units selected from one of the following areas:

Applied Social Research: Sociology 505 required; and six units selected from 301, 406, 407, 408.

Family, Sexuality, and the Life Cycle: Sociology 320, 420, 421, 522, 527.

Sociology of the Workplace: Sociology 320, 355, 430, 480, 531, 532.

Social Change: Sociology 350, 351, 355, 450, 455, 456, 457, 555, 556, 557.

Social Control: Sociology 441, 443, 444, 445, 543.

Social Organization: Sociology 335, 338, 430, 433, 436, 531, 532, 537, 539.

Theory and Methods: Sociology 301, 305, 401, 403, 406, 407, 408, 505.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Sociology Honors Thesis

The Department of Sociology offers undergraduates of superior achievement the opportunity to write a sociology honors thesis leading to special recognition upon graduation. Sociology 490, Senior Honors Thesis, is open to students who rank in the top twenty percent of senior sociology majors and who have successfully completed Sociology 396W. Interested students should consult with the undergraduate advisers in the Sociology Department.

Courses

LOWER DIVISION COURSES

101. Introductory Sociology: The Study of Society (3) I, II (CAN SOC 2)

This course is prerequisite to all upper division courses in sociology. Major ideas, concepts, and methods in the study of society to include socialization, culture, social structure, social stratification, deviance, social control, and social change.

150. Introduction to Social Problems (3) I, II (CAN SOC 4)

Prerequisite: Sociology 101.

Contemporary social problems. Topics may include poverty, inequality, unemployment, crime and deviance, population and ecological problems, health, family issues, and the role of ideology and interest groups in the definition of social problems.

201. Elementary Social Statistics (3) I, II

Prerequisites: Course in intermediate algebra. Sociology 101; satisfaction of the Entry Level Mathematics requirement; and qualification on the Mathematics Departmental Placement Examination, Part IA.

Basic statistical techniques in sociology. Tables and graphs, measures of central tendency and variability, correlations, cross-classification, and introduction to multivariate analysis, sampling and statistical inference. Computer applications may be included. Students with credit or concurrent registration in the following lower division statistics courses will be awarded a total of four units for the two (or more) courses: Biology 215, Economics 201, Engineering 140, Mathematics 119, 250, Political Science 201, Psychology 270, and Sociology 201.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

301. Introduction to Social Research (3)

Prerequisite: Sociology 101.

Sociological research methodology. Techniques for testing and developing sociological theory, including hypothesis formulation, data collection, data analysis and writing a research report.

305. Sociological Laboratory II (1)

Three hours of laboratory.

Prerequisite: Must be taken in conjunction with a three-unit upper division course.

Application of experimental, quantitative or qualitative methods to sociological problems and the use of experimental, social simulation teaching techniques.

310. Love, Jealousy, and Envy: The Sociology of Emotions (3)

Prerequisite: Sociology 101.

Sociological understanding of human emotions developed through consideration of history of sex and love, social psychology of jealousy, and political implications of envy. Understanding and management of emotions analyzed from a sociological point of view.

320. Sex/Gender Roles in American Society (3) I, II

Prerequisites: Sociology 101; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Male-female relationships in occupational, educational, and familial settings. Changing concepts of femininity and masculinity. Images of men and women in literature, in the mass media, and in laws and judicial decisions.

335. Mass Communication and Popular Culture (3)

Prerequisites: Sociology 101, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Development of popular culture as influenced by the growth of mass media of communication, including popular music, television, film, newspapers, and advertising. The power, functions, and effects of the mass media in society and in social change.

338. Sociology of Religion (3)

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Forms of religious belief, knowledge, practice, and experience tied to different social arrangements and historical periods. Consequences of religion for society. Secularization and conversion processes in modern industrial societies.

350. Population and Contemporary Issues (3)

Prerequisites: Sociology 101; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Analysis of population processes as they affect and are affected by such contemporary issues as rapid world population growth, famine, ecological pressures, abortion, women's liberation, racial and ethnic relations, and illegal migration.

351. Comparative Societies (3)

Prerequisite: Sociology 101.

Human societies in world-historical perspective, from agrarian societies to the modern world system. Comparative study of societies based on changing technologies of production (agriculture, industrial) and different social structures (despotic, slave-owning, feudal, capitalist, socialist).

352. Contemporary Social Problems (3)

Prerequisites: Sociology 101, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Contemporary social problems in North America and other areas of the world.

355. Minority Group Relations (3) I, II

Prerequisites: Sociology 101; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Historical and comparative analysis of race and ethnic relations. Origins and maintenance of ethnic stratification systems; discrimination and prejudice; the adaptation of minority communities; role of social movements and government policies in promoting civil rights and social change.

396W. Writing in Sociology (3)

Prerequisites: Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript. Recommended: Sociology 101.

Instruction and practice in methods of writing in the social sciences. Principles of scientific discourse, research and report writing, and proposal writing.

401. Classical Sociological Theory (3)

Prerequisite: Sociology 101.

Theories of major European and American sociologists since the mid-nineteenth century, including Comte, Marx, Tocqueville, Spencer, Sumner, Durkheim, Pareto, Weber, Simmel, Mead, and Park. Relevance of classical social theory to contemporary sociology.

403. Contemporary Sociological Theory (3)

Prerequisite: Sociology 101.

Major figures and trends in American and European sociological theory since World War II, with emphasis on such schools as structural-functionalism, Marxism, symbolic interactionism, and critical theory.

406. Intermediate Social Statistics (3)

Prerequisites: Sociology 201 and 301.

Statistical techniques in the analysis of social research data and hypothesis testing, including analysis of variance, covariance, partial correlation, multiple and logistic regression, logic and log-linear models, discriminant and factor analysis. Practical application with the use of statistical packages.

407. Survey and Experimental Research Methods (3)

Prerequisites: Sociology 201 and 301.

Research process from research design through data processing, analysis, and interpretation. Quantitative research techniques including universe enumeration, sampling, questionnaire construction, scaling techniques, structured interviews, and experimental designs.

408. Qualitative Research Methods (3)

Prerequisites: Sociology 201 and 301.

Field research methods including interviewing, observation, participant observation and case studies. Problems in research design, gaining and maintaining rapport, and analysis and interpretation of qualitative data.

410. Social Psychology: Mind, Self, and Society (3)

Prerequisites: Sociology 101; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Major theories, problems, and findings concerning the relationship of the individual and society. Topics include consciousness and construction of meaning, self-concept and social identity, socialization and interaction, group behavior and group membership.

412. Social Construction of Reality (3)

Prerequisite: Sociology 101.

Analysis of reality as an ongoing social process. Creation and internalization of social worlds through language. Common sense and the multiple realities of everyday life. Dynamic emergence of social structure.

420. Sexuality in Modern Society (3) I, II

Prerequisite: Sociology 101.

Current research on contemporary sexual attitudes and behaviors, including changing norms in premarital, marital, and extramarital relationships. Controversies and implications for the individual and society.

421. The American Family and Its Alternatives (3)

Prerequisites: Sociology 101; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Changes in intimacy in American family. Selection of mating partners, spousal and parenting relationships, and alternatives to traditional family forms. Changing functions of the family viewed in historical perspective. Present realities and future prospects.

430. Social Organization (3)

Prerequisites: Sociology 101; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Social structure analyzed from the micro-level of roles and interaction to groups, institutions, complex organizations, societies, and the world as a social system. Basic concepts of sociology and their application in concrete case studies.

433. Wealth, Status, and Power (3)

Prerequisite: Sociology 101.

Distribution of wealth, power, privilege, and prestige in society. Causes, outcomes, and dynamics of inequality. Processes of upward and downward social mobility. Relationship of social class to politics, the economy, and other institutions.

436. Sociology of Health and Illness (3)

Prerequisite: Sociology 101.

Sociological perspectives on health, disease, and healing. Socialization, roles, conflict, and change in medical work settings. Health and medical institutions in comparative social contexts. Social transformation of American medicine.

441. Sociology of Mental Illness (3)

Prerequisite: Sociology 101.

Social, cultural, and political factors involved in definition of "madness" and control of mental illness in various societies. Review of research about the incidence, prevalence, and social ecology of mental illness and its distribution by social class.

443. Crime and Society (3) I, II

Prerequisite: Sociology 101.

Social origins, forms, and functions of criminal law. Sociological theories about the causes and consequences of crime. Measurement and distribution of violent crimes, property crimes, victimless crimes, white collar crime, and their impact on society.

444. Juvenile Delinquency (3) I, II

Prerequisite: Sociology 101.

Nature and extent of delinquency; the causative factors involved; methods of control and prevention, with special attention to protective and remedial measures offered by the school, home, juvenile court, correctional institutions and camps, probation and parole, and recreational agencies.

445. Sociology of Deviance (3) I, II

Prerequisite: Sociology 101.

Conformity and nonconformity; the relationship between individual liberty and social control; stigma and the labeling of deviant behavior such as prostitution, alcoholism, drug addiction, and crime.

450. Social Change (3)

Prerequisites: Sociology 101; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Social change at the interpersonal, institutional, and societal levels of analysis. Major economic, political, technological, and demographic forces that have shaped the contemporary world. Topics may include modernization, industrialization, urbanization, revolution, and prospects of social change in rich and poor nations.

455. Asian American Communities (3)

Prerequisite: Sociology 101.

Comparative analysis of selected Asian and Pacific Islander communities in the United States. Entrance, reception, response, and adaptation. Assessment of public policies of current issues and future prospects.

456. Collective Behavior: Crowds, Cults, and Craze (3)

Prerequisite: Sociology 101.

Processes of social behavior in masses and groups, including crowd behavior, mass hysteria, riots, mobs, fads, fashions, crazes, panics, rumors, and scapegoating. Sects and cults; social movements; the effects of mass communications and propaganda.

457. Protests, Reforms, and Revolutions (3)

Prerequisite: Sociology 101.

Revolutionary and reform movements in relationship to the larger society. Conditions leading to development of social movements, emergence of leadership, ideologies, strategies, recruitment of members, and social consequences; case studies.

480. Field Internship (3-6) I, II

Prerequisite: Sociology 101.

Supervised field placement of students in community agencies. Practical experiences related to studies within the sociology curriculum. Maximum credit six units.

490. Senior Honors Thesis (3) I, II

Prerequisites: Sociology 396W; open to sociology majors with senior standing and permission of the honors thesis adviser.

Directed research on a sociological topic chosen in consultation with the honors adviser, and completion of a senior honors thesis. Required of students wishing to graduate with a Certificate of Recognition in Sociology with Honors.

496. Experimental Topics (1-4) I, II

Prerequisite: Consent of the instructor.

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

505. Applied Sociological Research (3)

Prerequisite: Sociology 407 or 408.

Types and methods of applied sociological research; and an overview of their application in substantive areas. Practical research skills.

517. Life Crises and Coping: Sociological Perspectives (3)

Prerequisite: Sociology 101.

Social variation in the occurrence of life crises, personal and social coping strategies, and psychosocial outcomes.

522. The Family in Comparative and Historical Perspectives (3)

Prerequisite: Sociology 101. Recommended: Sociology 421.

Comparative study of selected family systems in the past and present. Family and parafamily forms in intentional communities of the nineteenth century compared with contemporary communal experiments. Ethnic and class differences in family organization.

527. Aging and Society (3)

Prerequisite: Sociology 101.

Status and roles of men and women in the second half of the life cycle. Ethnic, sex and class variables in aging. Cross-cultural comparisons of occupational, educational, familial, recreational and political opportunities for the aging.

528. Death and Dying (3)

Prerequisite: Sociology 101.

Status and roles of men and women in the second half of the life cycle. Ethnic, sex and class variables in aging. Cross-cultural comparisons of occupational, educational, familial, recreational and political opportunities for the aging.

531. Working and Society (3)

Prerequisite: Sociology 101.

Sociological concepts and theories of the process of dying. Comparative study of death and dying with emphasis on social, psychological, and social organization approaches. Consideration of contemporary social-ethical surrounding dying in our society.

532. Workers, Managers, and Bureaucracy (3)

Prerequisite: Sociology 101.

Sociology of work in formal organizations. From classic theories on division of labor, industrial capitalism, and bureaucracy, to transformation of work in the twentieth century. Experiences of workers and managers in the U.S. and other societies. Not open to students with credit in Sociology 431.

537. Political Sociology (3)

Prerequisite: Sociology 101.

Social organization of political processes. Power and authority, social class, primary groups, collective behavior, social change, and other sociological factors considered in their relationships to political processes.

539. Sociology of Education (3)

Prerequisite: Sociology 101.

Social organization of education in the United States and other societies. Structure and functions of educational institutions. Formal and informal education. Class, ethnic, and other social factors affecting the educational process. Implications of educational decision making and testing.

543. Police, Courts, and Corrections: The Sociology of Crime and Punishment (3)

Prerequisite: Sociology 101.

- Historical sociology of the American criminal justice system. Development and functions of police, criminal courts, prisons, parole, and probation. Theories and ideologies of punishment and rehabilitation. Review of contemporary research.

555. Immigrants and Refugees in Contemporary American Society (3)

Prerequisite: Sociology 101.

Contemporary migration to the United States, especially from Latin America and Asia. Political and economic migration. Immigrant and refugee adaptation. Theoretical controversies, research applications, and policy implications.

556. Topics in Comparative Societies (3)

Prerequisite: Sociology 101.

Social structures, social problems, and social change in selected areas of the world in comparative and historical perspectives. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

557. Urban Sociology (3)

Prerequisite: Sociology 101.

The structure and function of the modern city; types of neighborhoods; forms of recreation; social forces in a metropolitan area; types of urban personalities and groups; rural-urban conflicts of culture. Practical field studies required.

596. Current Topics in Sociology (1-3) I, II

Prerequisite: Sociology 101.

Selected specialized, controversial or currently relevant topics in sociology. Maximum opportunity provided for student initiative in determining course content and procedures. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

597. Investigation and Report (3) I, II

Prerequisites: Fifteen units in sociology and consent of instructor.

Analysis of special topics in sociology. Maximum credit six units.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Spanish

In the College of Arts and Letters

OFFICE: Business Administration 403
TELEPHONE: (619) 594-6588

Faculty

Emeritus: Castro (Castillo), Jiménez-Vera, Lemus, Santaló, Sender, Talamantes, Weeter

Chair: Wilson

Professors: Barrera, Case, Christensen, Elizondo, Head, Higgs, Robinson, Segade, Silverman, Wilson

Associate Professors: Hidalgo, O'Brien, Young

Offered by the Department of Spanish and Portuguese Languages and Literatures

Master of Arts degree in Spanish.

Major in Spanish with the B.A. degree in liberal arts and sciences.

Teaching major in Spanish for the single subject teaching credential in foreign languages.

Minor in Spanish.

Certificate in court interpreting (available at Imperial Valley Campus only).

Certificate in translation studies.

The Major

Spanish is the fourth most widely spoken language in the world and the second most frequently used language in the Southwest. Because of San Diego's proximity to Mexico and other Spanish-speaking countries, many students here are interested in learning Spanish. Their reasons range from practical application in jobs, travel, reading or recreation to a curiosity about the culture or literature of Spanish-speaking countries. The Department of Spanish and Portuguese offers a wide range of courses and programs designed to satisfy the varied needs of students who enter the Spanish major.

A major in Spanish for the single subject teaching credential can lead directly to a career in secondary teaching. The federal government also employs those with Spanish-speaking ability in both civil service and diplomatic areas. In addition, many fields which involve contact with the public require knowledge of Spanish. These types of public contact fields include law enforcement, medicine, banking, tourism, government, library positions, foreign affairs, public relations, advertising, missionary assignments, and social services.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Spanish Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 11051)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 49 units in Spanish courses can apply to the degree.

Students majoring in Spanish must complete a minor in another field approved by the departmental adviser in Spanish.

Preparation for the Major. Spanish 101, 102, 201, 202, 211, and 212. See adviser. (22 units)

Foreign Language Requirement. The foreign language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in Spanish to include Spanish 301, 302; six units selected from Spanish 405A, 405B, 406A, 406B; Spanish 340 or 341 or 342; Spanish 448 or 449; Spanish 350; one elective from 300 or 400-level Spanish courses and one elective from 500-level Spanish courses. At least 15 upper division units must be taken in residence at SDSU. Students who have successfully completed courses for upper division credit may not receive credit for lower division courses.

Spanish Major

For the Single Subject Teaching Credential in Foreign Languages
With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 11051)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education. For students completing the single subject teaching credential program, no more than 52 units in Spanish courses can apply to the degree.

This major may be used by students in policy studies or teacher education as an undergraduate major for the B.A. degree in liberal arts and sciences. A minor in another field approved by the departmental adviser in Spanish is required for the degree.

Preparation for the Major. Spanish 101, 102, 201, 202, 211, and 212. See adviser. (22 units)

Foreign Language Requirement. The foreign language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 30 upper division units in Spanish to include Spanish 301, 302; six units selected from 405A, 405B, 406A, 406B; Spanish 340 or 341 or 342; Spanish 448 or 449; Spanish 350 and 561; one elective from 300-400 level courses and one elective from the 500-level courses. At least 15 upper division units must be taken in residence at SDSU. Students who have successfully completed courses for upper division credit may not receive credit for lower division courses.

Spanish Minor

The minor in Spanish consists of a minimum of 18-19 units, at least twelve of which must be in upper division Spanish courses.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Certificate in Translation Studies

The Department of Spanish and Portuguese Languages and Literatures offers a Certificate in Translation Studies. The certificate requires 15 units in Spanish dealing with translation theory, nonliterary and literary translation, from Spanish to English and from English to Spanish.

A prospective candidate for the certificate should possess a bilingual facility in Spanish and English. The student must complete with a grade of B or better English 305W (or pass the University Upper Division Writing Competency Examination), and Spanish 301, 302, and 350 prior to starting work on the certificate.

After meeting the basic requirements for admission, the student must complete with a GPA of 3.0 or better 15 units to include Spanish 491, 492, 493, 556, and three units from Spanish 307, 495, 497, and either 499 or 596 when offered with appropriate certificate-related content.

Upon completing the 15 units of coursework, the student must take a departmental examination for the certificate. Upon successful completion of the examination, the student will be awarded the certificate. Courses in the certificate may not be counted toward the major or minor in Spanish.

Certificate in Court Interpreting

(Imperial Valley Campus)

The Imperial Valley Campus offers a Certificate in Court Interpreting. The certificate requires 15 units in Spanish dealing with problems of court interpreting and includes interpreting from Spanish to English and from English to Spanish.

A prospective candidate for the certificate should possess a bilingual ability in Spanish and English. The student must complete with a grade of B or better English 305W (or pass the University Upper Division Writing Competency Examination), and Spanish 301, 302, and 350 prior to starting work on the certificate.

After meeting the basic requirements for admission, the student must complete with a GPA of 3.0 or better 15 units to include Spanish 491, 493, 556, and either 499 or 596 when offered with appropriate certificate-related content.

Upon completing the 15 units of coursework, the student must take a departmental examination for the certificate. Upon successful completion of the examination, the student will be awarded the certificate. Courses in the certificate may not be counted toward the major or minor in Spanish.

Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Spanish to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Spanish 201 or the equivalent level of achievement. The usual sequence of coursework is Spanish 101, 102, and 201. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.
2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students

who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. **Four years** of high school level language count as the equivalent of three college semesters, thus fulfilling the foreign language requirement.

Students entering San Diego State University with five or six years of high school Spanish may enroll in Spanish 202; the department recommends, however, that they take Spanish 301.

Courses

LOWER DIVISION COURSES

Native speakers of Spanish from foreign countries will not receive credit for taking lower division courses in Spanish, except with advance approval from the department.

All lower division courses in Spanish are taught in Spanish.

No credit will be given for lower division courses taken after successfully completing any upper division Spanish course.

No credit will be given for Spanish 101, 102, 201, 202, 301 taken out of sequence.

101. Elementary (4)

Four hours of lecture plus laboratory.

Pronunciation, oral practice, readings on Hispanic culture and civilization, essentials of grammar. Not open to students who have completed three years of high school Spanish unless the third course was completed five or more years ago. Not open to students with credit in Spanish 102, 201 or 202. (Formerly numbered Spanish 100A.)

102. Elementary (4)

Four hours of lecture plus laboratory.

Prerequisite: Spanish 101 or two years of high school Spanish. Continuation of Spanish 101. Not open to students who have completed four years of high school Spanish unless the fourth course was completed five or more years ago. Not open to students with credit in Spanish 201 or 202. (Formerly numbered Spanish 100B.)

201. Intermediate (4)

Prerequisite: Spanish 102 or three years of high school Spanish.

Systematic review of grammar within framework of communication-based instruction. Grammatical features supported through reading material. Conducted in Spanish. Not open to students with credit in Spanish 202. (Formerly numbered Spanish 100C.)

202. Intermediate (4) I, II, S

Prerequisite: Spanish 201.

Review of selected grammatical features supported by study of cultural materials. Emphasis on written and spoken language. Conducted in Spanish.

211. Intermediate Conversation and Reading (3) I, II, S

Prerequisite: Spanish 102.

Emphasis on oral communication and reading comprehension through intermediate level cultural materials. Some writing will be adjunct to reading. Conducted in Spanish. May be taken concurrently with Spanish 201. Not open to students with credit in Spanish 211-Y.

212. Intermediate Conversation and Writing (3) I, II, S

Prerequisite: Spanish 201 or 211.

Emphasis on oral communication and intermediate level writing in Spanish. Conducted in Spanish. May be taken concurrently with Spanish 202.

281. Intermediate Spanish for Spanish Speakers (3)

Prerequisite: Exposure to Spanish in the home, neighborhood, or Spanish-speaking country.

Introduction to written Spanish: orthography, spelling, basic sentence construction, vocabulary enrichment, complex and compound sentence construction, basic principles of writing. Not open to students with credit in Spanish 101, 102, 201, 211. (Formerly numbered Spanish 203.)

282. Intermediate Spanish for Spanish Speakers (3)

Prerequisite: Spanish 281 or approved diagnostic placement test.
Introduction to written Spanish: review of orthography, spelling, basic sentence construction, vocabulary enrichment, complex and compound sentence construction, basic principles of writing. Not open to students with credit in Spanish 101, 102, 201, 211. (Formerly numbered Spanish 204.)

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

297. Reading Spanish for Graduate Students (3) II Cr/NC

Prerequisite: Limited to graduate students.
Techniques of reading expository and critical material for graduate students who have a foreign language requirement.

299. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Intended for Undergraduates)

All upper division courses in Spanish are taught in Spanish unless otherwise stated.

No credit will be given for lower division courses taken after successfully completing any upper division Spanish course.

301. Advanced Conversation and Reading (3)

Prerequisites: Spanish 202 and 212.
Continued development of oral communication and reading comprehension. Review of selected grammatical structures through use of literary and cultural materials. Some writing will be adjunct to reading. Conducted in Spanish. May be taken concurrently with Spanish 302. (Formerly numbered Spanish 301A.)

302. Advanced Conversation and Writing (3)

Prerequisites: Spanish 202 and 212.
Advanced practice at oral communication through conversations and public speaking. Practice of written Spanish through advanced composition. Conducted in Spanish. May be taken concurrently with Spanish 301.

307. Introduction to Commercial Spanish (3) I

Prerequisite: Spanish 301 or 302.
Terminology and forms of business correspondence and documents.

340. Spanish Civilization (3)

Prerequisites: Spanish 301 or 302; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Spanish culture of the past and present, with emphasis on literature, philosophy and the arts. Not open to students with credit in Humanities 350. (Formerly numbered Spanish 440.)

341. Spanish American Civilization (3)

Prerequisites: Spanish 301 or 302; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Spanish American cultures, with emphasis on literature, philosophy and the arts. (Formerly numbered Spanish 441.)

342. Mexican Civilization (3)

Prerequisites: Spanish 301 or 302; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

The major currents and characteristics of Mexican culture, as expressed through the centuries in literature, philosophy and the arts. (Formerly numbered Spanish 442.)

**350. Advanced Grammar (3)**

Prerequisites: Spanish 301 and 302.
Significant systematic features of modern Spanish grammar with analysis of passages from literature. Required for credential applicants. (Formerly numbered Spanish 450.)

381. Advanced Spanish for Spanish Speakers (3)

Prerequisites: Spanish 281 and 282.
Continuation of Spanish 281 and 282. Advanced course for Spanish speakers focusing on advanced structures, readings and composition. Students are required to write 12 to 15 compositions plus a research paper in Spanish.

405A-405B. Survey Course in Spanish Literature (3-3)

Prerequisites: Spanish 301 and 302; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Important movements, authors and works in Spanish literature from the Middle Ages to the present. (Formerly numbered Spanish 305A-305B.)

406A-406B. Survey of Spanish American Literature (3-3)

Prerequisites: Spanish 301 and 302; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Reading from representative Spanish American authors during colonial, revolutionary, and modern periods. (Formerly numbered Spanish 306A-306B.)

448. Spanish Linguistics (3) I, II, S

Prerequisites: Spanish 301 and 302.
Structural, historical, and applied Spanish linguistics.

449. Phonetics and Phonemics (3) I, II, S

Prerequisites: Spanish 301 and 302.
Sounds of Spanish, and Spanish phonemic systems. Problems involved in teaching of Spanish pronunciation to English-speaking students.

491. Introduction to Translation Studies (3) I

Prerequisites: Spanish 350 and satisfaction of the University Upper Division Writing requirement.

Theoretical grounding and practical problems of literary and non-literary translation; linguistic and cultural obstacles; literary, legal, commercial, medical, social services lexicons in context.

492. Translation Theory (3)

Prerequisite: Spanish 491.
Historical overview of translation theory. Translation types and conventions. Theoretical considerations of lexical, morphological, verbal, phonic, syntactic, and hermeneutic elements. Cross-language equivalence, fidelity, loss and gain in translation. Criteria for excellence and evaluation. Culture and commerce of translation.

493. Advanced Spanish-English/English-Spanish Translation (3) I, II

Prerequisites: Spanish 350 and 491.
Practicum involving methods and techniques in translation of legal or government papers, banking documents, and business contracts from Spanish into English and from English into Spanish. Practice in translation of old Spanish into English (deeds, surveys, baptismal records, manuscripts of books).

495. Internship in Translation and Interpretation (3) I, II

Prerequisites: Spanish 491 and consent of instructor.
Students selectively assigned to legal firms, medical facilities, commercial establishments or public offices that deal routinely with English and Spanish translation and interpretation. Students work 15 hours weekly under joint supervision of site coordinators and instructor. Maximum credit six units.

496. Selected Studies in Spanish (3)

Topics in Spanish or Spanish American language, literature, culture and linguistics. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

497. Advanced Commercial Spanish (3) II

Prerequisites: Six units from Spanish 301, 302, and 307.
Terminology and techniques used in commercial transactions, including interpretation and writing of business materials.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units. This course is intended only for students who are currently enrolled in or who already have credit for all upper division courses in Spanish available in any given semester.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

515. Mexican Literature (3)

Prerequisites: Spanish 406A-406B.
Mexican literature from the Romantic period to the present. Special emphasis placed on contemporary era. (Formerly numbered Spanish 515A-515B.)

520. Caribbean Area Countries Literature (3)

Prerequisites: Spanish 406A-406B.
Literature of Caribbean Islands, Central America, Colombia and Venezuela, from colonial period to present. Special emphasis on contemporary era.

522. Andean Countries Literature (3)

Prerequisites: Spanish 406A-406B.
Literature of Ecuador, Peru, Bolivia, and Chile from the period immediately preceding the Spanish conquest to the present.

524. Contemporary Argentine Literature (3)

Prerequisites: Spanish 406A-406B.
Literature of contemporary Argentina. Leading prose writers to include Borges, Cortázar, Malraux, Sábato.

530. Nineteenth Century Spanish Novel and Short Story (3)

Prerequisites: Spanish 405A-405B.
The development of the novel and short story in Spain in the nineteenth century.

556. Translation of Literary Works: A Critical Comparison (3)

Prerequisite: Spanish 493.
Techniques and methods of translating literary texts from English to Spanish and Spanish to English; textual and stylistic problems in different periods, genres, and dialects, with emphasis on contemporary literature.

561. Methods in Teaching Spanish as a Second Language (3)

Prerequisite: Spanish 350 or 448.
Teaching of Spanish as a second language: contemporary theory and methods. Not open to students with credit or concurrent enrollment in French 561.

570. Spanish American Poetry (3) I, II, S

Prerequisites: Spanish 406A-406B.
Spanish American poetry of the nineteenth and twentieth centuries.

571. Spanish American Short Story (3) I, II, S

Prerequisites: Spanish 406A-406B.
Principal Spanish American short story writers.

572. Spanish American Theater (3) I, II, S

Prerequisites: Spanish 406A-406B.
Principal Spanish American dramatists and movements. Special emphasis on contemporary era.

581. Mexican and Chicano Sociolinguistics (3)

Prerequisites: Spanish 340; and Spanish 448 or 449.
Language issues encountered in both Mexico and U.S. Southwest. Bilingualism, diglossia, language attitudes and bilingual education studied in sociohistorical perspective using concepts and methods advanced by sociology of language.

596. Selected Studies in Spanish (3)

Prerequisite: Spanish 302.
Topics in Spanish or Spanish American language, literature, culture and linguistics. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Special Education

In the College of Education

OFFICE: North Education 70
TELEPHONE: (619) 594-6665

Accredited by the California Commission on Teacher Credentialing.

Faculty

Emeritus: Forbing, McClard, Singer, Trimmer
Chair: Pumpian
Professors: Cegelka, Doorlag, Kitano, Lewis, Lynch, Pumpian
Associate Professors: Brady, Graves, Karge
Lecturer: Valles

Offered by the Department

Master of Arts degree in education.
Special education specialist credentials.
Certificate in bilingual (Spanish) special education.
Certificate in teaching the emotionally disturbed/
behaviorally disordered.
Resource specialist certificate of competence.
Supported employment and transition specialist certificate.

Courses

UPPER DIVISION COURSE (Intended for Undergraduates)

397. Problems in Education (Credit to be arranged) I, II (Offered only in Extension)

Prerequisite: Consent of instructor.
Class study of specially selected problems in education. Does not
apply to pattern requirements for credentials. Credit earned in this
course not applicable to a bachelor's degree.

470. Special Education Applications (2 or 3) Cr/NC

One lecture and two or four hours of activity.
Prerequisite: Consent of instructor.
Procedural applications in educational and/or community pro-
grams for students with handicapping conditions.

496. Selected Topics in Special Education (1-4) I, II, S

Prerequisite: Consent of instructor.
Instructional sequences focusing on a single topic or competency
dealing with special education. Topics differ each semester to adjust
to current literature in the field, training needs, and resource availabil-
ity. May be repeated with new content. See Class Schedule for spe-
cific content. Limit of nine units of any combination of 296, 496, 596
courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor. Open only to senior and gradu-
ate students in education who have shown ability to work indepen-
dently.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

NOTE: All 500-level courses in special education, with the excep-
tion of Special Education 500 and 501, are reserved for students offi-
cially admitted to one of the programs in special education.

500. Human Exceptionality (3) I, II, S

Historical, philosophical, and legal backgrounds which affect spe-
cial education practices. Identifying and programming for students
with exceptionalities: principles, procedures, and techniques. Field-
work.

501. Special Education Procedures (3) I, II, S

Procedures, legal requirements, and interpersonal processes in
the identification, prescription, teaching and evaluation of instruc-
tional programs for students with handicaps.

524. Characteristics and Education of Students with Learning Disabilities (3) I

Prerequisites: Credit or concurrent registration in Special Educa-
tion 500 and 501.
Historical and philosophical perspectives of programs related to
students with learning disabilities, including review of research on
educational programs, curricular approaches, and characteristics.

525. Characteristics and Education of Students with Severe Disabilities (3) I

Prerequisites: Credit or concurrent registration in Special Educa-
tion 500 and 501.
Historical and philosophical perspectives of programs related to
students with severe disabilities, including review of research on edu-
cational programs, curricular approaches and characteristics.

526. Characteristics and Education of Students with Physical Disabilities (3) I

Prerequisites: Credit or concurrent registration in Special Educa-
tion 500 and 501.
Historical and philosophical perspectives of programs related
to students with physical disabilities, including review of research
on students' characteristics, educational programs, and curricular
approaches.

527. Ethnolinguistic Diversity and Students with Learning Handicaps (3) II

Prerequisites: Special Education 500 and 501.
Historical and philosophical perspectives of programs related to
ethnolinguistically diverse students who also have learning handi-
caps, including review of research on educational programs, curricular
approaches, and instructional needs.

528. Early Intervention for Infants, and Young Children with Handicaps and Their Families (3) I

Prerequisites: Special Education 500 and 501 or equivalent
coursework in another discipline.
Characteristics and needs of infants, toddlers, and preschoolers
with handicaps and their families, focusing on approaches to educa-
tional service delivery, review of research, and analysis of best prac-
tices in a pluralistic society.

529. Characteristics and Education of Students with Serious Emotional Disturbances (3) I

Prerequisites: Special Education 500 and 501.
Historical and philosophical perspectives of programs for students
with emotional disturbances and behavior disorders, including review
of research on student characteristics, educational programs, and
curricular approaches.

553. Dynamics of Behavior Change of the Exceptional Individual (3) I, II, S

Prerequisites: Special Education 500 and 501.
Management and treatment of individuals with exceptional needs.
Current theories and programs in behavioral change studies, ana-
lyzed with reference to their applications for the educational environ-
ment. Not open to students with credit in Special Education 513A,
513B, or 513C.

560. Applications of Technology for Exceptional Learners (3) I, II, S

Prerequisite: Special Education 500.
Educational applications of current technologies for learners
who are handicapped and/or gifted. Selection, modification, and
classroom use of technologies to improve or bypass physical, sen-
sory, communicative, learning, and social disabilities and for environ-
mental control.

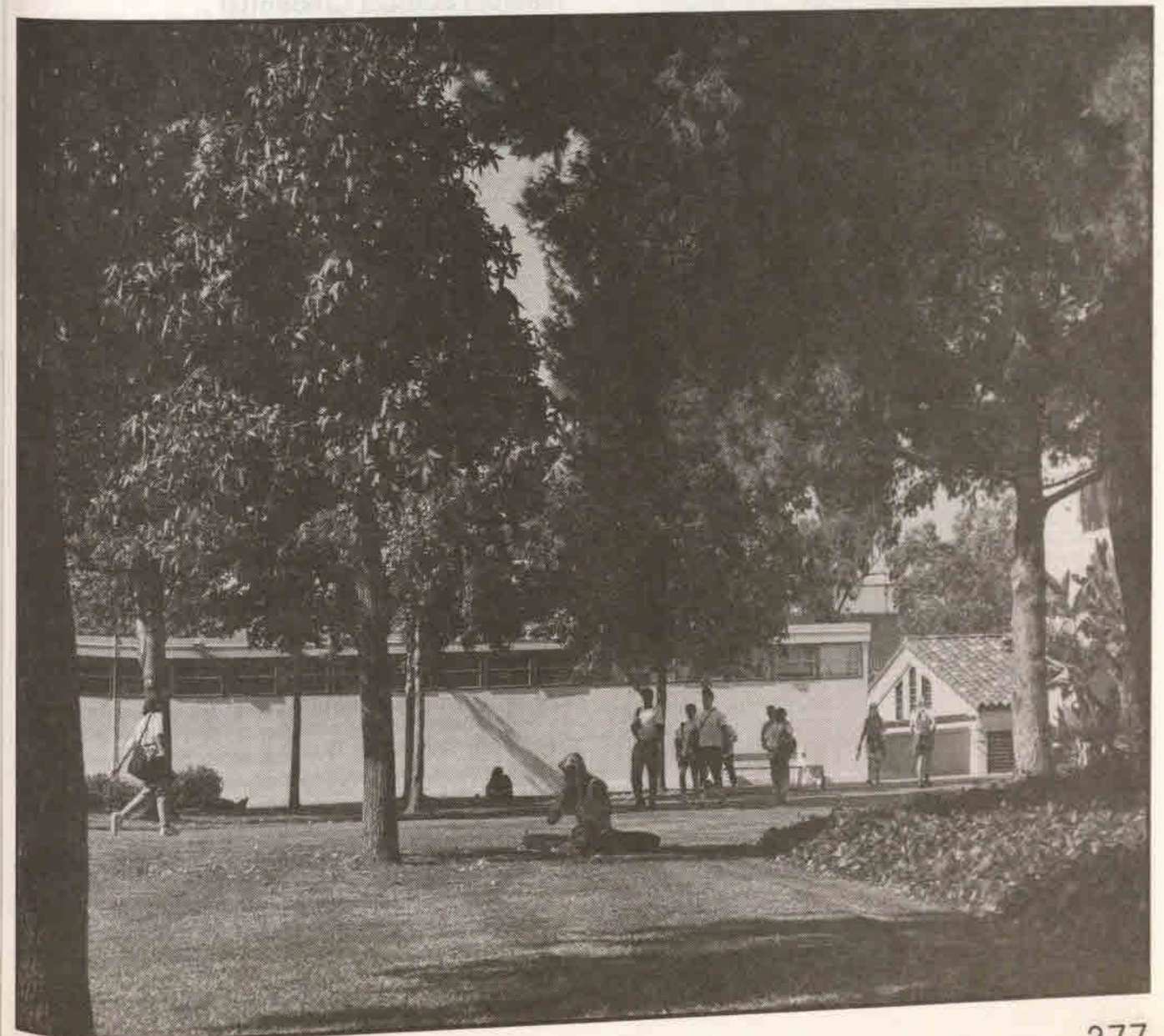
596. Selected Topics in Special Education (1-4) I, II, S

Specialized study of selected topics in special education. May be
offered as either a workshop or lecture/discussion. See Class Sched-
ule for specific content. Maximum credit of six units of 596 applicable
to a master's degree. Maximum combined credit of six units of 596
and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.

Speech Communication

Refer to "Communication" in this section of the catalog.



Teacher Education

In the College of Education

A Member of the American Association of Colleges for Teacher Education. Accredited by the California Commission on Teacher Credentialing and the National Council for Accreditation of Teacher Education.

Faculty

Emeritus: Ackerly, Altamura, Anderson, Baker, Birch, Blanc, Botkin, Bradley, Briggs, Burnside, Campbell, Charles, Clark, Elliott, Erickson, Ford, Friedrich, Fulkerson, Gast, Gates, Gega, Gjerde, Goodson, Gray, Groff, Hill, Huls, Inskeep, Kaatz, Kendall, Klann, LaPray, LuPone, McCoy, Meek, Morris, Murphy, Person, Platz, Prouty, Reel, Retson, Riggs, Rixman, Rodney, Ross, R., Rowland, Smith, Stautland, Steckbauer, Stough, Strand, Tossas, Wilding, Yesselman
Interim Director: Ross, P.

Professors: Becklund, Bee, Berg, Cornejo, Curry, Duckworth, Fearn, Flood, Ingmanson, Lapp, McCormack, Mikitka, Moreno, Nagel, Pehrson, Shaw, Strom, Treadway

Associate Professors: Armstrong, Bezuk, Evans, Farnan, Lujan, Mason, Mathison, Pang, Park, Philipp, Ross, P., Santa Cruz, Tran
Assistant Professors: Garrison, Mora, Neumann, Nieto

Offered by the School

Master of Arts degree in education.
Multiple subject credential.
Multiple subject cross-cultural language and academic development (CLAD) credential.
Reading/language arts specialist credential.
Single subject teaching credential.
Single subject cross-cultural language and academic development (CLAD) credential.
Certificate in children's literature.

The Credentials

The demand for elementary and secondary teachers is dramatically increasing. Current growth in student enrollment and the need to replace teachers who retire combine to forecast a significant increase in new teacher hiring during the next decade. Students in California's public schools reflect a wide variety of ethnic, linguistic, and cultural backgrounds. The School of Teacher Education is committed to preparing teachers to ensure the academic success of all students. Candidates from underrepresented groups are strongly encouraged to apply.

The Multiple Subject Credential qualifies graduates to teach in any K-12 self-contained classroom (a classroom where one teacher is responsible for teaching in all subject fields). For most, this means an elementary or middle school setting but does not preclude an alternative school or school-within-a-school (e.g., pregnant teen) setting. The credential programs include a study of educational psychology plus a variety of methods courses in subjects commonly taught in elementary schools.

A full-time, two-semester program is available to those wishing to prepare as rapidly as possible. The three-semester, part-time program accommodates those students who may have employment or family responsibilities as well as those who may wish to resume university study more leisurely. Both programs require a daytime commitment. Examinations and/or coursework prerequisite to program admission, if not completed within the undergraduate degree program, may extend the total time commitment for credential issuance by one semester.

The Single Subject Credential qualifies graduates to teach in grades K-12 in a specific subject area. Most candidates prepare to

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TELEPHONE: (619) 594-5964

teach in grades 7-12 (usually junior or senior high school) or in a middle school setting (usually grade 6-8). Students in the program follow a sequence of courses which normally takes two semesters to complete. The first semester of the program emphasizes curriculum theory and development, educational research, and foundations of education and includes a part-time student teaching experience. The second semester focuses on a full-time student teaching experience and accompanying seminar. The program requires a daytime commitment. Examinations and/or coursework prerequisite to program admission, if not completed within the undergraduate degree program, may extend the total time commitment for credential issuance by one or more semesters.

Multiple Subject Credential (Elementary Education) (Credential Code: 00200)

Multiple Subject—Professional Clear Credential

Persons interested in teaching in the traditional elementary school will typically pursue the Multiple Subject credential which authorizes teaching service in self-contained classrooms in preschools, grades K-12, and in classes organized primarily for adults (classrooms in which one teacher is responsible for all the subjects commonly taught). Recommendation for this credential requires:

1. A baccalaureate or higher degree.
 2. Completion of an approved program of professional education, including student teaching and coursework in reading methods with a grade point average of 3.0 or higher.
 3. Basic skills competency as demonstrated through passing scores on the California Basic Educational Skills Test (CBEST).
 4. Demonstrated subject matter competency through completion of an approved waiver program (Liberal Studies, Emphasis in Education) or passing scores on the National Teacher Examination (NTE), Multiple Subject Assessment for Teachers (MSAT) (must have scores taken within five years prior to recommendation).
 5. Demonstrated knowledge of the principles and provisions of the United States Constitution through successful completion of a three-unit collegiate-level course or examination. (Courses are listed in the section of this catalog on "Graduation Requirements," IV. American Institutions Requirement, B.2. United States Constitution)
 6. Knowledge of health education in California, including substance abuse and nutrition: Community Health Education 101 or 320, and verification of CPR competency.
 7. Demonstrated knowledge of PL 94-142: Needs of, and methods of providing educational opportunities to individuals with exceptional needs (mainstreaming), TE 526.
 8. Demonstrated knowledge of computer hardware, software, and applications to educational/classroom use (computer literacy): EDTEC 470.
 9. Completion of a fifth year of study (30 units of upper division or graduate-level coursework completed **after** issuance of the baccalaureate degree; coursework in professional preparation, including student teaching, may apply if completed after the baccalaureate degree).
- The Professional Clear Multiple Subject credential is valid for five years and requires completion of a minimum of 150 hours of approved professional growth activities and 90 days of teaching-related activities in order to be renewed.

Multiple Subject (Elementary)—Preliminary Credential

Candidates may be recommended for Preliminary Multiple Subject teaching credentials when they have satisfied requirements 1, 2, 3, 4, and 5 listed above. Applicants whose academic programs allow them to meet these requirements concurrently with their baccalaureate degrees will be eligible for preliminary certification. The Preliminary credentials have the same teaching authorizations as the Professional Clear credentials and are valid for five-year periods. Holders of the Preliminary credentials must complete items 6, 7, 8, and 9 within that five-year time period in order to be renewed as Professional Clear credentials. Five-year preliminary credentials may not be extended without completion of the additional requirements within the original five years of issuance.

NOTE: Undergraduate students in the Multiple Subject credential program may register for concurrent postbaccalaureate credit in their final semester prior to obtaining a baccalaureate degree as explained in the section of this catalog on "General Regulations."

Admission Standards and Qualifications for the Multiple Subject Credential Program

Candidates for the Multiple Subject Credential Program must satisfy the standards and qualifications listed below and submit complete application packets to the Center for Careers in Education within the specified application periods. Applications for program admission for the 1996 academic terms are available from Aztec Shops Copy Center during the following open enrollment dates:

For Spring 1996 – August 21 through October 27, 1995

For Fall 1996 – January 23 through April 5, 1996

Completed application packets will include items verifying satisfaction of the following:

1. **CBEST Examination.** Students must pass the California Basic Educational Skills Test (CBEST) *prior to admission* to the Multiple Subject credential program. Information may be obtained from the Test Office, SS-2549. Candidates are urged to take this examination as early as possible. Candidates are required to submit a photocopy of the individual score reports.
2. **Subject Matter Competency.** Students must verify completion of subject matter competency in diversified subjects commonly taught in self-contained classrooms prior to admission to the Multiple Subject Credential Program. This may be done through successful completion of the Liberal Studies major, Emphasis in Education or its equivalent at another California teacher-training institution or passing scores on the PRAXIS Multiple Subject Assessment for Teachers (MSAT). Test scores submitted for verification of subject matter competency are valid for five years from the date of the examination and must be valid at the time of recommendation for the credential. Registration information and materials for the PRAXIS MSAT are available through the Center for Careers in Education, ED-100.
3. **Prerequisite Courses.** These courses or approved equivalents must be completed with grades of "C," "CR," or higher no more than five years prior to admission to the Multiple Subject Credential Program:
 - a. **Education 451, "Introduction to Multicultural Education."** This course provides an introduction to ethnicity, language, and culture in education, particularly the ways in which those factors differentially affect educational outcomes for children. The course assists in preparing teacher applicants to work with students from diverse backgrounds by examining both societal and personal belief systems and the ways that those beliefs are expressed in public school classrooms.
 - b. **Mathematics 210, "Structure and Concepts of Elementary Mathematics."** This course covers pre-number concepts; development of whole numbers, integers, and their operations; development of whole numbers, integers, and their operations; geometric concepts of two and three-dimensional spaces; problem-solving strategies. With approval of the

mathematics adviser, any of the following courses may be substituted for Mathematics 210: Mathematics 121, 150, 312.

- c. **Music 102, "Basic Musicianship for Non-Music Majors."** Topics in this course include rudimentary music theory involving the elements of music: melody, rhythm, and harmony; developing the understanding of these elements through instrumental and vocal experiences which include the use of unison and part-singing, the keyboard, and simple melodic and harmonic instruments.
- d. **Physical Education 241A, 241B, "Physical Education of Children."** Course content includes discussion of scientific principles, programs, activities, and instructional techniques for physical education in elementary schools. Practical field experience with elementary students is also required.

Candidates are required to submit unofficial transcripts from SDSU and official transcripts from all other colleges and universities attended including any current coursework-in-progress to verify completion of or enrollment in these courses.

4. **Grade Point Average.** Candidates must have cumulative grade point averages (GPAs) within the upper one-half of undergraduate students in the candidates' majors. GPAs vary according to discipline and graduating institution. GPA requirements are available in the Center for Careers in Education, ED-100. Candidates are required to submit official copies of transcripts from all colleges and universities attended and unofficial copies of transcripts for SDSU coursework for GPA calculations.
5. **TB Clearance.** Evidence of a negative tuberculosis test (these tests are valid for four years and must be in effect during the time that candidates are enrolled in the credential program). Clearance statements may be secured from Health Services, private physicians or HMO's, or public health agencies.
6. **California Certificate of Clearance.** This certificate represents a background clearance and check conducted by the State Department of Justice and Federal Bureau of Investigation. Turnaround time for the clearance can take as long as eight months. Possessors of K-12 California credentials may satisfy this requirement by submitting copies of those certificates. In lieu of the actual Certificate of Clearance or copy of a valid credential, candidates may submit their clearance application packets and fees concurrently with program applications.
7. **Early Field Experience.** All candidates are required to participate in an early field experience in the public schools prior to admission to the program. This requirement can be satisfied through documented experience or completion of Liberal Studies 300 or Teacher Education 290 since August 1990.
8. **Appeals Process.** Candidates who do not meet all the admission requirements may petition the Multiple Subject Admissions and Retention Committee for individual consideration; petition forms must be submitted concurrently with the application packets.

In addition to the minimum admissions standards identified above, the Multiple Subject Admissions and Retention Committee also may consider qualifications such as previous teaching experience, relevant working experience with children, and second language ability. Due to the number of applicants, application to the program does not ensure admission.

NOTE: Appointments for discussion of individual concerns relative to the credential program may be made with the Multiple Subject Credential Program Adviser during the academic year through the Center for Careers in Education, ED-100, 594-5964. All candidates are urged to attend one of the regularly scheduled group advising sessions prior to making an individual appointment.

Multiple Subject Credential Cross-Cultural Language and Academic Development (CLAD) Emphasis

(Credential code: 00200)

The program of study leading to the Multiple Subject Credential with an emphasis in Cross-Cultural, Language, and Academic Development (CLAD) prepares candidates to teach in classrooms serving the increasing number of children in our schools with limited English proficiency in situations where bilingual teachers are not available. The CLAD program provides candidates with more training than basic credential candidates in three areas: language acquisition/development, culture, and pedagogical strategies for English language development. This credential will help meet the critical shortage of bilingual teachers in California public schools by preparing entry level teachers to deliver specially-designed academic instruction in English promoting both language development and academic success in all content areas.

Candidates recommended for the Multiple Subject Teaching Credential with a Cross-Cultural, Language and Academic Development Emphasis (CLAD) must meet all the requirements for the Multiple Subject Preliminary Credential and satisfy the admission standards and qualifications for the Multiple Subject Credential program listed above. In addition, they must complete the following prerequisites:

1. Experience Learning a Second Language

Six semester units of college coursework in a second language or equivalent experience such as three years of high school foreign language, Peace Corps training and service or residence in a non-English speaking country.*

2. Prerequisite Courses

Education 451	3 units
Linguistics 420**	3 units
Linguistics 452**	3 units
Linguistics 550	3 units
Policy Studies in Language and Cross-Cultural Education 515	3 units

*Already required for Liberal Studies major and some Single Subject majors.

**Linguistics 420 and 452 are requirements for the Liberal Studies major.

Single Subject Credential (Secondary Education) (Credential Code: 00100)

Single Subject—Professional Clear Credential

Persons interested in teaching in the traditional secondary school will typically pursue the Single Subject credential which authorizes teaching service in departmentalized, subject matter classrooms in preschools, grades K-12, and in classes organized primarily for adults (classes where instruction is provided in only one subject). Candidates must verify subject matter competency in one of the following subject fields:

ACCEPTABLE SINGLE SUBJECT CREDENTIAL AREAS AND APPLICABLE MAJORS

Art: Art

Business: Accounting, Finance, Information Systems,
Management, Marketing

English: Comparative Literature, Drama, English, Journalism,
Linguistics, Speech Communication

Foreign Languages: Classics (Latin), French, German,
Russian, Spanish

*Science: Biology, Physical Science

Mathematics: Mathematics

Music: Music

*Physical Sciences: Physical Science

*Social Science: Social Science

* These programs are in the process of being revised. See department.

Recommendation for this credential requires:

1. A baccalaureate or higher degree.
2. Completion of an approved program of professional education, including student teaching with a grade point average of 3.0 or higher and coursework in reading methods. The required courses at SDSU are Teacher Education 453, 903, 914, 922, 933, 954, 963, 964.
3. Basic skills competency as demonstrated through passing scores on the California Basic Educational Skills Test (CBEST).
4. Demonstrated subject matter competency through completion of an approved waiver program in one of the California Single Subject areas, through a combination of coursework and competency examinations, or through PRAXIS examination. Candidates applying for the Single Subject Credential Program after August 31, 1995 who have not satisfied subject matter competency through coursework or PRAXIS examination(s), must take and pass a new set of examinations for the Single Subject Credential in seven areas: English, Mathematics, Social Science, Biology[#], Chemistry[#], Geoscience[#], and Physics[#]. Candidates for the science authorizations (noted with #) must also take and pass a General Science examination. Candidates should check with the Center for Careers in Education, ED-100, to clarify the appropriate means for satisfaction of the subject matter competency requirement. Competency must be verified and assessed by a designated departmental adviser regardless of the means of establishing knowledge proficiency.
5. Demonstrated knowledge of the principles and provisions of the United States Constitution through successful completion of a three-unit collegiate-level course or examination. (Courses are listed in the section of this catalog on "Graduation Requirements," IV. American Institutions Requirement, C.b.2.)
6. Knowledge of health education in California, including substance abuse and nutrition, Community Health Education 101 or 320 and verification of CPR competency.
7. Demonstrated knowledge of PL 94-142; needs or and methods of providing educational opportunities to individuals with exceptional needs (mainstreaming); TE 526.
8. Demonstrated knowledge of computer hardware, software, and applications to educational/classroom use (computer literacy): EDTEC 470.
9. Completion of a fifth year of study (30 units of upper division or graduate-level coursework completed *after* issuance of the baccalaureate degree; coursework in professional preparation, including student teaching, may apply if completed after the baccalaureate degree).

The Professional Clear Single Subject credential is valid for five years and requires completion of a minimum of 150 hours of approved professional growth activities and 90 days of teaching-related activities in order to be renewed.

Single Subject—Preliminary Credential

Candidates may be recommended for Preliminary Single Subject teaching credentials when they have satisfied requirements 1, 2, 3, 4, and 5 listed above. Applicants whose academic programs allow them to meet these requirements concurrently with their baccalaureate degrees will be eligible for preliminary certification. The Preliminary credentials have the same teaching authorizations as the Professional Clear credentials and are valid for five-year periods. Holders of the Preliminary credentials must complete items 6, 7, 8, and 9 within that five-year time period in order to be renewed as Professional Clear credentials. Five-year Preliminary credentials may not be extended without completion of the additional requirements within the original five years of issuance.

NOTE: Undergraduate students in the Single Subject credential program may register for concurrent postbaccalaureate credit in their final semester prior to obtaining a baccalaureate degree as explained in the section of this catalog on "General Regulations."

Admission Standards and Qualifications for the Single Subject Credential Program

Candidates for the Single Subject Credential Program must satisfy the standards and qualifications listed below and submit complete application packets to the Center for Careers in Education within the specified application periods. Applications for program admission for the 1996 academic terms are available from Aztec Shops Copy Center during the following open enrollment dates:

For Spring 1996—August 21 through October 27, 1995

For Fall 1996—January 23 through April 5, 1996

Completed application packets will include items verifying satisfaction of the following:

1. CBEST Examination. Students must pass the California Basic Educational Skills Test (CBEST) prior to admission to the Single Subject Credential Program. Information may be obtained from the Test Office, SS-2549. Candidates are urged to take this examination as early as possible. Candidates are required to submit a photocopy of the individual score reports.

2. Subject Matter Competency. Students must verify competency in a specified single subject area through a university assessment process which consists of reviewing coursework for completion of an approved teaching major or its equivalent at San Diego State University or another approved California teacher-training institution, passing scores on the appropriate PRAXIS examinations, or a combination of coursework and examination scores. New examinations in English, Mathematics, Social Science, Biology, Chemistry, General Science, Geoscience, and Physics are being implemented effective August 31, 1995. Competency will be assessed and verified by subject matter departments at SDSU. Requirements for the various single subject majors are listed with the academic majors in this catalog. Students who have completed approved waiver programs at other universities must still be assessed by SDSU subject matter departments prior to admission to this university's credential program. Candidates may offer passing NTE/CAPA scores taken between January 1991 and August 1993 to verify subject matter competency provided those scores will still be valid at the time of recommendation for certification. Test scores submitted for verification of subject matter competency are valid for five years from the date of the examination. Information and registration materials for all current examinations are available at the Center for Careers in Education, ED-100. Students who have completed approved waiver programs at other universities must still be assessed by SDSU subject matter departments prior to admission to this University's credential program.

3. Prerequisite Course. This course or its approved equivalent must be completed with grades of "C," "CR," or higher no more than five years prior to admission to the Single Subject Credential Program:

Education 451, "Introduction to Multicultural Education."

This course provides and introduction to ethnicity, language, and culture in education, particularly the ways in which those factors differentially affect educational outcomes for children. The course assists in preparing teacher applicants to work with students from diverse backgrounds by examining both societal and personal belief systems and the ways that those beliefs are expressed in public school classrooms.

4. Grade Point Average. Candidates must have cumulative grade point averages (GPAs) within the upper one-half of undergraduate students in the candidates' majors. GPAs vary according to discipline and graduating institution. GPA requirements are available in the Center for Careers in Education, ED-100. Candidates are required to submit official transcripts from all colleges and universities attended and unofficial copies of transcripts for SDSU coursework for GPA calculations.

5. TB Clearance. Evidence of a negative tuberculosis test (these tests are valid for four years and must be in effect during the time that candidates are enrolled in the credential program). Clearance statements may be secured from Health Services, private physicians or HMO's, or public health agencies.

6. California Certificate of Clearance. This certificate represents a background clearance and check conducted by the State Department of Justice and Federal Bureau of Investigation. Turnaround time for the clearance can take as long as eight months. Possessors of K-12 California credentials may satisfy this requirement by submitting copies of those certificates. In lieu of the actual Certificate of Clearance or copy of a valid credential, candidates may submit their clearance application packets and fees concurrently with program applications.

7. Early Field Experience. All candidates are required to participate in an early field experience in the public schools prior to admission to the program. This requirement can be satisfied through documented experience of successful completion of Teacher Education 453 since August 1990.

8. Appeals Process. Candidates who do not meet all the admission requirements may petition the Single Subject Admissions and Retention Committee for individual consideration; petition forms must be submitted concurrently with the application packets.

In addition to the minimum admissions standards identified above, the Single Subject Admissions and Retention Committee also may consider qualifications such as previous teaching experience, relevant working experience with children, and second language ability. Due to the number of applicants, application to the program does not ensure admission.

NOTE: Appointments for discussion of individual concerns relative to the credential program may be made with the Single Subject Credential Program Adviser during the academic year through the Center for Careers in Education, ED-100, 594-5964. All candidates are urged to attend one of the regularly scheduled group advising sessions prior to making an individual appointment.

Single Subject Cross-Cultural Language and Academic Development (CLAD) Emphasis

(Credential Code: 00100)

The program of study leading to the Single Subject with Cross-Cultural Language and Academic Development (CLAD) emphasis prepares candidates to teach in classrooms serving the increasing number of students in our schools with limited English proficiency in situations where bilingual teachers are not available. The CLAD program provides candidates with more training than basic credential candidates in three areas: language acquisition/development, culture, and pedagogical strategies for English language development. This credential will help meet the critical shortage of bilingual teachers in California public schools by preparing entry level teachers to deliver specially-designed academic instruction in English promoting both language development and academic success in all content areas.

Candidates recommended for the Single Subject with Cross-Cultural Language and Academic Development (CLAD) emphasis must meet all the requirements for the Single Subject Preliminary Credential and satisfy the admission standards and qualifications for the Single Subject Credential Program. In addition, they must complete the following prerequisites:

1. Experience Learning a Second Language. Six semester units of college coursework in a second language or equivalent experience such as three years of high school foreign language, Peace Corps training and service or residence in a non-English speaking country.

2. Prerequisite Courses.		Units
ED 451	Introduction to Multicultural Education.....	3
LING 420	Linguistics and English	3
PLC 515	Bilingual Teaching Strategies	3
3. Single Subject CLAD Coursework.		
TE 903	Single Subject Student Teaching Seminar	2
TE 914	Teaching and Learning in the Content Area: Major	3
PLC 914	Teaching and Learning in the Content Area: Methods in English Language Development and SDAIE	3
TE 922	Behavioral and Psychological Aspects of Teaching	3
TE 933	Teaching of Reading in the Secondary School	3
TE 954	Humanistic and Social Aspects of Teaching	3
TE 963	Secondary School Student Teaching I Cr/NC/SP	3
TE 964	Secondary School Student Teaching II Cr/NC/SP	9
LING 496	Language Issues in the Secondary School.....	3
Total		32

Information Applicable to Both Multiple Subject and Single Subject Credentials

Departmental admission to either the Multiple Subject or Single Subject credential program does not constitute admission to the university. Candidates who are entering the university for the first time, or who have graduated or who are graduating, and are planning to re-enroll for the credential program must file a separate application for admission to the university during the regular university application period.

New Students Who Seek to Complete a Credential

Teachers with Preliminary Multiple Subject or Single Subject credentials who are working toward Professional Clear certification may have individual programs designed to meet their needs and interest areas. Arrangements for evaluation of college credit and program design can be made through the Center for Careers in Education, ED-100, 594-5964.

Advanced Standing in Teacher Education

A student transferring into San Diego State University to complete requirements for either the Preliminary or Professional Clear Multiple Subject or Single Subject credential must complete a minimum of six units of professional education coursework in residence at SDSU in order to be recommended for certification regardless of the extent of education work completed at other institutions.

Evaluation of Credits

After an interval of five years, courses in education are reevaluated and subject to reduction in credit, in light of new requirements and changes in educational procedures. All courses taken either at this University or elsewhere must be approved by an official adviser in order to be credited toward meeting credential requirements or pattern requirements for a degree.

GPA Requirements For Continuation in Multiple Subject/Single Subject Credential Programs

A grade point average of 3.0 must be maintained each semester to permit a student to continue in the Multiple Subject and Single Subject credential programs.

Supplementary Authorizations

With completion of additional units in certain curriculum areas, both Single and Multiple Subject teachers can be granted supplementary authorizations to teach in generalized areas in middle and junior high schools (e.g., Introductory English). Single subject teaching credential candidates can also be granted supplementary authorizations to teach in specialized areas K-12 (e.g., psychology). Information on requirements for these supplementary authorizations is available through the Center for Careers in Education, ED-100.

Description of Interdepartmental Major for Elementary Teaching

Liberal Studies Major With the B.A. Degree in Liberal Arts and Sciences

Emphasis in Three Departments (Major Code: 49011): This program is available to all students but is not acceptable for the Multiple Subject credential. Information regarding this option is presented in the section of this catalog on "Liberal Studies."

Emphasis in Education (Major Code: 49012): Liberal Studies with the B.A. degree in Liberal Arts and Sciences.

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

The Emphasis in Education major meets all the requirements for the multiple subject/diversified major as specified for the Multiple Subject credential.

Refer to the section of the catalog on "Liberal Studies" for an outline of the requirements for this major.

The following coursework is required for acceptance into the education program and may be included in the Liberal Studies major unless otherwise noted:

Education 451	Music 102
Mathematics 210	Physical Education 241A, 241B

Other students who wish to take this major must consult the Dean of the Division of Undergraduate Studies to secure program approval.

General advising for the Emphasis in Education major is available at the University Advising Center.

Children's Literature Certificate

This certificate attests that the student has successfully completed 18 units (minimum GPA 3.0) of planned, advised, coherent, and articulated study in the field of literature for children. Prerequisites include admission to the University and to upper division or graduate standing. The Certificate in Children's Literature may be earned with a specialization either in Education or in English and Comparative Literature. Nine units in the certificate program may be counted toward the major in English, and six units may be counted toward the minor in English.

Specialization in Education. Nine units from courses in group A, six units from group B, and three units of an appropriate elective chosen with the approval of a faculty adviser.

Specialization in English and Comparative Literature. Nine units from courses in group B, six units from group A, and three units of an appropriate elective chosen with the approval of a faculty adviser.

Group A, Education: Educational Technology 596; Teacher Education 496*, 530, 531.

Group B, English and Comparative Literature: Comparative Literature 561 (when offered as European Children's Literature); English 496*, 501, 526*, 527*, 528*, 549*.

* With adviser's permission when the subject is closely related to children's literature.

Courses

Note to all Multiple Subject and Single Subject credential candidates: All credential courses are listed and described in the **Graduate Bulletin** under the 900-series courses.

General

UPPER DIVISION COURSES (Intended for Undergraduates)

303. The Teaching Profession: First Clinical Experience (4) (Offered only at IVC)

Three lectures and three hours of laboratory. Social science concepts and theories for the teaching profession; guided student observation and participation in public school classrooms.

362. Fieldwork in Community Settings (2-4)

One lecture and two to six hours of activity. Prerequisites: Consent of instructor and intent to enroll in teaching credential programs. Tutoring process and teaching strategies for the content being tutored. Maximum credit six units.

397. Problems in Education (Credit to be arranged) I, II (Offered only in Extension)

Prerequisite: Consent of instructor. Class study of specially selected problems in education. Does not apply to pattern requirements for credentials. Credit earned in this course not applicable to a bachelor's degree.

402. Foundations of Education (3) I, II (Offered only at IVC)

Combines disciplines of anthropology, economics, history, philosophy, political science, psychology, and sociology to introduce student to concepts and generalizations informing the teaching and learning process in modern classrooms.

415. Methods and Materials of Instruction (3) I, II (Offered only at IVC)

Prerequisites: Admission to single subject teaching credential program and student teaching. To be taken concurrently with Teacher Education 963 or 964.

Teaching concerns, instructional planning and materials, classroom management, measurement and evaluation, effective discipline, curriculum, computer literacy, special problems encountered in teaching, career planning, school-community communication processes.

434. Teaching of Reading (3) I, II (Offered only at IVC)

Two lectures and two hours of laboratory. Nature of reading as a human behavior; various approaches and materials used to facilitate student growth in learning to read.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

499. Special Study (1-3) I, II

Prerequisite: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

508. Teaching in the Middle School (3) I, II, S

Prerequisite: Completion of or admission to a credential program in elementary or secondary education.

Developmental characteristics of early adolescents that affect teaching and learning, rationale for organizational features unique to middle schools, and interdisciplinary curriculum development.

511. Diagnosis and Remediation of Difficulties in Mathematics (3)

The assessment and remediation of underachievers in mathematics. Techniques in determining difficulties in mathematics and prescribing remedial work; for use by elementary and secondary classroom teachers and mathematics education specialists.

525. Discipline and Classroom Management (3) I, II

Prerequisite: Six upper division units in education, psychology or sociology.

Analysis of research and theories of classroom discipline, management, and teaching effectiveness, with practical application to the elementary and secondary classroom setting.

526. Teaching the Special Child in the Regular Classroom (2)

Prerequisite: Teaching credential or admission to multiple or single subject credential programs.

Knowledge, skills, and instructional programs for teaching handicapped students in the regular classroom. Meets the mainstreaming requirements for the California Multiple Subject credential (clear). Not open to students with credit in Special Education 550, Teaching the Special Child in the Regular Classroom.

530. Children's/Adolescents' Literature (3) I, II

Survey of children's/adolescents' literature and its incorporation into the classroom curriculum.

531. Storytelling (3)

Art of storytelling, including planning of the story hour, locating suitable materials, techniques for learning and presenting various story types. Selection of literature appropriate for oral presentation to different groups and age levels.

536. Assessment of Reading/Language Arts (3)

Prerequisites: Valid teaching credential and consent of instructor. Formal and informal assessment of reading and language arts abilities.

596. Topics in Teacher Education (1-3 or 6) SP* I, II

Designed to meet the needs of individuals or groups of teachers who wish to develop or continue the study of some problem. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum six units of 596 and 696 applicable to a 30-unit master's degree.

* Specified sections.

GRADUATE COURSES Refer to the Graduate Bulletin.

Telecommunications and Film

Refer to "Communication" in this section of the catalog.

Urban Studies

Refer to "Interdisciplinary Programs" in this section of the catalog.

Women's Studies

In the College of Arts and Letters

Faculty

Chair: Jones
Professors: Cayleff, Espin, Huckle, Jones, Watson, Zimmerman
Associate Professor: Kohen

Offered by Women's Studies

Major in women's studies.
Minor in women's studies.

The Major

Women's studies explores who women were, who women are, who they might be, and how their lives and human interactions are affected by society's values, traditions, and institutions. SDSU has offered courses in women's studies since 1969 and has one of the strongest academic programs in the nation. Its origins are in the women's movement, and its vision includes a world free of sexual, racial, age, and class distinctions and other inequalities.

Courses are designed to provide students with a coherent, integrated, and academically rigorous education. Content areas include concepts of self and family, theories of sex differences, history, cultural contributions, and the study of society's institutions. The emphasis is on increasing the awareness of objective conditions in women's lives throughout the world, and on developing critical analytical skills.

A degree in women's studies may be used as preparation for a wide range of careers. Professional opportunities exist in political and social agencies working with women and developing public policy on women's issues such as health care, employment, family violence, and education. Women's studies students prepare for careers in such fields as law, journalism, public administration, social services, personnel, and psychology. The skills that women's studies majors develop in critical thinking and analysis are highly valued in many additional occupations and professions today. A women's studies major may also go on to advanced academic work preparing for a career as a women's studies scholar.

Many women's studies majors plan double majors to enhance their career opportunities.

Women's Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 49991)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in women's studies courses can apply to the degree.

Students majoring in women's studies must complete a minor in another field to be approved by the chair or major adviser of the department.

Preparation for the Major. Women's Studies 201 and 205. (6 units)

Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive semesters of college study) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

OFFICE: Adams Humanities 3138
TELEPHONE: (619) 594-6524

Major. A minimum of 27 upper division units to include twelve units from Group I; nine units from Group II; and Women's Studies 590 and 595 or 597.

Group I: Women's Studies 310, 320, 325, 340, 341A-341B, 351, 352, 356, 360, 370, 375.

Group II: (Prerequisite: Three upper division units in women's studies.) Women's Studies 485, 515, 521, 522, 530, 535, 536, 553, 565, 580.

Women's Studies Minor

The minor in women's studies consists of a minimum of 18 units in women's studies to include:

Women's Studies 201, 205 and six to nine units selected from Women's Studies 310, 320, 325, 340, 341A-341B, 351, 352, 356, 360, 370, 375.

Three to six units selected from Women's Studies 485, 515, 521, 522, 530, 535, 536, 553, 565, 580, 590, 595.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Courses

LOWER DIVISION COURSES

201. Women and the Social Sciences (3) I, II

Interdisciplinary introduction to women's studies thought and scholarship in the social sciences, to include such areas as gender-based language, personality development and self-concept, social evolution, family structures, and economic life.

205. Women in Western Civilization (3) I, II

Concepts of womanhood in mythic, classic, Judeo-Christian, and major modern philosophical traditions. Images and roles of women found in the humanities; their impact and contemporary relevance.

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

310. Women in Cross-Cultural Perspective (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Women from an anthropological perspective; social, economic, legal and ideological aspects of women's position in selected preindustrial or transitional compared with industrial societies.

320. Socialization of Women (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Theories of socialization; summary of studies on the impact of formal and informal social institutions on female development.

325. Psychology of Women (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Theories of the psychological development of women; investigation of biological and cultural factors influencing personality and behavior.

340. Women in Modern European History (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Social, cultural, economic, political and ideological aspects of women's history in the modern period. Impact of modernization on roles of women in family and society from the eighteenth to the mid-twentieth centuries in Europe.

341A-341B. Women in American History (3-3) I, II

History of American social, cultural, economic, political, and intellectual institutions, focusing on the role and perspective of women. Semester I: From colonization to 1860; Semester II: From 1860 to the present. Satisfies the graduation requirement in American Institutions.

351. Women in the Arts (3)

Images of women in society as reflected in the plastic, graphic and performing arts; artistic contribution of women. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

352. Women in Literature (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Literature by and about women; appraisals of women's place in various literary genres; historical and contemporary themes; evolution of forms and techniques.

356. Women in Popular Culture (3)

Images and concepts of womanhood found in popular culture and mass media. Topics include critical theories, popular literature, television, women's magazines, myth and ritual, and the impact of feminism.

360. Women's Sexuality (3)

Historical changes in women's perceived sexual natures; role of medical and scientific expertise; research and theory on psychological, social, and cultural aspects of women's sexuality; relationships among social beliefs, expectations, customs and traditions, and among sexual behavior responses and identity.

370. Women and the Law (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Legal factors affecting women in employment, education, health and welfare, property ownership and criminal justice, including investigation of public policy issues which affect women's lives.

375. Sex, Power, and U.S. Politics (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Social, economic and political factors which explain women's political status and participation. Topics include institutional structures, leadership and ideology, power and authority, and the women's movement as a political movement.

485. Women's Work (3)

Prerequisites: Three upper division units in women's studies; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Conditions and factors affecting women's paid and unpaid work. Marriage, divorce, fertility, and childcare; women's occupations, earnings and education; the economics of sex discrimination; government economic policies and women's welfare.

496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

498. Field Internship (3) I, II Cr/NC

Prerequisites: Three upper division units in women's studies and consent of instructor.

Observation and analysis of public and private agencies which deal primarily with women in the San Diego area. Maximum credit six units.

499. Special Study (1-3)

Prerequisites: Three upper division units and consent of the department chair and instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

515. Women: Mythology and Ritual (3)

Prerequisite: Three upper division units in women's studies.

Meanings and functions of myths and rituals in their sacred and secular aspects, emphasizing their impact on women's lives and relationships in differing cultural contexts, past and present.

521. Life Cycles of Women (3)

Prerequisite: Three upper division units in women's studies.

Women's developmental processes across the life cycle; their impact on women, men, and the family, including life passages related to adolescence, marriage, motherhood, divorce, widowhood, "second careers," and aging in varying socioeconomic and cultural contexts.

522. Women: Madness and Sanity (3)

Prerequisite: Three upper division units in women's studies.

Concepts of mental health and mental illness as applied to women. Theory of psychotherapy, both traditional and feminist. Alternative approaches to mental health.

530. International Women's Movement (3)

Prerequisite: Three upper division units in women's studies.

Comparative study of women's movements worldwide in past and present, to include discussion of issues such as female bonding, leadership, and women's goals and strategies to achieve them within local, national, and global contexts. (Formerly numbered Women's Studies 330.)

535. Lesbian Lives and Cultures (3)

Prerequisite: Consent of instructor.

Historical, cultural, and social exploration of lesbianism. Topics include myths and stereotypes, history and literature, social and political movements, theoretical explanations, and current conditions. (Formerly numbered Women's Studies 335.)

536. Women, Race, and Class (3)

Prerequisite: Three upper division units in women's studies.

Major issues and themes in the history, culture, and contemporary lives of women of color in the U.S. Analysis of theories explaining similarities and differences in opportunities and life choices. Roles within social and political movements.

553. Women Writers (3)

Prerequisite: Three upper division units in women's studies.

Literary, historical, and social consideration of women writers; may focus on one author, era, or theme. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units. Limit of three units applicable to the major in women's studies.

565. Women, Health, and Medicine (3)

Prerequisite: Three upper division units in women's studies.

Historical and contemporary relationship of women to alternative and traditional healing systems. Illness labeling, folk-healing beliefs, sectarian medicine, reproduction, birth control, life-cycle events, roles as practitioners and patients, ethical controversies, and aging.

580. Women and International Development (3)

Prerequisite: Three upper division units in women's studies.
Women's roles as agents and recipients of change worldwide, focusing on such issues as self-determination, education, family and work, food and hunger, and reproduction.

590. Feminist Thought (3) I

Prerequisite: Six upper division units in women's studies.
Readings in feminist theory and contemporary theoretical perspectives on core concepts and issues in feminist scholarship. Focus on understanding from a feminist perspective and on the significance of analyzing female experiences.

595. Seminar in Women's Studies (3) II

Prerequisites: Six upper division units in women's studies and consent of instructor.

Directed research in women's studies. Field of investigation will vary with instructor. Methods of investigation, development of bibliography, presentation of paper based on original research. See Class Schedule for specific content.

596. Topics in Women's Studies (3)

Prerequisite: Consent of instructor.

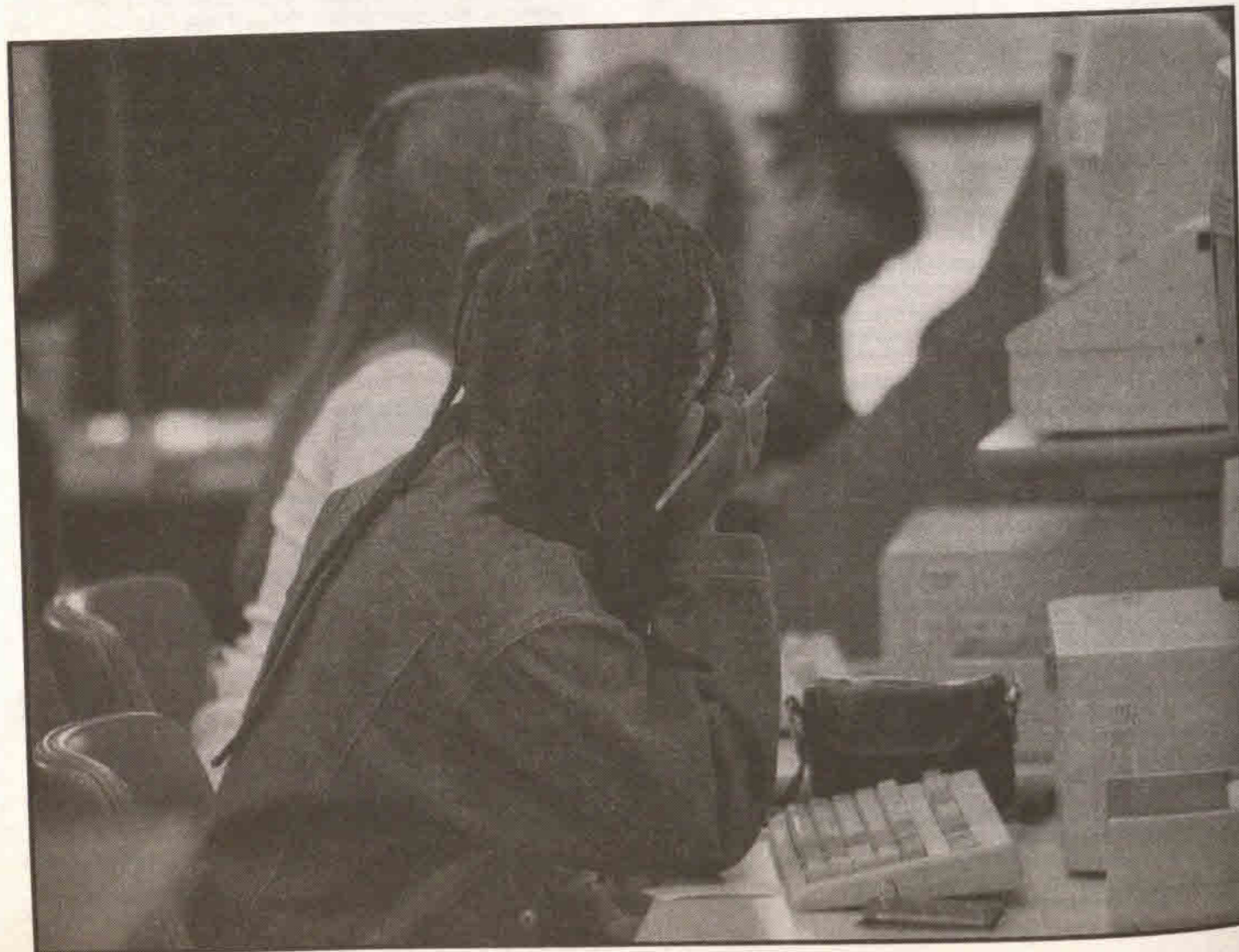
Advanced topics in women's studies. See Class Schedule for specific content. May be repeated with new content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

597. Research Project (3) I, II

Prerequisites: Six upper division units in women's studies and consent of adviser.

Individual research project. May be taken in place of Women's Studies 595, Seminar in Women's Studies.

GRADUATE COURSES
Refer to the Graduate Bulletin.



Addenda

Faculty and Administration

Index

SDSU Campus Map

Faculty and Administration 1994-1995

Day, Thomas B. (1978).....*President, Professor of Physics*
B.S., University of Notre Dame; Ph.D., Cornell University.

Abbott, Patrick L. (1971).....*Professor of Geological Sciences*
B.S., San Diego State University; M.A., Ph.D., University of Texas at Austin.

Abul, Hüseyin (1981).....*Professor of Electrical and Computer Engineering*
B.S.E.E., Robert College; M.S.E.E., Ph.D., North Carolina State University.

Adams, Joseph A. (1994).....*Assistant Professor of Chemistry*
B.S., Rutgers University; Ph.D., Pennsylvania State University.

Addo, Theophilus (1987).....*Associate Professor of Information and Decision Systems*
B.Sc., University of Ghana; M.B.A., Indiana University; M.S.T.M., American University; Ph.D., Indiana University, Bloomington.

Adelman, Edward J. (1992).....*Assistant Professor of Aerospace Studies*
B.S., University of Arizona; M.P.A., Angelo State University.

Adler, Renatte K. (1982).....*Professor of Economics*
B.A. Ph.D., University of New Mexico.

Aguado, Edward (1982).....*Professor of Geography*
B.A., M.A., University of California, Los Angeles; Ph.D., University of Wisconsin.

Aguilar, Isabel (1972).....*Counselor, Imperial Valley Campus*
A.B., M.S., San Diego State University.

Airman, William D. (1993).....*Professor of Aerospace Studies*
B.S., United States Air Force Academy; M.S., Boston University.

Aitken, Stuart C. (1986).....*Professor of Geography*
B.Sc., Glasgow University; M.A., Miami University; Ph.D., University of Western Ontario.

Ajemian, James A. (1970).....*Assistant Professor of Social Work*
A.B., Harvard University; M.S., Columbia University; Ph.D., University of Michigan.

Albers, Harry R. (1993).....*Vice President for University Relations and Development*
B.S., University of Pittsburgh; M.S., Cornell University.

Alcosser, Sandra B. (1986).....*Professor of English*
B.A., Purdue University; M.F.A., University of Montana.

Alfred, Lawrence J. (1994).....*Assistant Dean for Underrepresented Student Programs, College of Sciences; Professor of Biology*
B.S., Xavier University; M.S., Ph.D., University of Illinois.

Allen, Barbara E. (1969, except S'70).....*Lecturer in Teacher Education*
A.B., M.A., San Diego State University.

Allen, Brockenbrough S. (1982).....*Professor of Educational Technology*
A.B., M.A., University of California, Berkeley; Ph.D., University of Southern California.

Allen, Elizabeth J. (1971).....*Professor of Communicative Disorders*
A.B., Seattle Pacific College; M.A., Ph.D., Louisiana State University.

Allen, Michael F. (1988).....*Professor of Biology*
B.S., Southwestern College, Kansas; M.S., Ph.D., University of Wyoming.

Allison, Alida L. (1990).....*Assistant Professor of English and Comparative Literature*
B.A., M.A., San Diego State University; Ph.D., University of California, Riverside.

Almond, Frank W. (1968).....*Professor of Music*
A.B., M.A., San Diego State University; Ph.D., Florida State University.

Alvarado, Elizabeth R. (1974).....*Counselor, Educational Opportunity and Ethnic Affairs*
A.B., California State University, Northridge; M.S., San Diego State University.

Anantha, Kasi (1981).....*Professor of Mathematical Sciences*
B.A., M.Sc., Ph.D., Madras University.

Andersen, Janis F. (1981).....*Professor of Communication*
B.A., M.A., Bradley University; Ed.D., West Virginia University.

Andersen, Peter A. (1981, except 1983-85).....*Professor of Communication*
B.A., University of Illinois; M.S., Illinois State University; Ph.D., Florida State University.

Anderson, Bonnie M. (1988).....*Assistant Dean, Undergraduate Studies; Lecturer in Drama*
B.A., Mills College; M.A., California State University, Fullerton; Ph.D., University of California, Santa Barbara.

Anderson, Dwight G. (1969).....*Professor of Political Science*
A.B., University of Montana; M.A., Ph.D., University of California, Berkeley.

Anderson, Hayes L. (1966).....*Associate Dean, College of Professional Studies and Fine Arts; Professor of Communication*
A.B., Oregon State University; M.A., Ph.D., Michigan State University.

Andrain, Charles F. (1964).....*Professor of Political Science*
A.B., Whittier College; M.A., Ph.D., University of California, Berkeley.

Angione, Ronald J. (1969).....*Professor of Astronomy*
A.B., M.S., San Diego State University; Ph.D., University of Texas.

Annas, Alicia M. (1970).....*Professor of Drama*
A.B., University of Detroit; M.F.A., University of Texas.

Archibald, J. David (1983).....*Professor of Biology*
B.S., Kent State University; Ph.D., University of California, Berkeley.

Armstrong, Barbara (1988).....*Associate Professor of Teacher Education*
B.S., Illinois State University; M.Ed., Ph.D., University of Arizona.

Atkins, Bobbie J. (1969).....*Professor of Administration, Rehabilitation and Postsecondary Education*
B.A., Southern University in Baton Rouge; M.S., Ph.D., University of Wisconsin, Madison.

Atkins-Kaplan, Catherine J. (1988).....*Assistant Dean for Student Affairs, College of Sciences; Professor of Psychology*
A.B., M.S., San Diego State University; Ph.D., University of California, Riverside.

Aufsesser, Peter M. (1975).....*Professor of Exercise and Nutritional Sciences*
B.S., Springfield College; Ed.M., State University of New York, Buffalo; Ph.D., University of Maryland.

Austin, Joan F. (1970).....*Professor of Art*
A.B., California State University, Long Beach; M.F.A., Cranbrook Academy of Art.

Avila, Vernon L. (1973).....*Associate Professor of Biology*
B.S., University of New Mexico; M.A., Northern Arizona University; Ph.D., University of Colorado.

Awbrey, Frank T. (1964).....*Professor of Biology*
A.B., University of California, Riverside; M.A., Ph.D., University of Texas.

Ayala, Reynaldo (1969).....*Professor of Geography, Imperial Valley Campus*
B.A., University of Minnesota; M.L.S., Texas Woman's University; M.A., Ph.D., Southern Illinois University.

Baase, Sara (1972).....*Professor of Mathematical Sciences*
A.B., New York University; M.A., Ph.D., University of California, Berkeley.

Baber, Carolyn D. (1987).....*Associate Librarian*
B.S., Illinois State University; M.S., University of Illinois at Urbana-Champaign.

Bacon, Elizabeth A. (1975).....*Director, Disabled Student Services*
A.B., M.S., San Jose State University.

Bailey, Allan R. (1968).....*Dean, College of Business Administration; Professor of Accountancy*
B.S., San Diego State University; M.B.A., Ph.D., University of California, Los Angeles.

Bailey, Greg W. (1982).....*Associate Professor of Electrical and Computer Engineering and Mechanical Engineering*
B.A., M.A., San Diego State University; Ed.D., Arizona State University.

Baily, Stewart D. (1993).....*Assistant Professor of Naval Science*
B.A., University of Colorado, Boulder.

Baker, Richard J. (1978).....*Professor of Art*
B.F.A., Kansas City Art Institute; M.F.A., University of Cincinnati.

Balch, Pamela M. (1988).....*Associate Dean for Academic Affairs, Imperial Valley Campus; Professor of Teacher Education, Imperial Valley Campus*
B.A., West Virginia Wesleyan College; M.A., Ed.D., West Virginia University.

Balkwell, Carolyn K. (1981).....*Professor of Child and Family Development*
B.S., Michigan State University; M.S., Kansas State University; Ph.D., University of Georgia.

Bell, Joseph W. (1975).....*Professor of Anthropology*
A.B., Fordham University; M.A., Ph.D., University of Wisconsin.

Ballesteros, David (1983).....*Dean, Imperial Valley Campus; Professor of Spanish and Policy Studies in Language and Cross-Cultural Education, Imperial Valley Campus*
B.A., University of Redlands; M.A., Middlebury College; Ph.D., University of Southern California.

Banks, James H. (1976).....*Professor of Civil and Environmental Engineering*
B.E., Vanderbilt University; M.S., Ph.D., University of California, Berkeley.

Bar-Lev, Zev (1979).....*Professor of Linguistics*
A.B., Columbia College; M.A., Cornell University; Ph.D., Indiana University.

Barnett, Andrew, H. (1983).....*Professor of Accountancy*
B.B.A., M.B.A., Baylor University; D.B.A., Texas Technological University.

Barnett, Carol A. (1971).....*Professor of Biology*
A.B., Hendrix College; M.S., University of Arkansas Medical Center; Ph.D., University of Texas.

Baron, Lawrence (1988).....*The Nasatir Professor of Modern Jewish History*
B.A., University of Illinois; M.A., Ph.D., University of Wisconsin.

Barra, Donald P. (1983).....*Professor of Music*
A.B., University of Rochester; M.S., Juilliard School of Music; Ed.D., Columbia University.

Barrera, Ernesto M. (1969).....*Professor of Spanish*
Doctor en Leyes, University of Cartagena, Colombia; M.A., Ph.D., University of Southern California.

Bartholomew, Francis M., Jr. (1967).....*Associate Professor of History*
A.B., University of California, Berkeley; M.A., Ph.D., Princeton University.

Bayasi, M. Ziad (1990).....*Assistant Professor of Civil and Environmental Engineering*
B.S., Damascus University, Syria; M.S., South Dakota State University; M.S., Ph.D., Michigan State University. Registered Professional Engineer.

Beach, Wayne A. (1984).....*Professor of Communication*
B.A., Drake University; M.A., University of Montana; Ph.D., University of Utah.

Beatty, James R. (1973).....*Professor of Information and Decision Systems*
A.B., Franklin College; M.S., Indiana State University; Ph.D., University of Northern Colorado.

Beck, Lawrence A. (1982, except F'85-S'86).....*Associate Professor of Recreation, Parks and Tourism*
B.S., Humboldt State University; M.A., Azusa Pacific University; Ph.D., University of Minnesota.

Beck, Leland L. (1980).....*Professor of Mathematical Sciences*
A.B., Rice University; M.A.S., Ph.D., Southern Methodist University.

Becklund, Lester A. (1967).....*Professor of Teacher Education*
B.S., M.Ed., Ph.D., University of Minnesota.

Bee, Clifford P. (1969).....*Professor of Teacher Education*
A.B., M.A., Western Michigan University; Ph.D., Michigan State University.

Behrie, Thomas J. (1995).....*Associate Professor of Naval Science*
B.S., United States Naval Academy; M.S., Naval Postgraduate School.

Belasco, James A. (1971).....*Professor of Management*
B.S., Cornell University; M.B.A., Hofstra University; Ph.D., Cornell University.

Belch, George E. (1980).....*Professor of Marketing*
B.S., Pennsylvania State University; M.S., University of Colorado; Ph.D., University of California, Los Angeles.

Belch, Michael A. (1976).....*Professor of Marketing*
B.S., Pennsylvania State University; M.B.A., Drexel University; Ph.D., University of Pittsburgh.

Bender, Stephen J. (1970).....*Professor of Public Health*
B.S., Brockport State University; M.S., H.S.D., Indiana University; M.P.H., University of California, Los Angeles.

Benkov, Edith J. (1983).....*Professor of French*
B.A., M.A., Ph.D., University of California, Los Angeles.

Bennett, Larry E. (1970).....*Professor of Chemistry*
B.S., San Diego State University; Ph.D., Stanford University.

Benson, Jackson J. (1966).....*Professor of English*
A.B., Stanford University; M.A., San Francisco State University; Ph.D., University of Southern California.

Berelowitz, Jo-Anne (1993).....*Assistant Professor of Art*
B.A., University of Witwatersrand; M.A., Stanford University; Ph.D., University of California, Los Angeles.

Berg, Marlowe J. (1970).....*Professor of Teacher Education*
B.S., M.A., Ph.D., University of Minnesota.

Bernstein, Sanford I. (1983).....*Professor of Biology*
B.S., State University of New York at Stony Brook; Ph.D., Wesleyan University.

Berry, Richard W. (1961).....*Professor of Geological Sciences*
B.S.E.M., Lafayette College; M.A., Ph.D., Washington University.

Berta, Annalisa (1982).....*Professor of Biology*
B.A., University of Washington; Ph.D., University of California, Berkeley.

Bertine, Kathe K. (1973).....*Professor of Geological Sciences*
A.B., Vassar College; M.A., M.Ph., Ph.D., Yale University.

Betancourt, Ramon (1984).....*Associate Professor of Electrical and Computer Engineering*
B.S., University of Guadalajara; M.A., Technological Institute of Monterrey; M.A., Ph.D., University of Wisconsin, Madison.

Beuchat, Carol (1990).....*Associate Professor of Biology*
A.B., M.A., Occidental College; Ph.D., Cornell University.

Bezuk, Nadine S. (1987).....*Associate Professor of Teacher Education*
B.S., University of Pittsburgh; M.A., Ph.D., University of Minnesota.

Bhattacharjee, Subrata (1991).....*Associate Professor of Mechanical Engineering*
B.Tech., Indian Institute of Technology, India; M.S., Ph.D., Washington State University.

Bizzoco, Richard L. (1977).....*Professor of Biology*
A.B., University of Connecticut; M.S., California State University, Long Beach; Ph.D., Indiana University.

Blenner, Janet L. (1986).....*Professor of Nursing*
B.S.N., Long Island University; M.A., Ph.D., New York University.

Block, Martin J. (1979).....*Assistant Dean, College of Education*
B.A., Indiana University; J.D., DePaul University.

Block, Russell L. (1969).....*Associate Professor of Finance*
A.B., San Diego State University; J.D., University of California, Berkeley.

Blue, Carroll Parrott (1984).....*Associate Professor of Communication*
B.A., Boston University; M.F.A., University of California, Los Angeles.

Boddy, Ralord D. (1980).....*Professor of Economics*
A.B., University of California, Riverside; Ph.D., University of Michigan.

Boe, Alfred F. (1968).....*Associate Professor of English and Comparative Literature*
A.B., M.A., Ph.D., University of Arizona.

Boostrom, Ronald L. (1971).....*Professor of Public Administration and Urban Studies*
A.B., California State University, Long Beach; M.Crim., D.Crim., University of California, Berkeley.

Borges, Marilyn A. (1974).....*Professor of Psychology*
A.B., University of Hawaii; M.A., Ohio Wesleyan University; Ph.D., University of California, San Diego.

Borkat, Roberta F. (1969).....*Professor of English*
A.B., Cornell University; Ph.D., University of California, San Diego.

Boskin, Warren D. (1965).....*Associate Professor of Public Health*
B.S., Brooklyn College; M.S., University of Illinois; Ed.D., West Virginia University.

Full-Time Faculty

- Bosseau, Don L. (1982)** University Librarian
B.S., Kansas State University; M.S., University of Kansas; M.L.S., University of Hawaii.
- Bost, John C. (1979)** Associate Professor of Finance
B.S., San Diego State University; J.D., Hastings College of the San Francisco Law.
- Boyd, John S. (1993)** Professor of Naval Science
B.S., Arizona State University; M.S., University of La Verne.
- Boyd, William D. (1986)** Director, Financial Aid
B.A., M.Ed., Pennsylvania State University.
- Brady, Richard C. (1977)** Associate Professor of Special Education
B.S., University of Southern California; M.A., Fresno State; Ph.D., University of Southern California.
- Branan, Alvord G. (1969)** Professor of French
B.S., University of Florida; B.F.T., Thunderbird American Graduate School of Management; M.A., Middlebury College; Ph.D., Tulane University.
- Branca, Nicholas A. (1976)** Professor of Mathematical Sciences
B.S., Iona College; M.A.T., Harvard University; Ed.D., Teachers College, Columbia University.
- Bray, Henry G. (1962)** Professor of Mathematical Sciences
A.B., San Diego State University; M.S., Ph.D., Iowa State University.
- Breindl, Michael J. (1986)** Professor of Biology
M.S., University of Hamburg; Ph.D., Kiel University.
- Broom, Betty L. (1979, except F'85-S'86)** Associate Professor of Nursing
B.S.N., University of Illinois; M.S.N., University of Wisconsin, Madison; Ph.D., University of Texas at Austin.
- Broom, Glen M. (1979)** Professor of Communication
B.S., M.S., University of Illinois; Ph.D., University of Wisconsin.
- Brown, Harold K. (1971)** Associate Dean for Community Economic Development,
College of Business Administration
A.B., San Diego State University; M.B.A., Fordham University.
- Brown-Cheatham, Michaelanthony (1991)** Assistant Professor of Counseling and
School Psychology
B.A., New School for Social Research; M.A., Ph.D., The City University of New York.
- Bruderer, Conrad (1963)** Professor of Music
B.M., Oberlin Conservatory; M.M., D.M., Indiana University.
- Bryson, Jeff B. (1970)** Professor of Psychology
A.B., University of Texas; M.S., Ph.D., Purdue University.
- Bryson, Rebecca B. (1972)** Associate Dean, College of Sciences;
Professor of Psychology
A.B., Queens College; M.S., Ph.D., Purdue University.
- Buck, Robert E. (1969)** Associate Professor of Sociology
B.S., M.S., Trinity University; Ph.D., University of Texas.
- Buckalew, James K. (1967)** Professor of Communication
A.B., M.A., Indiana State College; Ph.D., University of Iowa.
- Bumpus, Jerry D. (1971)** Professor of English
A.B., University of Missouri; M.F.A., University of Iowa.
- Buono, Michael J. (1982)** Professor of Exercise and Nutritional Sciences
B.S., East Stroudsburg State College; M.S., University of Nevada; Ph.D., University of Arizona.
- Burdick, David L. (1968)** Associate Professor of Mathematical Sciences
A.B., University of California, Berkeley; M.A., Ph.D., University of New Mexico.
- Burkett, Richard A. (1989)** Associate Professor of Art
B.A., Lawrence University; M.F.A., Indiana University, Bloomington.
- Burnett, Lowell J. (1972)** Professor of Physics
B.S., Portland State University; M.S., Ph.D., University of Wyoming.
- Burns, James S. (1994)** Assistant Professor of Mechanical Engineering
B.S., Pennsylvania State University; Ph.D., University of Delaware.
- Burt, Sharon D. (1987)** Lecturer in Nursing
B.S., San Francisco State University; M.S.N., University of San Diego.
- Butler, David H. (1981)** Professor of Accountancy
B.S., University of Cincinnati; M.B.A., Indiana University; Ph.D., University of Cincinnati.
- Butler, Gerald J. (1968)** Professor of English
A.B., University of California, Berkeley; M.A., Ph.D., University of Washington.

- Butler, Mark C. (1981)** Professor of Management
B.A., M.A., San Diego State University; Ph.D., Texas Christian University.
- Calavita, Nico (1980)** Associate Professor of Public Administration
and Urban Studies
Ph.D., University of Florence, Italy.
- Calfas, Karen (1992)** Director of Health Promotion, Student Health Services
B.A., Pacific Lutheran University; Ph.D., San Diego State University and University of California, San Diego.
- Callender, Lucinda R. (1988)** Assistant Professor of Political Science
B.A., M.A., Ph.D., Ohio State University.
- Capettini, Robert J. (1985)** The Price Waterhouse Alumni Professor of Accountancy
B.B.A., M.B.A., University of Toledo; Ph.D., University of Illinois at Urbana-Champaign.
- Car, Michael A. (1981)** Records Officer and Judicial Coordinator
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- Henry, Edward O. (1974)** Professor of Anthropology
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- Hill, Richard B., Jr. (1969)** Assistant Professor of Sociology,
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- Howard, Edgar J. (1966)** Professor of Mathematical Sciences
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- Phleger, Charles F. (1971)**..... *Professor of Biology*
A.B., Stanford University; M.A., San Diego State University; Ph.D., University of California, San Diego.
- Pierce, Stephen J. (1984)**..... *Professor of Mathematical Sciences*
B.S., Stanford University; Ph.D., University of California, Santa Barbara.
- Pierucci, Mauro (1979)**..... *Professor of Aerospace Engineering and Engineering Mechanics*
B.S., M.S., Ph.D., Polytechnic Institute of New York.
- Piland, William E. (1987)**..... *Professor of Administration, Rehabilitation and Postsecondary Education*
B.S., M.S., Ed.D., Northern Illinois University.
- Pinto, John G. (1979)**..... *Professor of Mechanical Engineering*
B.E., B.D.T., College of Engineering; M.A.Sc., University of Toronto; Ph.D., University of California, San Diego.
- Pisarchio, Robert J. (1966)**..... *Professor of Physics*
B.S., M.S., Ph.D., University of Arizona.
- Plotkin, Allen (1985)**..... *Professor of Aerospace Engineering and Engineering Mechanics*
B.S., M.S., Columbia University; Ph.D., Stanford University.
- Plotnik, Rod (1970)**..... *Professor of Psychology*
A.B., St. John's College; M.S., University of Miami; Ph.D., University of Florida.
- Pointer, Dennis D. (1991)**..... *The John J. Hanton Chair in Health Services Research and Policy*
B.Sc., Iowa State University of Science and Technology; Ph.D., University of Iowa.
- Polich, John L. (1969)**..... *Associate Professor of History, Imperial Valley Campus*
B.S., Loyola University; M.S., M.A., University of Southern California; Ph.D., University of New Mexico.
- Polkinhorn, Harry (1984)**..... *Professor of English; Director, SDSU Press*
B.A., University of California, Berkeley; M.A. (English), M.A. (Art), San Diego State University; Ph.D., New York University.
- Ponce, Victor M. (1980)**..... *Professor of Civil and Environmental Engineering*
B.S., National University of Engineering, Peru; M.S., Ph.D., Colorado State University.
- Poole, Deborah (1989)**..... *Associate Professor of Rhetoric and Writing Studies and Linguistics*
B.A., Emory University; M.A., Ph.D., University of Southern California.
- Popp, Dean O. (1969)**..... *Associate Vice President for Faculty Affairs; Professor of Economics*
A.B., Willamette University; M.S., Ph.D., Purdue University.
- Powell, Patrick A.D. (1990)**..... *Associate Professor of Electrical and Computer Engineering*
B.Sc., University of British Columbia; M.Math., Ph.D., University of Waterloo.
- Pozos, Robert S. (1994)**..... *Assistant Dean for Faculty Development, College of Sciences; Professor of Biology*
B.S., St. Mary's College; M.S., Ph.D., Southern Illinois University.
- Preston, David L. (1971)**..... *Professor of Sociology*
A.B., Stanford University; M.A., Ph.D., University of Illinois.
- Price, Joseph M. (1989)**..... *Associate Professor of Psychology*
B.A., Rockmont College; M.A., University of Colorado; Ph.D., Purdue University.
- Price, Judy M. (1972)**..... *Associate Professor of Psychology*
A.B., Stanford University; M.A., Ph.D., Columbia University.
- Pritchard, David C. (1978)**..... *Associate Professor of Social Work*
A.B., M.A., Middlebury College; M.S.W., San Diego State University; Ph.D., University of Southern California.
- Pryde, Philip R. (1969)**..... *Professor of Geography*
A.B., Amherst College; M.A., Ph.D., University of Washington.
- Puerto, Cecilia (1994)**..... *Senior Assistant Librarian*
B.A., Sangamon State University; M.A., University of California, Santa Barbara; M.S., University of Illinois at Urbana-Champaign.
- Pugh, Darrell L. (1981)**..... *Professor of Public Administration and Urban Studies*
B.A., M.P.A., San Diego State University; Ph.D., University of Southern California.
- Pullman, David P. (1994)**..... *Assistant Professor of Chemistry*
A.B., Princeton University; M.A., Ph.D., Harvard University.

Full-Time Faculty

- Pumpian, Ian R. (1976)** *Professor of Special Education*
B.S., M.S., Ph.D., University of Wisconsin.
- Quastier, Imre E. (1967)** *Professor of Geography*
A.B., Wayne State University; M.A., Northwestern University; Ph.D., University of Kansas.
- Quinn, Rebecca A. (1971)** *Assistant Professor of Exercise and Nutritional Sciences*
B.S.E., M.S., Central Missouri State College; Ph.D., University of Iowa.
- Quintana, P.J.E. (Jenny) (1995)** *Assistant Professor of Public Health*
B.S., University of California, Davis; M.P.H., San Diego State University; Ph.D., University of California, Berkeley.
- Raafat, Feraidoon (1986)** *Professor of Information and Decision Systems*
B.S., Phillips University; B.S., M.I.E., Ph.D., Oklahoma State University.
- Radlow, Robert (1968)** *Professor of Psychology*
B.S., The City University of New York; M.S., Ph.D., Pennsylvania State University.
- Rahiotis, Miguel (1984)** *Counselor, Imperial Valley Campus*
A.B., M.S., San Diego State University.
- Rapps, Jane A. (1983, except F'92-S'93)** *Lecturer in Nursing*
B.S., California State University, Fresno; M.S.Ed., University of Southern California; M.S., University of Maryland.
- Ray, Eugene (1969)** *Professor of Art*
B.A., Louisiana State University; M.F.A., Tulane University.
- Rayle, David L. (1970)** *Professor of Biology*
A.B., Ph.D., University of California, Santa Barbara.
- Rea, Louis M. (1975)** *Professor of Public Administration and Urban Studies*
A.B., Colgate University; M.R.P., Ph.D., Syracuse University.
- Real, Michael R. (1980)** *Professor of Communication*
A.B., St. Paul Seminary; M.A., College of St. Thomas; Ph.D., University of Illinois.
- Reed, Richard C. (1984)** *Associate Professor of Nursing*
B.A., Kent State University; B.S.N., Mt. St. Mary College; M.Ed., Columbia University; Ed.D., University of Tulsa.
- Reed, Stephen K. (1988)** *Professor of Psychology*
B.A., University of Wisconsin; Ph.D., University of California, Los Angeles.
- Reh fuss, Donald E. (1962)** *Professor of Physics*
A.B., Reed College; M.A., Ph.D., University of Oregon.
- Reid, William N. (1983)** *Associate Professor of Drama*
B.S., West Texas State University; M.A., University of Arizona; M.F.A., California State University, Long Beach.
- Reilly, Judy S. (1986)** *Professor of Psychology*
A.B., M.A., Ph.D., University of California, Los Angeles.
- Rey, Sergio J., Jr. (1992)** *Assistant Professor of Geography*
B.S., Stockton State College; M.A., Ph.D., University of California, Santa Barbara.
- Reyes, Rogelio (1986)** *Associate Professor of Linguistics, Imperial Valley Campus*
B.A., Mexico City College; Ph.D., Harvard University.
- Rhine, Lawrence C. (1987)** *Associate Professor of Management*
B.S., M.B.A., University of Missouri; Ph.D., Northwestern University.
- Rigby, Ida K. (1976)** *Professor of Art*
A.B., M.A., Stanford University; M.A., Ph.D., University of California, Berkeley.
- Riley, Edward P. (1988)** *Professor of Psychology*
B.A., Rutgers University; M.Sc., Ph.D., Tulane University.
- Ring, Morey A. (1962)** *Professor of Chemistry*
B.S., University of California, Los Angeles; Ph.D., University of Washington.
- Ritchie, Donn C. (1990)** *Assistant Professor of Educational Technology*
B.S., University of Akron; M.S., University of Wyoming; Ph.D., Utah State University.
- Robascioti, Carole A. (1980)** *Assistant Dean for Student Affairs, College of Professional Studies and Fine Arts; Lecturer in Exercise and Nutritional Sciences*
B.S., University of West Florida; M.S., Kansas State University.
- Roberts, Frank N., Jr. (1992)** *Professor of Military Science*
B.S., United States Military Academy; M.M.A.S., United States Army Command and General Staff College.
- Roberts, Lissa (1989)** *Associate Professor of History*
B.A., University of Washington; M.A., Ph.D., University of California, Los Angeles.

- Roberts-Fields, Gail C. (1976)** *Professor of Art*
B.F.A., M.A., University of New Mexico.
- Robinet, E. Jane (1993)** *Assistant Professor of English and Rhetoric and Writing Studies, Imperial Valley Campus*
B.A., Goshen College; M.A., Ph.D., University of Notre Dame.
- Robinson, Cynthia (1972)** *Career Counselor*
A.B., M.P.A., M.S., San Diego State University.
- Robinson, Gail L. (1989)** *Professor of Spanish and Linguistics*
B.A., Boston University; M.A., University of Hawaii; Ph.D., Stanford University.
- Robinson-Zañartu, Carol A. (1980)** *Associate Professor of Counseling and School Psychology*
A.B., West Virginia Wesleyan College; M.Ed., Boston University; Ph.D., University of Pittsburgh.
- Rockwell, Thomas K. (1983)** *Professor of Geological Sciences*
B.S., University of Nevada; Ph.D., University of California, Santa Barbara.
- Rodin, Miriam J. (1966)** *Professor of Psychology*
A.B., M.A., Ph.D., University of California, Los Angeles.
- Rodriguez, José D. (1977)** *Professor of Mexican American Studies*
A.B., San Diego State University; Ph.D., University of California, San Diego.
- Roeder, Stephen B. W. (1968)** *Professor of Physics and Chemistry*
A.B., Dartmouth College; Ph.D., University of Wisconsin.
- Rogers, Gloria H. (1985)** *Associate Librarian*
B.A., National Taiwan University; M.L.S., University of California, Berkeley; M.A., San Diego State University.
- Rogers, John J. (1963)** *Professor of Art*
B.S., M.S., University of Wisconsin.
- Rogers, William N., II (1968)** *Professor of English and Comparative Literature*
A.B., Stanford University; M.A., Ph.D., University of California, Berkeley.
- Rohrl, Vivian J. (1965)** *Professor of Anthropology*
A.B., M.A., University of Chicago; Ph.D., University of Minnesota.
- Rojas, Gonzalo G. (1976)** *Director, Student Outreach Services*
B.A., University of California, Los Angeles; M.S., San Diego State University.
- Root, William A. (1983)** *Lecturer in Mathematical Sciences*
A.B., M.S., San Diego State University.
- Rose, Shirley K. (1988)** *Associate Professor of Rhetoric and Writing Studies*
B.S., Manhattan Christian College; M.A., Kansas State University; Ph.D., University of Southern California.
- Rosenstein, Leon (1969)** *Professor of Philosophy*
A.B., Ph.D., Columbia University.
- Ross, Helen Warren (1973)** *Professor of Child and Family Development*
A.B., Rockford College; M.A., American University; Ph.D., Catholic University of America.
- Ross, James E. (1969)** *Professor of Mathematical Sciences*
B.M., Ph.D., University of Minnesota.
- Ross, Kathleen H. (1968)** *Director, Scholarship Office*
A.B., M.S., San Diego State University.
- Ross, Pamela J. (1977)** *Associate Professor of Teacher Education*
B.A., Lake Erie College; M.A., M.S., Ph.D., University of Pennsylvania.
- Rossett, Allison (1977)** *Professor of Educational Technology*
A.B., Beaver College; Ed.D., University of Massachusetts at Amherst.
- Rother, James (1969)** *Professor of English and Comparative Literature*
A.B., M.A., McGill University; Ph.D., University of California, Santa Barbara.
- Roush, Sally F. (1982)** *Vice President for Business and Financial Affairs*
B.A., University of Denver.
- Rumbaut, Rubén G. (1985)** *Professor of Sociology*
B.A., Washington University; M.A., Ph.D., Brandeis University.
- Rushall, Brent S. (1985)** *Professor of Exercise and Nutritional Sciences*
B.A., Sydney University; M.S., Ph.D., Indiana University.
- Russum, Kathleen L. (1975)** *Director of Academic Services, Imperial Valley Campus*
A.B., San Diego State University.

- Ryan, Richard W. (1982)** *Professor of Public Administration and Urban Studies, Imperial Valley Campus*
B.A., The Citadel, Charleston, South Carolina; M.P.A., California State University, Hayward; Ph.D., University of Southern California.
- Saarmann, Lembi (1986)** *Associate Professor of Nursing*
B.S.N., M.S.N., Adelphi University; Ed.D., Teachers College, Columbia University.
- Saba, Farhad (1984)** *Professor of Educational Technology*
B.A., M.A., San Francisco State University; Ph.D., Syracuse University.
- Sabath, Michael J. (1993)** *Associate Professor of Public Administration and Urban Studies, Imperial Valley Campus*
B.S., University of California, Berkeley; M.P.A., California State University, Chico; Ph.D., University of Pittsburgh.
- Sabbadini, Roger A. (1977)** *Professor of Biology*
A.B., Ph.D., University of California, Davis.
- Saccuzzo, Dennis P. (1975)** *Professor of Psychology*
A.B., Sonoma State University; M.A., Ph.D., Kent State University.
- Sachdeva, Kanwal S. (1976)** *Associate Professor of Finance*
B.Com., Delhi University; M.B.A., D.B.A., Indiana University.
- Saghafi, Massoud M. (1987)** *Associate Professor of Marketing*
B.A., National University of Iran; M.A., Ph.D., University of Southern California.
- Salamon, Peter (1980)** *Professor of Mathematical Sciences*
A.B., Lindenwood College; M.S., Drexel University; Ph.D., University of Chicago.
- Salehizadeh, Mehdi (1980)** *Professor of Finance*
B.S., M.B.A., Ph.D., University of Wisconsin.
- Sallis, James F., Jr. (1983)** *Professor of Psychology*
B.S., Belhaven College; M.S., Ph.D., Memphis State University.
- Saltz, Daniel (1959)** *Professor of Mathematical Sciences*
A.B., B.S., University of Chicago; M.S., Ph.D., Northwestern University.
- Salzer, Beeb (1982)** *Professor of Drama*
B.A., M.F.A., Yale University.
- Samimi, Behzad S. (1984)** *Professor of Public Health*
B.S., M.S.P.H., Teheran University; M.S.P.H., Ph.D., Tulane University. Certified Industrial Hygienist.
- Samovar, Larry A. (1963)** *Professor of Communication*
A.B., California State University, Los Angeles; M.S., Ph.D., Purdue University.
- Samuelson, Richard A. (1973)** *Professor of Accountancy*
B.S., Northwestern University; M.B.A., University of Chicago; Ph.D., University of California, Los Angeles. Certified Public Accountant.
- Sandback, Patricia R. (1974)** *Professor of Dance*
B.S., University of Minnesota; M.A., San Diego State University; M.F.A., University of California, Irvine.
- Santa Cruz, Rafaela M. (1980)** *Associate Professor of Teacher Education*
B.S., M.S., University of Southern California; Ph.D., University of Arizona.
- Savvas, Minas (1968)** *Professor of English and Comparative Literature*
A.B., M.A., University of Illinois; Ph.D., University of California, Santa Barbara.
- Scheck, Dennis C. (1968)** *Professor of Sociology*
A.B., MacMurray College; M.S., Ph.D., Purdue University.
- Scheidel, Mary (1977)** *Test Officer*
B.S., Pennsylvania State University; M.S., San Diego State University.
- Schlesinger, Robert J. (1984)** *Professor of Information and Decision Systems*
B.S., University of Connecticut; M.S., West Coast University, Los Angeles; Ph.D., Henley Management College, Brunel University, Middlesex, England.
- Schorr, James L. (1983)** *Professor of French*
B.A., M.A., Ph.D., University of Texas at Austin.
- Schreiber, Loren P. (1994)** *Assistant Professor of Drama*
B.A., M.A., Louisiana State University; M.F.A., San Diego State University.
- Schulte, Richard H. (1965)** *Professor of Psychology*
A.B., Michigan State University; M.A., Ph.D., University of Illinois.
- Schultze, William A. (1968)** *Professor of Political Science*
A.B., Nebraska Wesleyan University; M.A., Ph.D., Rutgers University.
- Schulze, Rolf H. K. (1969)** *Professor of Sociology*
A.B., University of North Dakota; M.A., Ph.D., Michigan State University.
- Schweizer, Earle G. (1995)** *Assistant Professor of Naval Science*
B.S., Villanova University.

- Sciglimpaglia, Donald (1977)** *Professor of Marketing*
B.S.I.E., University of Florida; M.S., University of West Florida; D.B.A., University of Colorado, Boulder.
- Scollay, Patricia A. (1972)** *Associate Professor of Psychology*
A.B., University of California, Berkeley; M.A., Ph.D., University of California, Davis.
- Scott, Carole A. (1969)** *Dean, Undergraduate Studies; Associate Professor of English*
A.B., M.A., McGill University; Ph.D., University of California, Santa Barbara.
- Scutchfield, F. Douglas (1980)** *Professor of Public Health*
B.S., Eastern Kentucky University; M.D., University of Kentucky.
- Segade, Gustavo V. (1967)** *Professor of Spanish*
A.B., M.A., Ph.D., University of Arizona.
- Segall, Anca Mara (1994)** *Assistant Professor of Biology*
B.S., University of Maryland; Ph.D., University of Utah.
- Seidman, Robert L. (1981)** *Associate Professor of Public Health*
A.B., San Diego State University; M.A., Ph.D., Johns Hopkins University.
- Seitz, Michael R. (1985)** *Professor of Communicative Disorders*
B.A., M.A., Ph.D., University of Washington.
- Selder, Dennis J. (1968)** *Professor of Exercise and Nutritional Sciences*
B.P.E., M.P.E., University of British Columbia; Ph.D., Ohio State University.
- Senn, Karen L. (1977)** *Professor of Public Health*
A.B., Marygrove College; Ed.D., Temple University; M.P.H., University of Minnesota.
- Senour, Maria Nieto (1977)** *Professor of Counseling and School Psychology*
A.B., Mangrove College; M.Ed., University of Toledo; Ph.D., Wayne State University.
- Seright, Orin D. (1967)** *Associate Professor of Linguistics*
A.B., University of Colorado; M.A., University of Arkansas; Ph.D., Indiana University.
- Shackelford, Gordon L. (1975)** *Associate Dean for External Relations, College of Sciences; Lecturer in Physics*
B.S., M.S., San Diego State University.
- Shaffer, Allen W. (1989)** *Associate Professor of Astronomy*
B.A., University of California, Irvine; M.A., Ph.D., University of California, Los Angeles.
- Shapovalov, Veronica (1988)** *Associate Professor of Russian*
Diploma, Leningrad State University; M.A., Sangamon State University; Ph.D., University of Illinois at Urbana-Champaign.
- Sharabi, M. Nazmi (1981)** *Associate Professor of Civil and Environmental Engineering*
B.S., University of Damascus; M.S., University of Minnesota; Ph.D., University of Texas.
- Sharpe, David M. (1977)** *Coordinator of Instructional Development, Media Technology Services*
A.B., M.A., San Diego State University; Ed.D., Indiana University.
- Sharts, Clay M. (1962)** *Professor of Chemistry*
B.S., University of California, Berkeley; Ph.D., California Institute of Technology.
- Shaw, Larry J. (1968)** *Professor of Teacher Education*
A.B., Sioux Falls College; M.Ed., Ed.D., University of Nebraska.
- Sheldon, John M. (1962)** *Professor of Music*
B.Sc., University of North Dakota; M.A., Arizona State University; Ed.D., University of Southern California.
- Sheposh, John P. (1968)** *Professor of Psychology*
A.B., M.A., Ph.D., Wayne State University.
- Sheres, Ita G. (1971)** *Professor of English and Comparative Literature*
A.B., Hebrew University; M.A., Ph.D., University of Wisconsin.
- Sherr, Steven D. (1969)** *Counselor*
A.B., City College of New York; M.A., Temple University; Ph.D., University of Missouri.
- Sherrard, William R. (1968)** *Professor of Information and Decision Systems*
A.B., M.B.A., Ph.D., University of Washington.
- Shimoguchi, Wayne M. (1988)** *Senior Assistant Librarian*
B.S., University of California, Davis; M.L.I.S., O.D., University of California, Berkeley.
- Shirk, Helen Z. (1976)** *Professor of Art*
B.S., Skidmore College; M.F.A., Indiana University.
- Shively, Martha J. (1978)** *Associate Professor of Nursing*
B.S.N., University of Maryland; M.A., University of Washington; Ph.D., University of Texas at Austin.
- Shojai, Donald A. (1971)** *Professor of English and Comparative Literature*
A.B., Harvard University; M.A., Ph.D., University of Michigan.

Full-Time Faculty

- Shore, Herbert B. (1975)** *Professor of Physics*
B.S., Massachusetts Institute of Technology; Ph.D., University of California, Berkeley.
- Short, Donald R., Jr. (1969)** *Dean, College of Sciences; Professor of Mathematical Sciences*
A.B., University of California, Los Angeles; Ph.D., Oregon State University.
- Short, James L. (1973)** *Professor of Finance*
B.S., M.S., Ph.D., University of California, Los Angeles.
- Shumaker, Jeanette (1992)** *Assistant Professor of English, Imperial Valley Campus*
B.A., University of Redlands; M.A., Ph.D., Claremont Graduate School.
- Silverman, Malcolm N. (1975)** *Professor of Spanish and Portuguese*
A.B., The City University of New York; M.A., Ph.D., University of Illinois.
- Siman, Alan E. (1974)** *Associate Professor of Social Work*
A.B., Franklin and Marshall College; M.S.S., Ph.D., Bryn Mawr College.
- Simas, Rick A. (1992)** *Assistant Professor of Drama*
B.A., San Francisco State University; M.A., University of California, Los Angeles; Ph.D., University of California, Berkeley.
- Simmons, Roger (1976)** *Professor of Exercise and Nutritional Sciences*
M.S., University of Wyoming; Ph.D., University of Iowa.
- Simon, David R. (1986)** *Professor of Criminal Justice Administration, Imperial Valley Campus*
B.A., University of Illinois; M.A., University of Kentucky; Ph.D., Rutgers University.
- Simpson, Michael G. (1986)** *Professor of Biology*
B.S., University of Florida; M.S., University of North Carolina; Ph.D., Duke University.
- Singer, Ethan A. (1979)** *Associate Vice President, Academic Affairs; Associate Professor of Public Administration and Urban Studies*
A.B., University of Connecticut; M.P.A., Ph.D., University of Southern California.
- Singh, Harinder (1985)** *Professor of Economics*
B.A., M.A., D.A.V. College, India; Ph.D., University of Illinois at Chicago.
- Skwara, Erich W. (1986)** *Professor of Humanities and German*
B.A., University of Linz; M.A., University of Salzburg; Ph.D., State University of New York at Albany.
- Sleet, David A. (1974)** *Professor of Exercise and Nutritional Sciences*
A.B., M.A., San Diego State University; Ph.D., University of Toledo.
- Slymen, Donald J. (1988)** *Professor of Public Health*
A.B., University of California, Berkeley; M.S., University of California, Los Angeles; Ph.D., University of Iowa.
- Smith, Annette R. (1985, except F'85-S'87)** *Lecturer in Social Work*
B.A., Barnard College; M.A., University of California, San Diego; M.S.W., University of California, Berkeley.
- Smith, Barney I. (1993)** *Assistant Professor of Military Science*
B.A., State University of New York College at Brockport.
- Smith, Beverly A. (1968)** *Assistant Professor of Exercise and Nutritional Sciences*
B.S., West Virginia Wesleyan College; M.S., Ohio University.
- Smith, Diane K. (1990)** *Assistant Professor of Chemistry*
B.S., Lewis and Clark College; Ph.D., Massachusetts Institute of Technology.
- Smith, Jane K. (1968, except 1970)** *Assistant Vice President for Academic Services*
B.S., West Virginia University; M.A., Northwestern University; Ph.D., University of Southern California.
- Smith, Morgan H., Jr. (1993)** *Assistant Professor of Naval Science*
B.S., University of San Diego.
- Smith, Ray T., Jr. (1964)** *Professor of History*
A.B., Southern Methodist University; M.A., Ph.D., University of California, Berkeley.
- Smith, William R. (1979)** *Assistant Director for Student Services, Financial Aid*
B.S., Lincoln University; M.Ed., University of Missouri.
- Snyder, Willard S., Jr. (1984, except S'85)** *Lecturer in Accountancy*
B.S., M.B.A., University of Southern California.
- Sondak, Norman E. (1978)** *Professor of Information and Decision Systems*
B.S. C.C.N.Y.; M.S., Northwestern University; D.Eng., Yale University.
- Sonek, Alexander, Jr. (1968)** *Assistant Professor of Anthropology*
A.B., City College of New York; M.A., Ph.D., University of Oregon.

- Song, Moon H. (1988)** *Associate Professor of Finance*
B.B.A., Seoul National University; M.A., Ph.D., Ohio State University.
- Soule, John W. (1970)** *Professor of Political Science*
A.B., M.A., Michigan State University; Ph.D., University of Kentucky.
- Sowder, Judith T. (1986)** *Professor of Mathematical Sciences*
B.A., Seattle University; M.S., University of Notre Dame; Ph.D., University of Oregon.
- Sowder, Larry K. (1986)** *Professor of Mathematical Sciences*
B.S., M.A.T., Indiana University; Ph.D., University of Wisconsin.
- Sparks, Irving Alan (1974)** *Professor of Religious Studies*
A.B., Davidson College; B.D., Union Theological Seminary in Virginia; S.T.M., Lancaster Theological Seminary; Ph.D., Claremont Graduate School.
- Sparrow, Glen W. (1980)** *Professor of Public Administration and Urban Studies*
A.B., M.A., San Jose State University; Ph.D., Claremont Graduate School.
- Spevak, Joseph E. (1969)** *Assistant Professor of Communication*
B.S., Kent State University; M.S., Boston University; Ph.D., University of Iowa.
- Spindler, Audrey A. (1977)** *Professor of Exercise and Nutritional Sciences*
B.S., George Washington University; M.S., Ph.D., Colorado State University.
- Spinetta, John J. (1972)** *Professor of Psychology*
A.B., M.A., Gonzaga University; Ph.D., University of Southern California.
- Spitzberg, Brian H. (1989)** *Professor of Communication*
B.A., University of Texas at Arlington; M.A., Ph.D., University of Southern California.
- Springer, Arthur (1968)** *Associate Professor of Mathematical Sciences*
B.S., Illinois Institute of Technology; Ph.D., University of California, Berkeley.
- Spottle, Nancy C. (1981)** *Assistant Vice President for Student Affairs; Director, Admissions and Records*
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- Stampf, Barry G. (1982)** *Associate Professor of English, Imperial Valley Campus*
B.A., Yale University; M.A., University of New Mexico; Ph.D., University of California, Santa Barbara.
- Stampf, Ronald W. (1988)** *Professor of Marketing*
B.B.A., M.B.A., University of Wisconsin, Milwaukee; Ph.D., University of Wisconsin, Madison.
- Stanford, E. Percil (1973)** *Professor of Social Work*
A.B., Morgan State College; M.S., Ph.D., Iowa State University.
- Starr, Raymond G. (1964)** *Professor of History*
A.B., Ph.D., University of Texas.
- Stauffer, Thomas David (1984)** *Professor of Music*
B.A., University of California, Riverside; M.M., Music Academy of Zagreb, Zagreb, Yugoslavia; M.A., University of California, Davis.
- Steele, Richard W. (1967)** *Professor of History*
A.B., Queens College; M.A., University of Wisconsin; M.A., Ph.D., Johns Hopkins University.
- Steffey, Duane L. (1988)** *Associate Professor of Mathematical Sciences*
B.S., M.S., Ph.D., Carnegie-Mellon University.
- Steinberg, Dan (1989)** *Associate Professor of Economics*
B.A., University of Toledo; M.A., University of Western Ontario; Ph.D., Harvard University.
- Sterk, William E. (1978)** *Professor of Finance*
B.S.E., University of Michigan; M.B.A., Ph.D., University of Wisconsin.
- Stewart, Douglas B. (1971)** *Professor of Economics*
B.S., University of Portland; M.S., Ph.D., University of Oregon.
- Stewart, Kris (1984)** *Associate Professor of Mathematical Sciences*
B.A., University of California, San Diego; M.S., San Diego State University; Ph.D., University of New Mexico.
- Stites, Francis N. (1968)** *Professor of History*
A.B., Marian College; M.A., Ph.D., Indiana University.
- Stock, Robert L. (1975)** *Associate Professor of Public Administration and Urban Studies*
A.B., M.P.A., Ph.D., University of Pittsburgh.
- Stoddart, Jess L. (1966)** *Professor of History*
A.B., Carroll College; M.A., University of Nebraska; Ph.D., University of California, Berkeley.

- Stoesz, David P. (1986)** *Professor of Social Work*
B.S., Springfield College; M.S.W., Ohio State University; D.S.W., University of Maryland at Baltimore.
- Stow, Douglas A. (1983)** *Professor of Geography*
B.A., M.A., Ph.D., University of California, Santa Barbara.
- Strand, Paul J. (1977)** *Dean, College of Arts and Letters; Professor of Political Science*
A.B., Macalester College; M.A., University of Illinois, Chicago; Ph.D., Ohio State University.
- Stratton, Frank E. (1966)** *Professor of Civil and Environmental Engineering*
B.S., San Diego State University; M.S., Ph.D., Stanford University. Registered Professional Engineer.
- Streshly, William A. (1990)** *Professor of Administration, Rehabilitation and Postsecondary Education*
B.A., University of California, Berkeley; M.A., San Diego State University; Ph.D., United States International University.
- Strom, David W. (1968)** *Professor of Teacher Education*
A.B., M.A., Ed.D., Wayne State University.
- Stumph, William E. (1983)** *Professor of Chemistry*
B.S., Purdue University; Ph.D., California Institute of Technology.
- Stutz, Frederick P. (1970)** *Professor of Geography*
A.B., Valparaiso University; M.S., Northwestern University; Ph.D., Michigan State University.
- Sucato, Vincent (1974)** *Assistant Professor of Social Work*
A.B., State University of New York; M.S.W., Fordham University; Ph.D., Rutgers State University.
- Sucec, Anthony A. (1967)** *Professor of Exercise and Nutritional Sciences*
A.B., M.A., San Diego State University; Ed.D., University of California, Berkeley.
- Supernak, Janusz C. (1984)** *Professor of Civil and Environmental Engineering*
B.S., M.S., Ph.D., Technical University of Warsaw.
- Suto, Masako (1984)** *Professor of Electrical and Computer Engineering*
B.S., Ochanomizu Women's University; M.S., Ph.D., Tokyo University of Education.
- Sutton, L. Paul (1981)** *Professor of Public Administration and Urban Studies*
B.A., University of Kansas; M.A., Ph.D., State University of New York.
- Sweedler, Alan R. (1980)** *Professor of Physics*
B.S.C., The City University of New York; Ph.D., University of California, San Diego.
- Sweedler-Brown, Carol O. (1975)** *Professor of Rhetoric and Writing Studies*
B.A., University of Massachusetts at Amherst; Ph.D., University of California, San Diego.
- Swiniarski, Roman W. (1988)** *Professor of Mathematical Sciences*
M.S., Ph.D., Warsaw Technical University.
- Szeto, Andrew Y. J. (1983)** *Professor of Electrical and Computer Engineering*
B.S., University of California, Los Angeles; M.S.E.E., M.E.E.E., University of California, Berkeley; Ph.D., University of California, Los Angeles. Registered Professional Engineer.
- Talbert, Freddie D. (1968)** *Associate Professor of Astronomy*
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- Tarokh, Mahmoud (1990)** *Professor of Mathematical Sciences*
B.S., Tehran Polytechnic Institute; M.S., University of Birmingham; Ph.D., University of New Mexico.
- Teagarden, Mary B. (1986)** *Associate Professor of Management*
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- Templin, Jacques D. (1962)** *Professor of Physics*
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- Terrell, Louis M. (1969)** *Professor of Political Science*
A.B., Williams College; M.A., Ph.D., Stanford University.
- Terry, Linda L. (1990)** *Associate Professor of Counseling and School Psychology*
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- Thai, Donna J. (1990)** *Professor of Communicative Disorders*
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- Thile, Edmund L. (1967)** *Professor of Communicative Disorders*
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- Thompson, Alba G. (1990)** *Professor of Mathematical Sciences*
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- Thompson, Gordon M. (1969)** *Associate Dean, College of Education; Associate Professor of Counseling and School Psychology*
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- Thompson, Larry D. (1982)** *Associate Professor of Mechanical Engineering*
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- Thompson, Patrick W. (1990)** *Professor of Mathematical Sciences*
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- Thorbjarnarson, Kathryn W. (1991)** *Assistant Professor of Geological Sciences*
B.S., University of Rochester; M.S., North Carolina State University; Ph.D., University of California, Los Angeles.
- Thwaites, William M. (1965)** *Associate Professor of Biology*
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- Thyagarajan, Kadayam S. (1980)** *Professor of Electrical and Computer Engineering*
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- Tisue, Garold L. (1976)** *Director, Student Resource Center*
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- Tong, William G. (1985)** *Professor of Chemistry*
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- Toole, Howard R. (1972)** *Professor of Accountancy*
B.S., M.B.A., University of California, Berkeley; Ph.D., University of Iowa.
- Toombs, Charles (1991)** *Assistant Professor of Africana Studies*
B.A., M.A., M.S., Ph.D., Purdue University.
- Torikachvili, Milton S. (1987)** *Professor of Physics*
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- Tran, My Luong (1981)** *Associate Professor of Teacher Education*
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- Treadway, Gerald H., Jr. (1970)** *Professor of Teacher Education*
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- Troxell, Eugene A. (1966)** *Associate Professor of Philosophy*
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- Tsoukas, Constantine (1986)** *Professor of Biology*
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- Turhollow, C. Anne (1982)** *Associate Librarian*
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- Tyagi, Pradeep K. (1982)** *Professor of Marketing*
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- Underhill, Robert (1972)** *Professor of Linguistics*
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- Vails-Weber, Dorothy V. (1970)** *Counselor*
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- Valle, Juan Ramon (1974)** *Professor of Social Work*
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- Vandenberg, Pieter A. (1969)** *Professor of Finance*
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- Vanier, Dinoo T. (1970)** *Professor of Marketing*
B.Com., Sydenham College of Commerce & Economics, Bombay; M.B.A., M.A., Ph.D., University of California, Berkeley.
- Van Sickle, Douglas J. (1978)** *Director, Counseling and Psychological Services*
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- Vartanian, Pershing (1968)** *Professor of History*
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- Velasquez, Roberto J. (1987)** *Associate Professor of Counseling and School Psychology*
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- Venable, Carol F. (1987)** *Associate Professor of Accountancy*
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- Venieris, Yiannis P. (1967)** *Professor of Economics*
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- Verity, Larry S. (1984)** *Associate Professor of Exercise and Nutritional Sciences*
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- Vik, Gretchen N. (1975)** *Professor of Information and Decision Systems*
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- Villone, Arnold L. (1968)** *Professor of Mathematical Sciences*
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- Vinge, Vernor S. (1972)** *Associate Professor of Mathematical Sciences*
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- Walshok, Marco G. (1969)** *Assistant Professor of Public Administration and Urban Studies*
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- Weeks, John R. (1974)** *Professor of Geography*
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- Westermo, Bruce D. (1980)** *Professor of Civil and Environmental Engineering*
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- Weston, Thomas S. (1974)** *Professor of Philosophy*
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- Wheeler, James L. (1968)** *Associate Professor of English and Comparative Literature*
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- Whisenant, John D. (1995)** *Assistant Professor of Aerospace Studies*
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- White, Phillip M. (1985)** *Associate Librarian*
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- Whitman, David G. (1969)** *Associate Professor of Mathematical Sciences*
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- Whitney, Dan (1966)** *Professor of Anthropology*
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- Whitney, Mark F. (1992)** *Assistant Professor of Child and Family Development*
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- Whitney, Roger E. (1985)** *Associate Professor of Mathematical Sciences*
B.S., North Dakota State University; Ph.D., University of California, San Diego.
- Whittenburg, Gerald E. (1976)** *The KPMG Peat Marwick / Charles W. Larmden Professor of Taxation*
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- Whittington, O. Ray (1978)** *Professor of Accountancy*
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- Wilbur, Robert W. (1974)** *Associate Dean and Director for Undergraduate Program, College of Business Administration; Associate Professor of Finance*
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E.M.B.A., Claremont Graduate School.
- Williams, Diane R. (1975)** *Assistant Professor of Communicative Disorders*
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- Williams, Kathy S. (1987)** *Associate Professor of Biology*
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- Williams, Stephen J. (1980)** *Professor of Public Health*
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- Williams, Susan L. (1990)** *Associate Professor of Biology*
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- Williams, Terry A. (1986)** *Lecturer in Rhetoric and Writing Studies*
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- Williamson, James E. (1968)** *Professor of Accountancy*
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- Willis, George C. (1967)** *Associate Professor of Dance*
A.B., M.A., California State University, Los Angeles; M.F.A., Arizona State University.
- Willis, Winnie O. (1984)** *Associate Professor of Public Health*
B.A., Jersey City State College; M.S., Harvard University; Sc.D., Johns Hopkins University.

- Wilson, Carlos G. (1992)** *Professor of Spanish*
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- Wilson, Carole (1981)** *Associate Librarian*
B.A., Ohio Wesleyan University; M.R.E., Union Theological Seminary, New York City; M.L.S., University of California, Los Angeles.
- Wilson, Patricia A. (1990)** *Assistant Professor of Public Administration and Urban Studies*
B.A., M.A., University of Michigan; D.P.A., George Mason University.
- Winslow, Robert W. (1965)** *Professor of Sociology*
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- Wolf, R. Craig (1987)** *Professor of Drama*
B.A., Knox College; M.F.A., Stanford University.
- Wong-Boren, Adrian (1983)** *Professor of Accountancy*
C.P.A., E.C.A., Universidad de Coahuila; M.B.A., Instituto de Estudios Superiores de Monterrey; Ph.D., Virginia Polytechnic Institute.
- Woo, Catherine Yi-yu Cho (1970)** *Professor of Chinese*
A.B., M.A., San Diego State University; Ed.D., University of San Francisco.
- Wood, James L. (1975)** *Professor of Sociology*
A.B., M.A., Ph.D., University of California, Berkeley.
- Woodson, John H. (1961)** *Professor of Chemistry*
A.B., Wesleyan University, Connecticut; Ph.D., Northwestern University.
- Wotruba, Thomas R. (1962)** *Professor of Marketing*
B.B.A., M.B.A., Ph.D., University of Wisconsin.
- Wozniak, Dolores A. (1976)** *Dean, College of Health and Human Services; Professor of Nursing*
B.S., Hunter College; M.A., Ed.M., Ed.D., Columbia University.
- Wright, Penny L. (1972)** *Professor of Management*
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- Wright, Richard D. (1964)** *Professor of Geography*
A.B., A.M., Indiana University; Ph.D., University of Kansas.
- Wulfeck, Beverly B. (1994)** *Associate Professor of Communicative Disorders*
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- Wulfemeyer, K. Tim (1976, except F'80-S'87)** *Professor of Communication*
A.B., San Diego State University; M.S., Iowa State University; Ed.D., University of California, Los Angeles.

- Yang, Yeong-Ling (1988)** *Associate Professor of Information and Decision Systems*
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- Yapelli, Tina Marie (1985)** *Associate Professor of Art*
B.A., Loyola Marymount University; M.A., California State University, Fullerton.
- Yaremko, Robert M. (1969)** *Professor of Psychology*
A.B., University of Florida; M.A., Ph.D., Ohio University.
- Yates, Charles D. (1970)** *Professor of Music*
A.B., San Diego State University; M.A., California State University, Long Beach.
- Yeager, Bill (1985)** *Professor of Music*
B.M., M.M., North Texas State University.
- Young, Arthur (1967)** *Professor of Astronomy*
B.S., Allegheny College; M.A., Ph.D., Indiana University.
- Young, Ronald R. (1971)** *Associate Professor of Spanish*
A.B., Wisconsin State University; A.M., Ph.D., University of Illinois.
- Young, Russell L. (1987)** *Assistant Professor of Policy Studies in Language and Cross-Cultural Education*
B.A., University of California, San Diego; M.Ed., University of Hawaii; Ph.D., San Diego State University and Claremont Graduate School.
- Yu, Elena S. H. (1990)** *Professor of Public Health*
M.S., University of Notre Dame; M.P.H., Columbia University in the City of New York; Ph.D., University of Notre Dame.
- Zedler, Joy B. (1972)** *Professor of Biology*
B.S., Augustana College; M.S., Ph.D., University of Wisconsin.
- Zedler, Paul H. (1969)** *Professor of Biology*
B.S., University of Wisconsin, Milwaukee; M.S., Ph.D., University of Wisconsin.
- Zhang, Zheng-Sheng (1990)** *Assistant Professor of Chinese*
B.A., Beijing Teacher's College, Peoples Republic of China; M.A., Ph.D., Ohio State University.
- Zimmerman, Bonnie (1978)** *Professor of Women's Studies*
A.B., Indiana University; Ph.D., State University of New York at Buffalo.
- Zuniga, Maria E. (1985)** *Professor of Social Work*
B.A., University of San Diego; M.S.W., University of California, Berkeley; Ph.D., Brandeis University.
- Zupko, John A. (1989)** *Associate Professor of Philosophy*
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- Zyskind, Judith W. (1982)** *Professor of Biology*
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Adams, Elsie B., Ph.D. (1971-1994).....Professor of English and Comparative Literature

Adams, William J., Ph.D. (1955-1983).....Professor of Speech Communication

Akers, Fred C., Ph.D. (1966-1976).....Associate Professor of Marketing

Alexander, James V., Ph.D. (1967-1984).....Associate Professor of Botany

Aif, Jr., Edward F., Ph.D. (1963-1988).....Professor of Psychology

Altamura, Nicholas C., Ph.D. (1967-1983).....Associate Professor of Secondary Education

Anderson, Allan W., Ph.D. (1962-1985).....Professor of Religious Studies

Anderson, Arthur J. O., Ph.D. (1961-1975).....Professor of Anthropology

Anderson, Evans L., Ed.D. (1954-1981).....Professor of Education

Anderson, Graydon K., Ph.D. (1949-1979).....Professor of Economics

Anderson, Paul V., M.M. (1954-1983).....Professor of Music

Anderson, W. Carlisle, Ph.D. (1955-1981).....Professor of Industrial Studies

Andrus, Ruth, Ph.D. (1962-1982).....Professor of Physical Education

Anthony, Sally M., Ed.D. (1965-1990).....Professor of Educational Technology

Apple, L. Eugene, Ph.D. (1985-1991).....Assistant Professor of Marketing

Archer, E. C. Jack, Ed.D. (1956-1979).....Professor of Information Systems

Atchison, Thomas J., Ph.D. (1965-1992).....Professor of Management

Atkins, Michael D., Ph.D. (1970-1992).....Professor of Biology

Bablot, George, Ph.D. (1956-1991).....Professor of Economics

Bailey, Gerald D., Ed.D. (1964-1992).....Professor of Industrial Technology

Baily, Kamilla U., M.S.W. (1966-1977).....Associate Professor of Social Work

Baker, Douglas L., Ed.D. (1952-1979, except 1953).....Professor of Elementary Education

Baker, James R., Ph.D. (1956-1986, except 1961-1962).....Professor of English and Comparative Literature

Baker, Keefe L., M.F.A. (1965-1984).....Professor of Art

Baldwin, Elmer D., Ed.D. (1963-1988).....Professor of Education, Imperial Valley Campus

Barber, William F., Ph.D. (1959-1991).....Director, Graduate Programs, College of Business Administration; Professor of Marketing

Barckley, Robert E., Ph.D. (1955-1985).....Professor of Economics

Barclay, A. Bernice, M.A.L.S. (1962-1986).....Associate Librarian

Barnes, Alfred C., H.S.D. (1977-1981).....Associate Professor of Health Science

Barone, Joan F., M.S. (1960-1992).....Associate Professor of Physical Education

Bauer, Edward G., M.S. (1956-1976).....Professor of Mechanical Engineering

Baxter, William L., Ph.D. (1963-1992).....Professor of Biology

Bedore, Robert L., M.S.M.E., Professional Degree in Mechanical Engineering (1959-1992).....Professor of Mechanical Engineering

Bell, Jr., Charles B., Ph.D. (1961-1992).....Professor of Mathematical Sciences

Benenson, Abram S., M.D. (1982-1992).....Lecturer in Public Health

Benjamin, Robert L., Ph.D. (1953-1986).....Professor of Speech Communication

Benton, Carl W., Ed.D. (1948-1983).....Professor of Physical Education

Berg, Robert V., M.F.A. (1963-1992).....Professor of Art

Bigelow, Marybelle S., M.A. (1956-1980).....Professor of Art

Bigger, W. Richard, Ph.D. (1952-1981).....Professor of Public Administration and Urban Studies

Biggs, Millard R., Ph.D. (1958-1986).....Professor of Music

Billetterman, Henry L., M.A. (1956-1977).....Assistant Professor of Mechanical Engineering

Birch, Aileen J., M.A. (1949-1978).....Assistant Professor of Elementary Education

Black, Barbara B., M.S. (1970-1988).....Professor of Nursing

Blanc, Sam S., Ed.D. (1966-1981).....Professor of Elementary Education

Blick, James D., Ph.D. (1966-1985).....Associate Professor of Geography

Bloomberg, Jr., Warner, Ph.D. (1973-1989).....Professor of Sociology

Blyth, John D., Ed.D. (1957-1983).....Professor of Music

Boggs, Wilma T., M.S. (1971-1977).....Assistant Professor of Family Studies and Consumer Sciences

Bohnsack, Kurt K., Ph.D. (1956-1983).....Professor of Zoology

Boney, Elaine E., Ph.D. (1963-1986).....Professor of German

Botkin, Patricia T., Ed.D. (1969-1988).....Associate Professor of Teacher Education

Bradley, Wallace W., M.A. (1961-1973).....Assistant Professor of Secondary Education

Brady, F. Neil, Ph.D. (1982-1994).....Professor of Management

Brandt, Charles L., Ph.D. (1957-1992).....Professor of Biology

Branstetter, R. Deane, Ph.D. (1955-1981).....Professor of Mathematical Sciences

Brashear, Howard C., Ph.D. (1968-1992).....Professor of English

Brennen, E. Clifford, D.S.W. (1978-1983).....Professor of Social Work

Briggs, Robert M., Ed.D. (1957-1985).....Professor of Teacher Education

Broadbent, Harry H., M.S. (1949-1979).....Associate Professor of Physical Education

Broderick, William A., Ed.D. (1977-1994).....Administrator, Media Technology Services

Brodshatzer, Arthur, D.B.A. (1956-1986).....Professor of Accountancy

Brooks, Baylor, B.A. (1931-1966).....Professor of Geology

Brown, Lee, Ph.D. (1978-1994).....Professor of Journalism

Brown, Robert E., Ph.D. (1979-1992).....Professor of Music

Brown, Ruth M. C., Ph.D. (1971-1986).....Associate Professor of English and Comparative Literature

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Bruce, Paul, Ph.D. (1957-1989).....Professor of Counselor Education

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Bryant, Steven J., Ph.D. (1964-1978).....Associate Professor of Mathematical Sciences

Burgess, William C., Ed.D. (1961-1992).....Professor of Health Science

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Carpenter, Roger E., Ph.D. (1963-1993).....Professor of Biology

Carter, J. E. Lindsay, Ph.D. (1962-1992).....Professor of Physical Education

Castro (Castillo), Susana D., Ph.D. (1985-1994).....Professor of Spanish

Cave, Mary F., M.A. (1946-1977).....Associate Professor of Physical Education

Chan, S. Yun, Ph.D. (1965-1979).....Professor of Electrical Engineering

Emeritus Faculty

Charles, Carol M., Ph.D. (1961-1988)	Professor of Teacher Education
Chater, Elizabeth E., M.A. (1964-1977)	Professor of English
Clark, Margaret A., Ed.D. (1966-1986)	Associate Professor of Teacher Education
Clark, Mary E., Ph.D. (1969-1986)	Professor of Biology
Cohen, Lester M., M.S.W. (Under contract 1969-1970; 1970-1984)	Assistant Professor of Social Work
Cohn, Theodore J., Ph.D. (1964-1992)	Professor of Biology
Collier, Gerald, Ph.D. (1961-1995)	Professor of Biology
Colombo, Albert A., M.A. (1967-1982)	Assistant Professor of Geography
Conway, John B., Ph.D. (1981-1992)	Professor of Public Health
Cooke, Gwen C., Ph.D. (1978-1992)	Professor of Family Studies and Consumer Sciences
Cooper, Gwen O., Ed.D. (1966-1991)	Counselor
Covington, Donald P., M.A. (1965-1992)	Professor of Art
Crain, Melvin, Ph.D. (1959-1983)	Professor of Political Science
Crawford, Maurice L., Ed.D. (1954-1988)	Professor of Information and Decision Systems
Crisley, Cornelius J., M.L.S. (1962-1990)	Senior Assistant Librarian
Crisley, Patricia J., M.A.L.S. (1964-1989)	Senior Assistant Librarian
Crouch, James E., Ph.D. (1932-1973)	Professor of Zoology
Cullen, F. Patricia, Ph.D. (1964-1985)	Professor of Physical Education
Darley, Richard D., Ph.D. (1961-1980)	Professor of Marketing
Davies, Darlene G., Ed.S. (1976-1994)	Assistant Professor of Communicative Disorders
Davis, Craig H., Ph.D. (1967-1991)	Assistant Professor of Biology
Deaton, Edmund I., Ph.D. (1960-1992)	Professor of Mathematical Sciences
DeLora, Jack R., Ph.D. (1955-1986)	Professor of Sociology
Denman, Mary Edel, M.A. (1966-1992)	Professor of Academic Skills
Dessel, Norman F., Ph.D. (1961-1992)	Professor of Natural Science
Dicken, Charles F., Ph.D. (1962-1995)	Professor of Psychology
Dickerson, Mary E., Ph.D. (1967-1990)	Assistant Professor of Family Studies and Consumer Sciences
Dickinson, Fidella R., Ph.D. (1966-1990)	Librarian
Dillon (Salerno), M. Constance, M.S. (1964-1992)	Professor of Nursing
Dirks, John H., M.F.A. (1947-1976)	Professor of Art
Dirksen, Dennis A., Ed.D. (1969-1992)	Professor of Industrial Technology
Dodds, Lowell J., M.B.A. (1957-1975)	Professor of Accounting
Dorris, Helen L., M.S. (1952-1982)	Professor of Family Studies and Consumer Sciences
Downing, Christine R., Ph.D. (1974-1992)	Professor of Religious Studies
Drobnies, Saul I., Ph.D. (1963-1994)	Professor of Mathematical Sciences
Dukas, Vytas, Ph.D. (1959-1988)	Professor of Russian
Dunkle, Harvey I., Ph.D. (1963-1987)	Associate Professor of German
Eagle, John, Ed.D. (1946-1974)	Professor of Mathematics
Earnest, Sue W., Ph.D. (1947-1973)	Professor of Speech Pathology and Audiology
Eidemiller, Donald I., Ph.D. (1956-1983)	Professor of Geography
Eisemann, Kurt, Ph.D. (1982-1992)	Professor of Mathematical Sciences
El-Assal, Mohamed M.E., Ph.D. (1967-1992)	Professor of Sociology
Elgin, Suzette, Ph.D. (1972-1981)	Associate Professor of Linguistics
Elliott, Rosalie C., Ph.D. (1968-1982)	Professor of Elementary Education
Erickson, Paul, Ed.D. (1963-1986)	Professor of Teacher Education
Erzen, Paul E., Ph.D. (1978-1987)	Associate Professor of Management, Imperial Valley Campus
Estes, Russell G., Ed.D. (1963-1992)	Professor of Music
Etheridge, Richard E., Ph.D. (1961-1992)	Professor of Biology

Farris, David A., Ph.D. (1960-1991)	Professor of Biology
Faulkner, D. George, M.S. (1983-1992)	Lecturer in Aerospace Engineering and Engineering Mechanics
Feierabend, Ivo K., Ph.D. (1959-1992)	Professor of Political Science
Fellers, Stanford, Ed.D. (1966-1979)	Associate Professor of Health Science and Safety
Ferrel, Dale B., M.B.A. (1957-1977)	Professor of Accounting
Fetzer, Leland A., Ph.D. (1966-1992)	Professor of Russian
Filner, Robert E., Ph.D. (1970-1992)	Associate Professor of History
Fisher, Horace H., Ph.D. (1955-1977)	Associate Professor of Finance
Fitz, Richard A., Ph.D. (1959-1991)	Professor of Mechanical Engineering
Flagg, Denis A., Ph.D. (1955-1986)	Professor of Economics
Forbing, Shirley E., Ed.D. (1969-1992)	Professor of Special Education
Ford, David H., Ed.D. (1967-1994)	Associate Professor of Teacher Education
Forman, Robert B., Ed.D. (1963-1985)	Professor of Music
Fountain, Leonard D., Ph.D. (1960-1990)	Professor of Mathematical Sciences
Fox, Kathleen, Ph.D. (1962-1986)	Professor of Physical Education
Franklin, Robert J., Ph.D. (1967-1988)	Associate Professor of History, Imperial Valley Campus
Frey, Leonard H., Ph.D. (1956-1989)	Professor of Linguistics
Frick, Fay A., Ph.D. (1970-1990)	Associate Professor of Art
Friedman, Abraham M., Ph.D. (1963-1983)	Associate Professor of Physical Education
Friedman, Maurice Stanley, Ph.D. (1973-1991)	Professor of Religious Studies, Philosophy, and Comparative Literature
Friedrich, Kurt, Ed.D. (1949-1977)	Professor of Secondary Education
Fulkerson, Glen E., Ed.D. (1954-1981)	Professor of Secondary Education
Galbraith, III, Oliver, Ph.D. (1955-1992)	Professor of Information and Decision Systems
Garrison, John D., Ph.D. (1956-1983)	Professor of Physics
Gast, David K., Ed.D. (1963-1991)	Professor of Teacher Education
Gastil, R. Gordon, Ph.D. (1959-1993)	Professor of Geological Sciences
Gates, Gerald F., Ed.D. (1955-1986)	Professor of Teacher Education
Geba, Bruno Hans, Ph.D. (1975-1992)	Professor of Recreation, Parks and Tourism
Geffer, Irving, Ph.D. (1970-1992)	Assistant Professor of Religious Studies
Gega, Peter C., Ed.D. (1955-1987)	Professor of Teacher Education
Genzlinger, Cleve K., M.M. (1957-1991)	Professor of Music
Ghilbert, Jeanne S., M.A. (1965-1982)	Assistant Professor of French
Gibson, E. Dana, Ph.D. (1947-1971)	Professor of Information Systems
Gifford, Adam, Ph.D. (1954-1989)	Professor of Economics
Gillette, Thomas L., Ph.D. (1961-1989)	Professor of Sociology
Gindler, Herbert A., Ph.D. (1960-1992)	Professor of Mathematical Sciences
Gjerde, Clayton M., Ph.D. (1948-1974)	Dean of Continuing Education, Professor of Secondary Education
Glasgow, Janis M., Ph.D. (1962-1994)	Professor of French
Goldkind, Victor, Ph.D. (1961-1992)	Professor of Anthropology
Goodson, Roger A., Ed.D. (1968-1988)	Professor of Teacher Education
Goodwin, Joann P., M.L.S. (1968-1991)	Senior Assistant Librarian
Granrud, Carolyn A., B.S.L.S. (1960-1987)	Senior Assistant Librarian
Grawunder, Ralph M., Ed.D. (1955-1991)	Professor of Physical Education
Gray, Robert T., Ed.D. (1956-1987)	Professor of Teacher Education
Greene, Joanne H., M.S.L.S., M.A. (1967-1986)	Catalog Librarian
Griffin, Herschel E., M.D. (1980-1987)	Professor of Public Health
Gripp, Richard C., Ph.D. (1958-1985)	Professor of Political Science
Groff, Patrick J., Ed.D. (1955-1981)	Professor of Elementary Education

Gross, George C., Ph.D. (1961-1985)	Professor of English and Comparative Literature
Grossberg, John M., Ph.D. (1962-1995)	Professor of Psychology
Guidry, Rosalind, Ph.D. (1970-1989)	Associate Professor of Social Work
Gulino, Claire, Ed.D. (1982-1991)	Professor of Nursing
Gunning, Barbara E., Ph.D. (1969-1988)	Professor of Family Studies and Consumer Sciences
Gutowski, Jr., Julius P., A.B. (1967-1991)	Assistant Professor of Physical Education
Hale, E. Alan, Ph.D. (1957-1987)	Professor of Marketing
Hammer, Gerald K., Ed.D. (1963-1992)	Professor of Industrial Technology
Hanchett, William F., Ph.D. (1956-1987)	Professor of History
Hanson, Robert F., Rec.D. (1962-1983)	Professor of Recreation
Harari, Herbert, Ph.D. (1966-1987)	Professor of Psychology
Harder, Donald F., Ed.D. (1960-1983)	Counselor, Counseling Services
Harmon, James E., Ph.D. (1964-1981)	Associate Professor of Political Science, Imperial Valley Campus
Harned, W. Wallace, Ph.D. (1962-1978)	Professor of Accounting
Harper, Leroy A., Ed.D. (1959-1979)	Professor of Health Science
Harris, Mary E., M.A.L.S. (1982-1992)	Associate Librarian
Harvey, A. Raymond, Ph.D. (1949-1983)	Professor of Mathematical Sciences
Haskell, Harriet, Ph.D. (1940-1971, except 1943-1945)	Professor of English
Hawley, Peggy J., Ph.D. (1968-1988)	Professor of Counselor Education
Haworth, Glenn O., D.S.W. (1966-1987)	Professor of Social Work
Hazen, William E., Ph.D. (1962-1988)	Professor of Biology
Heighton, Elizabeth J., M.S. (1966-1992)	Professor of Telecommunications and Film
Hellberg, Lars H., Ph.D. (1956-1992)	Professor of Chemistry
Herman, Elsie, M.A. (1969-1982)	Associate Professor of Social Work
Hewes, Dorothy W., Ph.D. (1974-1992)	Professor of Family Studies and Consumer Sciences
Higgins, Winifred H., Ph.D. (1964-1983)	Professor of Art
Hill, Wayne O., Ed.D. (1955-1983)	Professor of Elementary Education
Hillix, William A., Ph.D. (1963-1992, except 1967-1969)	Professor of Psychology
Hines, Jeanette D., D.N.S. (1977-1991)	Associate Professor of Nursing
Hippaka, William H., Jur.D. (1957-1990)	Professor of Finance
Ho, Hung-Ta, Ph.D. (1966-1991)	Professor of Mathematical Sciences
Hodge, Stanley B., M.A. (1968-1981)	Associate Professor of Art
Hogg, Merle E., Ph.D. (1962-1992)	Professor of Music
Holmes, Calvin V., Ph.D. (1956-1992)	Professor of Mathematical Sciences
Holowach, Frank S., M.A. (1960-1986)	Professor of Journalism
Holt, Howard B., Ed.D. (1961-1983)	Professor of Educational Administration
Hoover, Grace V., B.S.L.S. (1956-1981)	Associate Librarian
Hopkins, Jack R., M.F.A. (1961-1986)	Professor of Art
Hostettler, David K., Ed.D. (1966-1982)	Counselor
Howard, Gordon S., Ph.D. (1968-1983)	Professor of Drama
Howard, Raymond C., Ed.D. (1974-1989)	Associate Professor of Counselor Education
Howard, Roy J., Ph.D. (1963-1988)	Professor of Philosophy
Hoyt, Jack W., Ph.D. (1981-1992)	Professor of Mechanical Engineering
Huffman, Edward W., Ph.D. (1955-1980)	Professor of Zoology
Huls, Harry E., Ph.D. (1961-1983)	Professor of Elementary Education
Hungate, Robert P., Ph.D. (1961-1987, except 1965-1969)	Professor of Finance
Hunrichs, William A., Ph.D. (1957-1985)	Professor of Psychology
Hunter, Lawrence B., M.A. (1963-1989)	Professor of Art
Hurd, III, Lyman C., M.M. (1958-1979)	Professor of Music

Emeritus Faculty

Hutchinson, George, Ph.D. (1973-1994)	Associate Professor of Recreation, Parks and Tourism
Ingham, Muriel B., Ph.D. (1967-1981)	Professor of English
Inskeep, Jr., James E., Ph.D. (1980-1990)	Professor of Teacher Education
Irgang, Frank J., Ph.D. (1956-1982)	Professor of Industrial Studies
Isensee, Robert W., Ph.D. (1948-1982)	Professor of Chemistry
Ishikawa, Wesley H., D.S.W. (1969-1988)	Professor of Social Work
Jackson, Elizabeth R., Doctoral (1969-1986)	Professor of French
Janssen, Henry L., Ph.D. (1953-1988)	Professor of Political Science
Jencks, Clinton E., Ph.D. (1964-1986)	Professor of Economics
Jensen, Reilly C., Ph.D. (1958-1992)	Professor of Chemistry
Jiménez-Vera, Arturo, Ph.D. (1970-1992)	Professor of Spanish
Johns, Gerald E., M.S.L.S. (1967-1986)	Associate Librarian
Johnson, Albert W., Ph.D. (1964-1991)	Vice President for Academic Affairs, Professor of Biology
Johnson, C. Dale, Ph.D. (1963-1986)	Professor of Sociology
Johnson, Philip E., M.S.C.E. (1958-1987)	Professor of Civil Engineering
Jones, Jr., Kenneth K., M.A. (1948-1983)	Professor of Telecommunications and Film
Jones, Walter D., Ph.D. (1962-1991)	Professor of Chemistry
Jordan, Jr., G. Ray, Ph.D. (1966-1987)	Professor of Religious Studies
Joseph, Lionel, Ph.D. (1947-1971)	Professor of Chemistry
Joy, Ned V., Ph.D. (1953-1982)	Dean of the College, Professor of Political Science
Kaatz, James M., Ed.D. (1967-1992)	Associate Professor of Teacher Education
Kahn, Marion J., M.S. (1967-1983)	Professor of Social Work
Kahng, Tae Jin, Ph.D. (1962-1994)	Professor of Political Science
Karen, Robert L., Ph.D. (1964-1985)	Professor of Psychology
Kasch, Frederick W., Ed.D. (1948-1981)	Professor of Physical Education
Keen, Elmer A., Ph.D. (1967-1989)	Professor of Geography
Kelly, Beatrice L., Ph.D. (1967-1983)	Professor of Microbiology
Kendall, W. Lloyd, Ed.D. (1961-1992)	Professor of Teacher Education
Kern, J. Philip, Ph.D. (1968-1994)	Professor of Geological Sciences
Kessler, Lois P., M.A. (1969-1990)	Associate Professor of Health Science
Khaili, Issa J., Ph.D. (1969-1992)	Associate Professor of Religious Studies
Kiewiet De Jonge, Engbert J. C., Ph.D. (1963-1983)	Professor of Geography
King, Bonnie B., M.A. (1970-1984)	Assistant Professor of English, Imperial Valley Campus
Kinsey, Margaret E., M.A. (1961-1972)	Circulation Librarian
Kitchen, James D., Ph.D. (1957-1981)	Professor of Public Administration and Urban Studies
Kitzinger, Angela M., Ph.D. (1945-1969)	Professor of Health Science and Safety
Klann, Corinne F., M.A. (1962-1983)	Assistant Professor of Elementary Education
Klapp, Orrin E., Ph.D. (1948-1973)	Professor of Sociology
Kochanski, Adrian J., Ph.D. (1969-1983)	Professor of Public Administration and Urban Studies
Kohler, Richard C., Ph.D. (1969-1988)	Professor of English and Comparative Literature
Kopp, Harriet G., Ph.D. (1970-1983)	Professor of Communicative Disorders
Koppman, Jerry W., Ph.D. (1963-1987)	Professor of Psychology
Kozlik, Ludek A., Ph.D. (1965-1992)	Professor of Russian
Krummenacher, Daniel, Ph.D. (1968-1988)	Professor of Geological Sciences
Kukkonen, Ruth M., M.S.W. (1973-1989)	Professor of Social Work
Kummerow, Jochen, Ph.D., nat. (1973-1990)	Professor of Biology
Laiho, Ethel E., M.S. (1964-1982)	Associate Professor of Nursing

Emeritus Faculty

Lamb, Alma S., B.S. (1962-1988)	Assistant Librarian
Lambert, Arthur A., Ph.D. (1960-1983)	Professor of Music
LaMonica, Grace, M.S. (1966-1992)	Assistant Professor of Nursing
Landis, Jean, M.S. (1968-1979)	Assistant Professor of Physical Education
Langenbach, Robert G., Ed.D. (1959-1981)	Professor of Information Systems
LaPray, Margaret H., Ph.D. (1969-1977)	Professor of Elementary Education
Lawson, Richard H., Ph.D. (1957-1984, except 1976-1984)	Professor of German
Learned, Vincent R., Ph.D. (1968-1981)	Professor of Electrical and Computer Engineering
Leasure, J. William, Ph.D. (1962-1992)	Professor of Economics
Leckart, Bruce T., Ph.D. (1968-1993)	Professor of Psychology
Lee, Raymond, Ph.D. (1977-1992)	Associate Professor of Psychology
Lee, Robert E., M.A. (1956-1983)	Professor of Telecommunications and Film
Leerhoff, Ruth E., M.A. (1964-1991)	Librarian
Leiffer, Donald B., Ph.D. (1948-1971)	Professor of Public Administration and Urban Studies
Lemus, George, Ph.D. (1960-1991)	Professor of Spanish
Leslie, Norman C., M.N. (1969-1988)	Assistant Professor of Nursing
Lienert, Charles, Ed.D. (1954-1977)	Professor of Educational Administration
Lindgren, Donald A., Ph.D. (1965-1992)	Professor of Marketing
Lodge, Chester R., Ph.D. (1954-1988)	Professor of Electrical and Computer Engineering
Loomis, David M., M.M. (1961-1983)	Associate Professor of Music
Lovely, Louise P., M.A., M.L.S. (1979-1988)	Librarian, Imperial Valley Campus
LuPone, Orlando J., Ph.D. (1964-1974)	Professor of Elementary Education
Lybarger, Alvin E., Ed.D. (1970-1992)	Associate Professor of Mechanical Engineering
Lynn, Elizabeth, Ph.D. (1963-1988)	Associate Professor of Psychology
MacDonald, Gretchen, Ph.D. (1966-1981)	Associate Professor of Study Skills
Madsen, Roy P., Ph.D. (1966-1991)	Professor of Telecommunications and Film
Malcolm, David D., Ph.D. (1953-1983)	Professor of Counselor Education
Malik, Jim G., Ph.D. (1957-1992)	Professor of Chemistry
Manjos, Theima D., Ph.D. (1969-1975)	Professor of Counselor Education
Mann, Richard L., M.S.E.E. (1968-1982)	Professor of Electrical and Computer Engineering
Mansfield, Jr., George A., M.S.M.E., Professional Degree in Mechanical Engineering (1968-1994)	Professor of Mechanical Engineering
Marosz, Wanda A., M.A. (1967-1986)	Associate Professor of Mathematical Sciences
Marshak, Celia L., Ph.D. (1973-1993)	Assistant Dean for Student Affairs, College of Sciences
Marsters, Harold L., M.A. (1962-1992)	Associate Professor of Industrial Technology
Martin, Joan L., Ed.D. (1970-1992)	Professor of Family Studies and Consumer Sciences
Martin, Mary F., M.S. (1958-1980)	Assistant Professor of Family Studies and Consumer Sciences
Martinez, Julio A., Ph.D. (1973-1992)	Associate Librarian
Mathewson, James H., Ph.D. (1964-1992)	Professor of Chemistry
Max, Stefan L., Ph.D. (1964-1984)	Professor of French
Maxwell, Jean M., M.S.S. (1963-1978)	Professor of Social Work
McAdams, Henry E., Ph.D. (1966-1992)	Director, University Advising Center; Counselor
McAllister, R. Wayne, M.A. (1966-1983)	Assistant Professor of Educational Technology and Librarianship
McAmis, Lessley C., B.A. (1959-1971)	Documents Librarian
McBlair, William, Ph.D. (1948-1982)	Professor of Biology
McClard, Q. Donavon, Ph.D. (1966-1986)	Professor of Special Education

McClurg, Jack, Ph.D. (1962-1991)	Professor of Philosophy
McCoy, Leone D., Ph.D. (1967-1990)	Professor of Teacher Education
McDonald, Roy D., Ph.D. (1963-1992)	Professor of Psychology
McEwen, R. Harold, Ph.D. (1967-1992)	Associate Professor of Industrial Technology
McEuen, Robert B., Ph.D. (1969-1979)	Professor of Geological Sciences
McFall, John B., Ph.D. (1966-1985)	Professor of Marketing
McLean, Jr., Norman, Ph.D. (1965-1991)	Professor of Biology
McLoney, Wirt, Ed.D. (1949-1974)	Professor of Industrial Studies
McMullen, James D., Ed.D. (1958-1984)	Professor of Industrial Studies
McTaggart, Aubrey C., Ph.D. (1962-1992)	Professor of Health Science
Meek, Doris A., Ed.D. (1968-1981)	Professor of Secondary Education
Meier, Robert A., Ph.D. (1972-1986)	Professor of Accountancy
Merzbacher, Claude F., Ed.D. (1947-1978)	Professor of Natural Science
Milne, David S., Ph.D. (1946-1976)	Professor of Sociology
Milne, Thair S., M.A. (1968-1979)	Associate Professor of Family Studies and Consumer Sciences
Mitton, Daryl G., Ph.D. (1966-1991)	Professor of Management
Moe, Chesney R., Ph.D. (1931-1972)	Professor of Physics
Moe, Jean T., M.A. (1966-1983)	Associate Professor of Music
Monteverde, John P., Ph.D. (1954-1986)	Professor of English and Comparative Literature
Moore, Harold B., Ph.D. (1960-1991)	Professor of Biology
Morgan, Charles, M.S. (1949-1985)	Professor of Mechanical Engineering
Morris, Joyce, Ph.D. (1969-1990)	Associate Professor of Teacher Education
Mourafides, Nicos N., Ph.D. (1960-1992)	Professor of Sociology
Mracek, Jaroslav J.S., Ph.D. (1965-1991)	Professor of Music
Munter, Robert L., Ph.D. (1964-1991)	Professor of History
Murdock, Doris G., B.S.L.S. (1960-1972)	Catalog Librarian
Murphy, Monica A., Ph.D. (1969-1992)	Professor of Teacher Education
Neel, James W., Ph.D. (1963-1993)	Associate Dean, College of Sciences; Professor of Biology
Nelson, Burt, Ph.D. (1957-1988)	Director of the Mt. Laguna Observatory; Professor of Astronomy
Nelson, Hilda B., Ph.D. (1965-1988)	Professor of French
Nelson, Sherwood M., Ph.D. (1956-1982)	Professor of Philosophy
Neuman, Donald R., Ph.D. (1967-1991)	Counselor
Neumeyer, Peter F., Ph.D. (1978-1993)	Professor of English and Comparative Literature
Neuner, Jr., Edward J., Ph.D. (1957-1986)	Professor of Economics
Neyndorff, Hans, Doctorandus (1962-1983)	Senior Assistant Librarian
Nichols, Paul F., Ph.D. (1965-1992)	Professor of Physics
Norland, Calvert E., M.S. (1947-1976)	Professor of Zoology
Norman, Nelson F., Ph.D. (1960-1983)	Professor of History
Nower, Leon, Ph.D. (1963-1990)	Associate Professor of Mathematical Sciences
O'Brien, Bob R., Ph.D. (1966-1995)	Professor of Geography
O'Day, Edward F., Ph.D. (1957-1986)	Professor of Psychology
Odendahl, Eric M., Ph.D. (1964-1992)	Professor of Journalism
Oglesby, Allan C., M.D. (1984-1990)	Professor of Public Health
Olsen, Albert W., Ed.D. (1957-1983)	Professor of Physical Education
Olsen, Lyle I., Ed.D. (1961-1989)	Professor of Physical Education
Olson, Jr., Andrew C., Ph.D. (1946-1980)	Professor of Zoology
O'Neal, H. Edward, Ph.D. (1961-1994)	Professor of Chemistry
Ontell, Robert, D.S.W. (1965-1979)	Professor of Social Work

O'Reilly, Nathalia Crane, Special Study at Barnard College, University of Madrid, and Sorbonne (1958-1983)	Assistant Professor of English and Comparative Literature
O'Reilly, Peter, Ph.D. (1968-1983)	Professor of Philosophy
Padgett, L. Vincent, Ph.D. (1956-1992)	Professor of Political Science
Parsons, John A., Ph.D. (1965-1990)	Professor of Biology
Paulin, Harry W., Ph.D. (1962-1991)	Professor of German
Pease, William J., M.A., M.L.S. (1973-1992)	Librarian
Peisner, Earl F., Ed.D. (1961-1990)	Counselor; Professor of Counselor Education
Penn, Robert, Ph.D. (1960-1991)	Professor of Psychology
Perczel, Csilla F., Ph.D. (1970-1990)	Associate Professor of Art
Perkins, William A., Ph.D. (1955-1984)	Professor of English and Comparative Literature
Person, Gerald A., Ph.D. (1957-1981)	Professor of Secondary Education
Peterson, Donald W., Ph.D. (1974-1992)	Associate Professor of Recreation, Parks and Tourism
Phelps, Leroy N., Ph.D. (1966-1990)	Associate Professor of Biology
Phillips, Jr., William H., Ed.D. (1963-1991)	Professor of Physical Education
Pierson, Albert Chad, Ph.D. (1954-1983)	Professor of Management
Pincetti, Jr., Stanley J., Ph.D. (1955-1986)	Professor of History
Platz, Marvin H., Ed.D. (1955-1983)	Professor of Secondary Education
Plymale, Harry H., D.V.M. (1962-1991)	Associate Professor of Biology
Poroy, Ibrahim I., Ph.D. (1967-1987)	Professor of Economics
Posner, Walter H., M.A., M.A.L.S. (1962-1988)	Senior Assistant Librarian
Price, Q. Lee, Ph.D. (1966-1986)	Associate Professor of Family Studies and Consumer Sciences
Prouty, Helen L., Ph.D. (1950-1976)	Professor of Secondary Education
Psomas, Themistocles, Ph.D. (1952-1982)	Associate Professor of Psychology
Placek, Anton D., Ph.D. (1965-1992)	Associate Professor of Geological Sciences
Qulett, Fredrick T., M.S., J.D. (1957-1981)	Professor of Civil Engineering
Rader, Daniel L., Ph.D. (1954-1983)	Professor of History
Ramage, Jean C., Ph.D. (1975-1989)	Professor of Counselor Education
Rankin, Janna S., J.D. (1986-1994)	Professor of Recreation, Parks and Tourism
Rao, M. V. Rama, Ph.D. (1957-1982)	Professor of Mechanical Engineering
Rasmussen, Aaron P., Ph.D. (1971-1980)	Associate Professor of Industrial Studies
Ratty, Frank J., Ph.D. (1954-1984)	Professor of Biology
Raymer, Paul H., M.S.W. (Under contract 1969-70; 1970-1995)	Assistant Professor of Social Work
Redding, Mary Worden, Ph.D. (1967-1983)	Associate Professor of English and Comparative Literature
Redding, Robert W., Ph.D. (1966-1985)	Associate Professor of English and Comparative Literature
Reel, Jane E., Ph.D. (1958-1991)	Associate Professor of Teacher Education
Reichert, Kurt, Ph.D. (1970-1981)	Professor of Social Work
Reints, William W., Ph.D., (1966-1992)	Professor of Finance
Retson, James N., Ed.D. (1968-1992)	Professor of Teacher Education
Richardson, William H., Ph.D. (1963-1994)	Professor of Chemistry
Riedman, Richard M., Ph.D. (1962-1992)	Professor of Communicative Disorders
Riehman, Lynne, D.S.W. (1976-1986)	Associate Professor of Social Work
Riggs, Dorothy J., Ed.D. (1966-1986)	Professor of Teacher Education
Riggs, Lester G., Ph.D. (1950-1978, except 1951-1952)	Professor of Mathematical Sciences
Rinehart, Robert R., Ph.D. (1964-1994)	Professor of Biology
Rixman, Eunice E., D.M.A. (1960-1991)	Professor of Teacher Education
Robbins, Stephen P., Ph.D. (1979-1993)	Professor of Management

Emeritus Faculty

Roberts, Ellis E., Ph.D. (1949-1979)	Professor of Geological Sciences
Rodney, Joseph A., Ed.D. (1957-1976)	Dean, Imperial Valley Campus; Professor of Education
Rogers, Spencer L., Ph.D. (1930-1971)	Professor of Anthropology
Rohlfisch, Kramer, Ph.D. (1947-1974)	Professor of History
Rohlfisch, Marjorie C., M.A. (1966-1975)	Associate Professor of Music
Rollefson, Gary O., Ph.D. (1984-1992)	Professor of Anthropology
Romano, Albert, Ph.D. (1963-1990)	Professor of Mathematical Sciences
Rosenbaum, Gerald, Ph.D. (1989-1994)	Professor of Psychology
Ross, Ramon R., Ed.D. (1961-1992)	Professor of Teacher Education
Rost, Norman, M.M. (1951-1977)	Professor of Music
Roth (Longenecker), Martha, M.F.A. (1955-1981)	Professor of Art
Rowe, Robert D., Ph.D. (1946-1971)	Professor of Chemistry
Rowland, Monroe K., Ph.D. (1960-1992)	Professor of Teacher Education
Ruetten, Richard T., Ph.D. (1960-1991)	Professor of History
Ruja, Harry, Ph.D. (1947-1979)	Professor of Philosophy
Sandelin, Mary Lee, M.L.S. (1968-1983)	Senior Assistant Librarian
Sanderlin, George W., Ph.D. (1954-1983)	Professor of English and Comparative Literature
Sanders, Frederick C., Ph.D. (1967-1981)	Associate Professor of Speech Communication
Sandlin, Joann S., Ph.D. (1967-1994)	Professor of Sociology
Sandstrom, Glenn A., Ph.D. (1956-1983)	Professor of English and Comparative Literature
Sanner, Richard L., Ed.D. (1965-1981)	Media Specialist
Santaló, Joaquín, Ph.D. (1968-1989)	Associate Professor of Spanish
Santangelo, Gennaro A., Ph.D. (1967-1992)	Professor of English and Comparative Literature
Sardinas, Maria A., M.T., M.S.W. (1968-1989)	Associate Professor of Social Work
Sattler, Jerome M., Ph.D. (1965-1994)	Professor of Psychology
Schalles, Frances I., A.B. (1950-1968)	Education and Curriculum Materials Librarian
Schapiro, Harriette C., Ph.D. (1966-1990)	Professor of Biology
Schatz, Arthur W., Ph.D. (1963-1992)	Assistant Dean, Graduate Division and Research; Professor of History
Schmidt, Mary Gwynne, Ph.D. (1978-1991)	Professor of Social Work
Schmier, Walter D., J.D. (1967-1975)	Associate Professor of Business Law
Schwob, Marion L., M.S. (1934-1960)	Associate Professor of Physical Education
Sebold, Frederick D., Ph.D. (1969-1987)	Professor of Economics
Segal, Evalyn F., Ph.D. (1973-1983)	Professor of Psychology
Sender, Florence H., M.A. (1964-1973)	Associate Professor of Spanish
Settle, Robert B., Ph.D. (1972-1988)	Professor of Marketing
Shepard, David C., Ph.D. (1956-1991)	Professor of Biology
Shields, Allan E., Ph.D. (1949-1977, except 1969-1970)	Professor of Philosophy
Shira, Jr., Donald W., M.A.L.S. (1958-1986)	Senior Assistant Librarian
Shull, Jr., Charles M., Ph.D. (1969-1983)	Professor of Natural Science
Shutts, William H., Ph.D. (1958-1977)	Professor of Aerospace Engineering
Singer, Jr., Arthur, Ph.D. (1959-1983)	Professor of Special Education
Skaar, Donald L., M.S. (1960-1981)	Professor of Electrical and Computer Engineering
Sloan, William C., Ph.D. (1961-1990)	Professor of Biology
Smith, Alan C., Ed.D. (1963-1989)	Professor of Education, Imperial Valley Campus
Smith, Jr., Charles D., Ph.D. (1967-1992)	Professor of History
Smith, Deane F., M.Mus. (1939-1970)	Associate Professor of Music

Smith, John R., Ph.D. (1957-1986)..... Associate Professor of Psychology
 Smith, Jr., Louis E., Ph.D. (1946-1979)..... Professor of Physics
 Smith, Newton B., Ph.D. (1954-1986)..... Professor of Mathematical Sciences
 Smith, Jr., Robert D., Ph.D. (1963-1994)..... Professor of Teacher Education
 Snider, Mervin S., M.A. (1953-1983)..... Professor of Music
 Snudden, Leslie W., D.B.A. (1959-1987)..... Professor of Accountancy
 Snyder, William S., Ph.D. (1960-1990)..... Professor of Philosophy
 Somerville, Rose M., Ed.D. (1967-1977)..... Professor of Family Studies and Consumer Sciences and Sociology
 Sonntag, Iliana L., M.L.S., M.A. (1980-1991)..... Librarian
 Sorensen, George W., Ph.D. (1967-1986)..... Professor of Journalism and Sociology
 Sorenson, George N., M.A. (1946-1976)..... Professor of Art
 Sorochan, Walter D., H.S.D. (1969-1991)..... Professor of Health Science
 Spangler, John A., Ph.D. (1946-1981)..... Professor of Chemistry
 Spaulding, Jr., William E., Ph.D. (1970-1985)..... Professor of Information Systems
 Spencer, Marjorie J., M.A. (1969-1978)..... Associate Professor of Art, Imperial Valley Campus
 Sportsman, Charles C., M.S. (1947-1968)..... Associate Professor of Physical Education
 Srbich, Alexander L., Ph.D. (1959-1983)..... Professor of Management
 Stautland, Sigurd, Ph.D. (1966-1991)..... Professor of Teacher Education
 Steckbauer, Mark J., Ed.D. (1967-1992)..... Professor of Teacher Education
 Steen, Paul J., M.A. (1970-1992)..... Professor of Telecommunications and Film; Director of University Telecommunications
 Stephenson, Clarence E., Ph.D. (1963-1991)..... Professor of Drama
 Stephenson, III, John S., Ph.D. (1969-1986)..... Professor of Sociology
 Stevens, Larry P., Ed.D. (1986-1991)..... Assistant Professor of Administration, Rehabilitation and Postsecondary Education
 Stevens, Walter R., Ph.D. (1956-1990)..... Professor of Psychology
 Stewart, Charles J., Ph.D. (1955-1992)..... Professor of Chemistry
 Stiehl, Harry C., Ph.D. (1969-1992)..... Professor of English
 Stone, Hamilton L., B.S. (1947-1971)..... Associate Professor of Mechanical Engineering
 Stone, Sanford H., M.S.E., M.S. (1956-1990)..... Professor of Civil Engineering
 Storm, Alvena S., M.A. (1926-1966)..... Professor of Geography
 Stough, Morrow F., Ph.D. (1950-1976, except 1966-1971)..... Professor of Education
 Stout, Zoe E., Ph.D. (1965-1977)..... Associate Professor of Family Studies and Consumer Sciences
 Strand, Marguerite R., Ph.D. (1955-1977)..... Counselor, Professor of Secondary Education
 Straub, Lura Lynn, M.C.S. (1948-1978)..... Professor of Information Systems
 Strong, Douglas H., Ph.D. (1964-1990)..... Professor of History
 Stuart, Robert J., Ph.D. (1969-1987)..... Professor of Electrical and Computer Engineering
 Sullivan, Edward D. S., Ph.D. (1967-1983)..... Assistant Professor of English and Comparative Literature
 Szabo, Andrew, Ph.D. (1955-1978)..... Collection Development Librarian
 Talamantes, Florence W., Ph.D. (1962-1992)..... Associate Professor of Spanish
 Tanzer, JoAnn L., Ed.D. (1956-1986)..... Professor of Art
 Taylor, Jr., Hawley C., Ph.D. (1964-1990)..... Associate Professor of English and Comparative Literature
 Taylor, James W., Ph.D. (1950-1980)..... Professor of Geography
 Taylor, Kenneth M., Ph.D. (1949-1978)..... Professor of Biology
 Teasdale, John G., Ph.D. (1956-1982)..... Professor of Physics
 Thiel, Donald W., Ph.D. (1957-1986)..... Professor of Industrial Studies
 Thomas, Beatrice A., M.A. (1954-1977)..... Professor of Nursing

Thompson, Willis H., M.A. (1967-1991)..... Assistant Professor of Natural Science
 Threet, Richard L., Ph.D. (1961-1981)..... Professor of Geological Sciences
 Tollefsen, Dorothy J., M.A. (1946-1972)..... Professor of Physical Education
 Tossas, Leila de Irizarry, Ed.D. (1961-1977)..... Professor of Elementary Education
 Tozer, Lowell, Ph.D. (1954-1986)..... Professor of English and Comparative Literature
 Trimmer, Russell L., Ph.D. (1955-1976)..... Professor of Special Education
 Turner, Marjorie S., Ph.D. (1954-1977)..... Professor of Economics
 Turner, Merle B., Ph.D. (1950-1974)..... Professor of Psychology
 Vanderbilt, Kermit, Ph.D. (1962-1988)..... Professor of English and Comparative Literature
 Vanderwood, Paul J., Ph.D. (1969-1994)..... Professor of History
 Van de Wetering, R. Lee, Ph.D. (1960-1992)..... Professor of Mathematical Sciences
 Van Steenberg, James F., Ph.D. (1970-1993)..... Professor of Biology
 Varela-Ibarra, José L., Ph.D. (1976-1991)..... Associate Professor of Spanish, Imperial Valley Campus
 Verderber, Anne, Ph.D. (1971-1992)..... Associate Professor of Nursing
 Vergani, GianAngelo, Dottorato in Lettere (1963-1992)..... Professor of Italian
 Vergani, Luisa M., Dottorato in Lettere (1969-1983)..... Professor of Italian
 Wadsworth, Jr., Earl P., Ph.D. (1956-1990)..... Professor of Chemistry
 Walba, Harold, Ph.D. (1949-1986)..... Professor of Chemistry
 Walch, Jr., Henry A., Ph.D. (1955-1985)..... Professor of Biology
 Wallace, Robert D., Litt. D. (1957-1986)..... Professor of Art
 Warburton, John T., Ed.D. (1968-1982)..... Associate Professor of Educational Administration
 Warren, Edward W., Ph.D. (1963-1990)..... Professor of Philosophy and Classics
 Warren, Leroy J., Ph.D. (1955-1988)..... Professor of Mathematical Sciences
 Watson, Lawrence C., Ph.D. (1967-1992)..... Professor of Anthropology
 Webb, Charles R., Ph.D. (1949-1972, except 1965)..... Professor of History
 Wedberg, Hale L., Ph.D. (1959-1983)..... Professor of Botany
 Weeter, Raymond D., Ph.D. (1966-1991)..... Associate Professor of Spanish
 Weir, Mary Jane, Ph.D. (1970-1982)..... Assistant Professor of Educational Technology and Librarianship
 Weissman, Stanley N., Ph.D. (1962-1991)..... Professor of Philosophy
 Wells, Richard W., M.A. (1961-1994)..... Associate Professor of Physical Education
 Wendling, Aubrey, Ph.D. (1954-1982)..... Professor of Sociology
 West, John J., M.S. (1969-1989)..... Senior Assistant Librarian
 Wetherill, William H., Ph.D. (1957-1982)..... Professor of Educational Administration
 Whitney, Frederick C., Ph.D. (1970-1979)..... Associate Professor of Journalism
 Widmer, Kingsley, Ph.D. (1956-1991)..... Professor of English and Comparative Literature
 Wilding, John H., Ed.D. (1960-1986)..... Professor of Teacher Education
 Wilhelm, Betty Jane, M.A. (1961-1980)..... Assistant Professor of Physical Education
 Willerding, Margaret F., Ph.D. (1956-1976)..... Professor of Mathematics
 Williamson, Gloria R., M.A. (1961-1979)..... Associate Professor of Physical Education
 Wilson, Donald G., Ph.D. (1982-1992)..... Lecturer in Electrical and Computer Engineering
 Wilson, Galen, D.M.A. (1969-1989)..... Professor of Music, Imperial Valley Campus
 Wilson, Wilfred J., Ph.D. (1963-1992)..... Professor of Biology
 Wimer, Arthur C., M.A. (1950-1971)..... Professor of Journalism
 Witherspoon, John P., M.A. (1979-1992)..... Professor of Telecommunications and Film
 Wolter, Gerhard, M.S. (1957-1975)..... Professor of Physics
 Wulbern, Julian H., Ph.D. (1966-1993)..... Professor of German
 Wylie, Donald G., Ph.D. (1966-1992)..... Professor of Telecommunications and Film
 Yahr, Charles C., Ph.D. (1955-1988)..... Professor of Geography
 Yesselman, Charlotte B., Ph.D. (1967-1988)..... Professor of Teacher Education
 Ziegenfuss, George, Ed.D. (1948-1980)..... Professor of Physical Education

ARTS AND LETTERS

Abbott, Donald R., Ph.D., History
 Aboud, Judith Anne, M.A., Political Science
 Arguello, Miguel T., Ph.D., History
 Barnard, Ian, Ph.D., English; Rhetoric and Writing Studies
 Beasley, Edward J., Ph.D., History
 Bergstrom, Jr., George W., Ph.D., Political Science
 Boni, Pat, Ph.D., Religious Studies
 Brown, Jayne R., M.F.A., Rhetoric and Writing Studies
 Brown, Nancy, M.A., Political Science
 Bush, Donald W., B.S., B.A., Rhetoric and Writing Studies
 Butler, Evelyn A., Ph.D., English
 Butler, Maria G., M.A., Mexican American Studies
 Butler, Raymond J., M.A., Economics
 Butler, Renate F., Ph.D., German
 Cassell, Carol Ann, M.A., Rhetoric and Writing Studies
 Chamberlain, Charles T., Ph.D., Classics
 Christenson, Lynne E., Ph.D., Anthropology
 Christianson, John A., Ph.D., Economics
 Chu, Andrea Wong, M.A., Linguistics
 Clanton, Gordon, Ph.D., Sociology
 Clarke, Janet T., M.A., Anthropology
 Conway, Fred J., Ph.D., Anthropology
 Crane, Peggy F., M.S., Economics
 Crawford, Kathleen A., M.A., History
 Deegan, Joseph A., Ph.D., Religious Studies
 Del Castillo Vera, Gustavo, Ph.D., Arts and Letters, General
 Dudley, Cynthia L., M.A., Rhetoric and Writing Studies
 Eaton, Gerald G., Ph.D., Sociology
 Emery, Laura C., Ph.D., Rhetoric and Writing Studies
 Finn, Richard D., M.A., English
 Fish, Hedda A., M.A., Rhetoric and Writing Studies
 Gage, John T., Ph.D., Rhetoric and Writing Studies
 Gaskill, William H., Ph.D., Linguistics
 Ghosh, Huma A., Ph.D., Anthropology; History
 Giles, Sharon L., M.A., Rhetoric and Writing Studies
 Gillman, John L., Ph.D., Religious Studies
 Grajeda-Higley, Leilani, M.A., Mexican American Studies; Rhetoric and Writing Studies
 Granger, John F., Ph.D., English
 Greene, Myron, M.A., History
 Guthrie, Wayne L., Ph.D., History
 Harriott, Richard B., Ph.D., Economics
 Hay, Jeffrey T., Ph.D., History
 Hollis, Karen A., Ph.D., English
 Hudson, Jr., Wesley L., Ph.D., Linguistics
 Ingram, III, James W., M.A., Political Science
 Jaffe, Maggie S., M.A., English
 Jaramillo, Ricardo M., Ph.D., History
 Jespersen, Josette P., M.A., French
 Joyce, Barry A., M.A., History
 Kappel, Lawrence, Ph.D., English
 Kahrenberg, Graziella Spinelli, D.L., French
 Kelly, Mary L., Ph.D., Religious Studies; Women's Studies
 Kleiber, Nancy L., Ph.D., Anthropology; Women's Studies

Part-Time Faculty 1994-1995

Kuhlken, Kenneth W., M.F.A., English
 Kulkarni, Vijayalakshmi C., Ph.D., Economics
 Laing, Annette S., M.A., History
 Lide, Thomas A., M.A., History
 Lowrey, Ying Liu, Ph.D., Economics
 Mack, James B., Ph.D., English; Rhetoric and Writing Studies
 Mackey, Linda C., J.D., Women's Studies
 Mahdavi-Izadi, Farid, M.A., History
 Martinez, Alexander D., M.A., Mexican American Studies
 McKanna, Jr., Clare V., Ph.D., History
 McNulty, Mark A., M.A., Economics
 Mestas, Hector S., M.A., Mexican American Studies
 Miller, Elise, M.A., Rhetoric and Writing Studies
 Moore, Jeanie G., Ph.D., English
 Mueller, Howard R., Ph.D., Religious Studies
 Nunez, Rene, Ph.D., Mexican American Studies
 Okuma, Laurie A., M.F.A., English; Rhetoric and Writing Studies
 Palmer, Mona G., M.A., Classics and Humanities
 Peterson, Ann E., M.A., English
 Phillips, Ashley E., M.A., Women's Studies
 Putko, Carole A., M.A., M.A.T., History
 Quan, Nghiep C., M.A., Rhetoric and Writing Studies
 Quinn, Ronald J., Ph.D., History
 Reed, William R., M.A., Rhetoric and Writing Studies
 Renner, Lynette E., M.A., Rhetoric and Writing Studies
 Richardson, Diana G., M.A., Geography
 Robinetti, E. Jane, Ph.D., English
 Rockland, Steven G., M.A., M.S., Economics
 Rowden, Tonita H., M.A., English
 Russ, III, John E., M.B.A., Economics
 Schelhorse, Larry D., Ph.D., Economics
 Schwartz, Rosalie, Ph.D., History
 Seaton, Errol R., Ph.D., English
 Shabatay, Yehuda, Ph.D., English
 Shahrokhi, Shahrokh, Ph.D., Economics
 Shaver, Barbara M., Ph.D., Women's Studies
 Shavit, Samy S., Ph.D., Religious Studies
 Shenoy, Vasanthi, Ph.D., History
 Sherline, Phyllis, M.A., Rhetoric and Writing Studies
 Shumaker, Jeanette R., Ph.D., English
 Smith, Lawrence G., M.A., Economics
 Smith, Wendy L., M.A., Rhetoric and Writing Studies
 Sperling, Samuel M., Ph.D., Economics
 Spirito, Donald P., M.A., Economics
 Sposito, Frank A., M.A., Political Science
 Spring, Carl L., Ph.D., Linguistics
 Stagnaro, Roberta J., M.A., English; Rhetoric and Writing Studies
 Stoddard, Michael Mathis, Ph.D., Political Science
 Sullivan, Julie A., M.A., Political Science
 Swun, Yvonne A.Y., M.B.A., Arts and Letters, General
 Thomas, Jesse J., Ph.D., Religious Studies
 Thomas, Marie D., Ph.D., Women's Studies
 Tomlinson-Rustick, Margaret A., M.A., Rhetoric and Writing Studies
 Tsimhoni, Daphne, Ph.D., History

Tyzzar, III, Robert N., Ph.D., Anthropology
 Valverde, Miguel A., B.A., Arts and Letters, General
 Velasco, Alfredo F., Ph.D., Mexican American Studies
 Villafior, Georgia C., M.S., Economics
 Walmsley, Janet M.C., M.A., History
 Wang, Boqing, Ph.D., Economics
 Watts, Doris R., M.A., Rhetoric and Writing Studies
 Wawrytko, Sandra A., Ph.D., History
 Weeks, Jr., William E., Ph.D., History
 Williams, Mary E., M.F.A., English
 Wittenborn, Allen, Ph.D., History
 Yee, Marian G., Ph.D., English
 Ysursa, John M., M.A., History

BUSINESS ADMINISTRATION

Branca, Melanie R., Ph.D., Information and Decision Systems
 Bredestege, Joseph J., M.B.A., Finance
 Broderick, Paul M., M.B.A., Management
 Coleman, Simon F., J.D., Management
 Dalbey, Richard O., Ph.D., Information and Decision Systems
 Deutsch, Reena, M.S., M.B.A., Information and Decision Systems
 Drost, Ellen A., M.B.A., Management
 Dudley, Cynthia L., M.A., Information and Decision Systems
 English, Richard J., M.S., Marketing
 Glazer, Jeffrey W., Ed.D., Management
 Griffith, Peter W., B.S., Finance
 Harrington, Don L., J.D., Finance
 Hernandez, Edward H., B.A., Management
 Hittle, Linda C., Ph.D., Finance
 Israel, Robert D., M.Div., Management
 Jaques, Kathryn M., B.A., Accountancy
 Kircher, Ruth K., M.B.A., Management
 Klinker, Henry J., L.L.B., Finance
 Litvack, David S., Ph.D., Marketing
 Meyers, Veronica J., M.S., Management
 Olson, James E., M.B.A., Finance
 Olson, Lois Bitner, D.B.A., Marketing
 Rohy, Louise P., M.B.A., Management
 Sannwald, William W., M.B.A., Marketing
 Shaw, Edward A., Ph.D., Management
 Williams, Jr., Richard K., Ph.D., Management
 Zumbeke, Catherine L., M.B.A., Management

EDUCATION

Alfaro, Jr., Antonio, M.S., Policy Studies in Language and Cross-Cultural Education
 Allen, Tim, M.A., Policy Studies in Language and Cross-Cultural Education
 Andara, Margo C., M.A., Policy Studies in Language and Cross-Cultural Education
 Annicharico, Joseph R., Ph.D., Special Education
 Babby, Barbara M., B.A., Teacher Education
 Beck, Jr., George Donald, M.S., Educational Technology
 Bee, Mary, M.A., Teacher Education
 Benson, Christine A., M.S., Teacher Education
 Bjornson, Patricia J., M.A., Teacher Education
 Bober, Marcie J., M.A., Educational Technology
 Boucher, Barbara O., M.A., Teacher Education
 Browne, John R., Ph.D., Administration, Rehabilitation and Postsecondary Education
 Brucker, Eugene F., M.A., Administration, Rehabilitation and Postsecondary Education
 Burgess, Denise A., M.A., Policy Studies in Language and Cross-Cultural Education
 Burnside, Patricia M., M.A., Teacher Education
 Caspi, Leslie A., Ed.D., Teacher Education
 Cheketchsha, Malkeia C., M.S., Counseling and School Psychology
 Collins, Tamara M., M.A., Policy Studies in Language and Cross-Cultural Education
 Coover, Kris W., M.A., Special Education; Teacher Education

Curiel, Marco A., M.A., Policy Studies in Language and Cross-Cultural Education
 Diaz, Helen E., B.A., Policy Studies in Language and Cross-Cultural Education
 Doyle, Dennis M., Ph.D., Policy Studies in Language and Cross-Cultural Education
 Dunbar, Louise H., Ed.D., Teacher Education
 Dyer, Christina L., J.D., Administration, Rehabilitation and Postsecondary Education
 Eby, Judy W., Ph.D., Teacher Education
 Eckols, Steven L., M.A., Educational Technology
 Fitch, Suzanne, Ed.D., Special Education
 Flood, Sharon R., Ed.D., Teacher Education
 Galea'i, Kenneth E., Ph.D., Administration, Rehabilitation and Postsecondary Education
 Gee, David, M.A., Teacher Education
 Greening, Paula L., M.A., Policy Studies in Language and Cross-Cultural Education
 Gunst, Rosemary, B.S., Teacher Education
 Gwinnup, Judith A., M.A., Special Education
 Hall, Robert B., Ph.D., Administration, Rehabilitation and Postsecondary Education
 Haney, Jarleen, M.S., Teacher Education
 Heffernan, Richard N., Ph.D., Special Education
 Hicks, Tom, Ph.D., Counseling and School Psychology
 Hider, Jacqueline J., M.A., Teacher Education
 Holowach, Kathleen E., M.S., Special Education; Teacher Education
 Hopper, Mary R., M.A., Administration, Rehabilitation and Postsecondary Education
 Hurtado, Juan, Ph.D., Policy Studies in Language and Cross-Cultural Education
 Jarosz, Eva J., M.Ed., Counseling and School Psychology
 Jones, Edward C., M.S., Administration, Rehabilitation and Postsecondary Education
 Kane, Katharine A., M.A., Teacher Education
 Kasendorf, Stacey J., M.A., Special Education
 Kelso, Brady P., M.A., Teacher Education
 Kick, Brian, M.A., Teacher Education
 Kramer, Ruth H., M.A., Special Education
 Logsdon, John W., M.A., Teacher Education
 March, Thomas A., M.A., Educational Technology
 Marr, Candace, Ed.D., Teacher Education
 Mathews, Diane M., M.Ed., Special Education
 McClure, Melinda K., M.A., Special Education
 McGuigan, Esperanza S., M.A., Policy Studies in Language and Cross-Cultural Education
 Meerson, Mary Lou J., M.A., Teacher Education
 Mendoza, Clifford, M.A., Teacher Education
 Messina, Constance, M.S., Counseling and School Psychology
 Morgan, Satnik J., B.A., Policy Studies in Language and Cross-Cultural Education
 Moriarty, Gail E., M.A., Special Education; Teacher Education
 Moses, Gloria J., M.A., Teacher Education
 Munoz, George, M.A., Educational Technology
 Myerson, Gary W., M.A., Special Education; Teacher Education
 Nunez, Rene, Ph.D., Policy Studies in Language and Cross-Cultural Education; Teacher Education
 Patterson, Gail, M.A., Special Education
 Perkowski, Sharon M., M.S., Counseling and School Psychology
 Perloth, Phyllis M., M.Ed., Special Education
 Peterson, Diana S., M.S., Administration, Rehabilitation and Postsecondary Education; Counseling and School Psychology
 Pitard, Peter E., M.Ed., Teacher Education
 Porter, Temile, Ph.D., Counseling and School Psychology
 Preciado, Maria G., M.A., Policy Studies in Language and Cross-Cultural Education
 Prime, Carol S., M.A., Teacher Education
 Ramirez, Celia A., M.A., Policy Studies in Language and Cross-Cultural Education
 Ray, Diana L., M.S., Policy Studies in Language and Cross-Cultural Education
 Richman, Carol L., M.A., Teacher Education
 Rider, Diane K., M.A., Policy Studies in Language and Cross-Cultural Education
 Roach, Anne-Marie, M.A., Teacher Education
 Robles-Santillana, Sarita L., M.A., Policy Studies in Language and Cross-Cultural Education
 Sage, Maureen E., Ed.D., Teacher Education
 Sax, Caren L., M.A., Special Education
 Sherr, Leonard, Ph.D., Administration, Rehabilitation and Postsecondary Education
 Siegfried, Thomas L., M.S., Administration, Rehabilitation and Postsecondary Education

Smith, Craig R., Ph.D., Counseling and School Psychology
 Sousa, Mary Ellen, M.Ed., Special Education
 Stein, Robert, Ph.D., Special Education
 Taylor, Linda C., M.A., Policy Studies in Language and Cross-Cultural Education; Teacher Education
 Thrope, Lynn, Ph.D., Teacher Education
 Torres-Stanovik, Maida, Ph.D., Policy Studies in Language and Cross-Cultural Education
 Traupmann, Kenneth L., Ph.D., Special Education
 Treger, Rochelle D., Ph.D., Teacher Education
 Turner, Christine A., M.S.W., Counseling and School Psychology
 Vigil, Dale W., Ed.D., Administration, Rehabilitation and Postsecondary Education
 Williams, Francine F., Ph.D., Policy Studies in Language and Cross-Cultural Education
 Wood, Ann L., Ph.D., Teacher Education

ENGINEERING

Bakhru, Keshoolal, Ph.D., Electrical and Computer Engineering
 Berger, Vera, Ph.D., Civil and Environmental Engineering
 Beyene, Asfaw, Ph.D., Mechanical Engineering
 Bologna, Baldassare A., M.S.E.E., Mechanical Engineering
 Callaway, Peggy Anne, M.A., Mechanical Engineering
 Cox, Malvin M., B.S., Electrical and Computer Engineering
 Dhingra, Kailash C., Ph.D., Electrical and Computer Engineering
 Eckert, Matthew W., Ph.D., Civil and Environmental Engineering
 Furry, Robert G., M.S., Civil and Environmental Engineering
 Jekel, Richard N., M.S.E.E., Electrical and Computer Engineering
 McDonnell, John R., B.S., Mechanical Engineering
 McElmury, Scott S., Ph.D., Civil and Environmental Engineering
 Mohsenzadeh, Morteza, M.S., Mechanical Engineering
 O'Leary, Mark J., B.S.E.E., Electrical and Computer Engineering
 Phillips, David B., M.S.E.E., Electrical and Computer Engineering
 Sadeghi, Reza S., M.S., Mechanical Engineering
 Slump, Cary J., M.Arch., Civil and Environmental Engineering
 Terry, Ann H., M.S., Civil and Environmental Engineering
 Vettel, Joseph J., M.S., Civil and Environmental Engineering
 Winkler, Clive, Ph.D., Electrical and Computer Engineering

HEALTH AND HUMAN SERVICES

Anderson, Mark C., M.P.H., Public Health
 Bidwell, Janice D., M.N., Nursing
 Branch, Carol A., M.A., Communicative Disorders
 Carrillo, Terry E., Ph.D., Social Work
 Colwell, Carolyn B., M.A., Nursing
 Cone, Janice W., Ph.D., Social Work
 Conway, Terry L., Ph.D., Public Health
 DuBois, Barbara C., Ph.D., Health and Human Services, General
 Elliott, Carolyn P., M.S.N., Nursing
 Engelberg, Moshe, Ph.D., Public Health
 Fischer, Marlowe K., M.A., Communicative Disorders
 Golden, Kenneth M., Ed.D., Social Work
 Golden, Lauren J., M.S.W., Social Work
 Good, Linda S., M.S.N., Nursing
 Hobbs, Lola J., M.S.W., Social Work
 James, Kathy S., D.N.Sc., Nursing
 Katzman, Jodi S., M.S.N., Nursing
 Keith, Elizabeth A., M.S.W., Social Work
 Lawson, Carolyn M., M.S.N., Nursing
 Lund, Max R., Ph.D., Public Health
 Martinez, Rita T., M.A., Communicative Disorders
 Miller, Mary Ellen, M.S.N., Nursing
 Milstein, Marjorie F., M.S.W., Social Work
 Packard, Thomas R., D.S.W., Social Work
 Ross, Robert K., M.D., Public Health
 Ruptier, Norma M., M.S.N., Nursing
 Saks, Nancy P., D.N.Sc., Nursing
 Sanborn, Beverly J., M.S.W., Social Work
 Scheinberg, Judith C., Ph.D., Communicative Disorders
 Schmidt, Terry L., M.B.A., Public Health
 Segars, Lance B., Ph.D., Social Work
 Shuman, Tarek M., Ph.D., Health and Human Services, General; Social Work
 Sinkovec, Judith B., M.S.W., Social Work
 Sproul, Annette, M.S.W., Social Work
 Thedell, Terry D., Ph.D., Public Health

PROFESSIONAL STUDIES AND FINE ARTS

Adams, Timothy B., M.A., Art
 Albert, Cliff E., B.S., Communication
 Anhorn, Larry M., B.S., Exercise and Nutritional Sciences
 Apostolos, Jr., Robert J., M.S., Public Administration
 Asebedo, Anna Maria, M.F.A., Art
 Aufesser, Kathryn S., M.A., Exercise and Nutritional Sciences
 Barkett, Ronald S., M.A., Public Administration
 Beck, Andrea P., M.S., Recreation, Parks and Tourism
 Behana, Elinor E., M.S., Child and Family Development
 Bishop, Andrew Ranji, M.A., Recreation, Parks and Tourism
 Bouton, Steven R., B.A., Public Administration
 Brown, James R., B.A., Recreation, Parks and Tourism
 Burke, James P., M.A., Exercise and Nutritional Sciences
 Burns, Larry A., J.D., Public Administration
 Carveny, James E., M.A., Exercise and Nutritional Sciences
 Cleary, John J., J.D., Public Administration
 Dillard, Linda K., B.A., Exercise and Nutritional Sciences
 Duehring, Laura J., Ed.D., Exercise and Nutritional Sciences
 Dustin, Daniel L., Ph.D., Recreation, Parks and Tourism
 Eaton, Robert, M.F.A., Music
 Edmiston, LaBelle L., B.S., Dance
 Elliott, Lynn Hope, M.S., Recreation, Parks and Tourism
 Estrada, Steven, B.S., Public Administration
 Feldman, David A., M.S., Communication
 Fetherling, Dale S., M.S.J., Communication
 Flood, John C., M.A., Music
 Fobes, David A., M.F.A., Art
 Francis, Lloyd G., B.A., Exercise and Nutritional Sciences
 Francis, Lorna L., Ph.D., Exercise and Nutritional Sciences
 Freedman, Jonathan B., B.A., Communication
 Freiberg, Jacquelyn A., Ed.D., Communication
 Funicello, Ralph, B.F.A., Drama
 Gillette, Glenn A., B.F.A., Music
 Goss, John D., M.P.A., Public Administration
 Gray, III, John S., B.S., Communication
 Grebl, James W., M.A., Art
 Greenfield, Debra Ann, J.D., Public Administration
 Guillen-Lopez, Tonatiuh, M.A., Public Administration
 Helzer, Richard A., M.F.A., Music
 Hildebrand, John M., M.A., Communication
 Hoffman, Shelly I., M.S., Child and Family Development
 Holly, Dianne J., M.A., Drama
 Huth, Eric S., B.A., Recreation, Parks and Tourism
 Iyomasa, Marsha Ann Yukie, M.A., Recreation, Parks and Tourism
 Jacks, James C., Ph.D., Public Administration
 Kahn, Gregory M., A.B., Communication
 Katz, Martin B., M.A., Drama
 Keely, Richard C., M.F.A., Art
 Kempton, David L., M.S., Recreation, Parks and Tourism
 Kennedy, Tracey L., M.A., Recreation, Parks and Tourism
 Kilmer, Brian J., M.A., Music
 Klein, Jeannette E., M.A., Art

Klinge, Stacy L., B.A., Exercise and Nutritional Sciences
 Koverman, Paul T., Dance
 Lamson, Mark D., Music
 Larham, Margaret C., M.A., Drama
 Litrownik, Hollis M., M.A., Art
 Lord, Leslie K., Ph.D., Public Administration
 Love, Syd, M.A., Communication
 Lussa, Sue A., M.S., Communication
 Lustig, James B., M.S., Recreation, Parks and Tourism
 Macdougall, Sheila D., B.A., Drama
 MacKenzie, Mary R., M.S., Music
 Mattox, Tod B., M.A., Exercise and Nutritional Sciences
 Matzl, Whitney S., M.A., Exercise and Nutritional Sciences
 McGrory, John R., M.P.A., Public Administration
 McKenzie, Randi E., M.Ed., Exercise and Nutritional Sciences
 McLaughlin, Michael T., M.C.R.P., Public Administration
 McTighe, John J., M.P.A., Public Administration
 Mello, Bonnie L., M.A., Child and Family Development
 Mendes, Dale, M.S., Recreation, Parks and Tourism
 Mendlen, Diane M., B.S., Recreation, Parks and Tourism
 Messenger, Mark D., M.F.A., M.A., Art
 Miller, Yvette M., Ph.D., Communication
 Moura, Gualter R., A.B., Music
 Mueller, Michelle M., M.B.A., Communication
 Myers, Donald N., Ph.D., Child and Family Development
 Nakamura, Kotaro, M.A., Art
 Neill, R. William, M.A., Communication
 Novak, Daniel F., M.A., Communication
 Oleff, Howard, B.S., Communication
 Parker, Richard A., Ph.D., Public Administration
 Pedersen, D. Kent, J.D., Public Administration
 Podney, Elaine L., J.D., Public Administration
 Purwolelono, Sunarno, M.F.A., Music
 Rahn, Linda J., B.A., Recreation, Parks and Tourism
 Riddle, January, M.A., Communication
 Sauvajot, John B., M.S., Public Administration
 Schamu, Sara J., B.A., Art
 Schneider, Joseph F., M.A., Communication
 Siprut, Mark J., M.F.A., Art
 Smith, Gregory J., M.P.A., Public Administration
 Soria, Merja T., Music
 Swann, Cynthia L., M.S., Exercise and Nutritional Sciences
 Tarbox, James J., Ph.D., Communication
 Turner, Jr., Edward S., B.A., Communication
 Van Camp, Steven P., M.D., Exercise and Nutritional Sciences
 Watson, Deanna J., M.A., Music
 Welsh, Anne M., Ph.D., Dance
 Whaley, Shirley F., M.S., Public Administration
 Wilkins, Charles J., M.A., Public Administration
 Woolsey, Ralph A., Communication
 Wright, Jr., Robert A., B.S., Art
 Wu, Sharon, M.F.A., Communication
 Wulfmeyer, Lori L., J.D., Communication

SCIENCES

Avera, Daniel, B.S., Biology
 Baer, Shalom, Ph.D., Mathematical Sciences
 Bauder, Ellen T., Ph.D., Biology
 Bondi, Mark W., Ph.D., Psychology
 Branca, Melanie R., Ph.D., Mathematical Sciences
 Camp, Victor E., Ph.D., Geological Sciences
 Corbone, Ralph J., Ph.D., Physics

Conway, Terry L., Ph.D., Psychology
 Cripps, Richard M., Ph.D., Biology
 Dean, Robert J., M.A., Physics
 Dorman, Clive E., Ph.D., Geological Sciences
 Doyle, Thomas J., Ph.D., Psychology
 DuBois, Lisa G., Ph.D., Geological Sciences
 Dutcher, Joyce Shettel, Ph.D., Psychology
 Fattahpour, Mitra J., M.S., Geological Sciences
 Finkelstein, Doreen B., Ph.D., Psychology
 Goldin, Eric M., Ph.D., Biology; Physics
 Granholm, Eric, Ph.D., Psychology
 Hanscom, Patricia R., M.S., Biology
 Hardman, Jr., Ward F., M.S., M.B.A., Mathematical Sciences
 Hart, Michael W., M.S., Geological Sciences
 Herzig, Charles T., Ph.D., Geological Sciences
 Hokoda, Audrey J., Ph.D., Psychology
 Javor, Barbara Jo, Ph.D., Biology
 Johnson, Nancy E., Ph.D., Psychology
 Koliars, Peggy D., B.S., Biology
 Konoske, Paula J., Ph.D., Psychology
 Kroeker, Leonard P., Ph.D., Psychology
 Krown, Kevin A., Ph.D., Biology
 Lampe, Cynthia M., M.S., Geological Sciences
 Martin, Estrilita M.E., Ph.D., Biology
 Matloff, Jeffrey L., Ph.D., Psychology
 Mattson, Sarah N., Ph.D., Psychology
 McDonald, Barbara A., Ph.D., Psychology
 Meckstroth, Phyllis J., M.A.T., Mathematical Sciences
 Mikolon, Jr., Arthur G., B.S., Biology
 Noble, Helen A., M.S., Mathematical Sciences
 Peters, David W., M.S., Mathematical Sciences
 Peterson, Karen I., Ph.D., Chemistry
 Preest, Marion R., Ph.D., Biology
 Robinson, Kevin L., M.S., Geological Sciences
 Roeder, Phoebe E., Ph.D., Physics
 Sabbadini, Gail A., M.A., Biology
 Sanchez-Castiglioni, Rosalinda A., Ph.D., Psychology
 Sieber, William J., Ph.D., Psychology
 Snover, Richard L., M.S., Mathematical Sciences
 Stephany, Gary R., B.S., Biology
 Stolarz-Fantino, Stephanie J., Ph.D., Psychology
 Tackett, Patricia A., Ph.D., Psychology
 Tatum, B. Charles, Ph.D., Psychology
 Terry, Ann H., M.S., Geological Sciences
 Thompson, Sharon M., M.S., Physics
 Vickers, Jr., Ross R., Ph.D., Psychology
 Wingerd, Mala S., M.S., Biology

ATHLETICS

Andersen, Larry L., B.S.
 Babers, Dino, M.Ed.
 Burns, Beth, M.A.
 Clegg, Charles P., B.A.
 Craft, Thomas J., M.A.
 Delgado, Kenneth, B.S.
 Dietz, James C., M.S.
 Falar, Diane, B.A.
 Filter, Russell D.
 Fitzgerald, Jeffrey S., M.A.
 Gabel, Myles J., B.A.
 Gardner, Susanne L., B.A.
 Gilbert, Claude, M.S.

Green, Steve, B.A.
 Haines, Mark E., M.A.
 Hammond, J. Paige, B.A.
 Henn, John T., B.S.
 Holland, James P., B.S.
 Johnson, Gary B., M.S.
 Kappes, Felicia Faro, M.S.
 Mattera, Peter A., M.A.
 McDaniel, LeCharis B., B.S.
 Nelson, John., M.A.
 Ohton, David P., B.S.
 Peters, Carolyn R., M.A.
 Pola, Kennedy, M.A.
 Schmidt, Deena D.
 Schramm, David A., A.B.
 Sheffield, Rhan D., B.A.
 Spillers, James D., B.A.
 Spradley, Linda P., M.S.
 Stoner, Neale R., M.A.
 Tanner, Pamela L., M.S.
 Tollner, A. Theodore, M.A.
 Trenkle, Fred, M.A.
 Tripp, Tracy A., B.S.
 Van Wyk, Katherine N., M.A.
 Warner, James M., B.S.
 Warner, Mark A., B.A.
 White, Edward A., B.A.

IMPERIAL VALLEY CAMPUS

Anderson, John D., M.A.
 Balch, Patrick E., M.A.
 Blumberg, Louis M., Ph.D.
 Bowen, Von L., M.S.T.
 Briggs, John H., M.S.

Buckus, Patrick J., Ed.D.
 Carpenter, Jane S., M.A.
 Carrasco, Santos Arellanes, Ph.D.
 Corn, Phyllis M., B.A.
 Cornejo, Ricardo J., Ph.D.
 Derakhshan, Sepehr, M.A.
 Dollente, Sheila G., B.A.
 Duckworth, Joseph B., Ed.D.
 Elig, David A., B.B.A.
 Fastler, Jr., John A., M.Ac.
 Fitch, Suzanne, Ed.D.
 Garcia, Alicia, B.A.
 Gilbreath, Stuart H., Ph.D.
 Gomez-Montero, Sergio, B.A.
 Gonzalez, Refugio A., M.S.
 Jones, Evangelina B., M.A.
 Karge, Belinda D., Ph.D.
 Lee, James M., B.A.
 Leptich, Kurt C., B.A.
 Murton, Harriot H., M.Ed.
 Nunn, Pauline, M.A.
 Palese, Kate H., M.A.
 Parker, Richard A., Ph.D.
 Philipp, Randolph A., Ph.D.
 Rickard, James J., Ph.D.
 Rousseau, William, M.A.
 Sarot, Glenn F., Ed.D.
 Shaver, Barbara M., Ph.D.
 Sherlock, Warren T., M.A.
 Shinn, Mary O., M.Ed.
 Shook, Lynn E., B.A.
 Strom, David W., Ed.D.
 Travis, Reyna M., M.A.
 Walshok, Marco G., Ph.D.

Adjunct Faculty

ARTS AND LETTERS

Adona, Gabriel M.S., Rhetoric and Writing Studies
 Baksh, Michael G., Ph.D., Anthropology
 Bennett, Vivienne L., Ph.D., Arts and Letters, General
 Chagal, Vladimir E., Ph.D., Arts and Letters, General
 Cooper, Gwendale, Ph.D., American Indian Studies
 Cox, Thomas R., Ph.D., American Indian Studies
 Davies, Nigel, Ph.D., Arts and Letters, General
 Delys, Paul A., M.S., Rhetoric and Writing Studies
 Dorsey, James, M.A., Rhetoric and Writing Studies
 Eastland-Whitney, Phyllis A., Ph.D., Anthropology
 Emerich, Carl F., M.S., Rhetoric and Writing Studies
 Feldman, Arthur W., Ph.D., Arts and Letters, General
 Fielden, Carl, M.A., Rhetoric and Writing Studies
 Flor, Salvador B., M.S., Rhetoric and Writing Studies
 Foley, John A., Ph.D., History
 Gabay, Janis T., M.A., Rhetoric and Writing Studies
 Greb, G. Allen, Ph.D., Arts and Letters, General
 Grier, William H., M.D., Africana Studies
 Gross, George T., Ph.D., Anthropology
 Hayes, Charlotte E., M.S., Rhetoric and Writing Studies
 Hesse, Everett W., Ph.D., Spanish
 Johnson, Willard L., Ph.D., American Indian Studies
 Keesey, Miriam, M.A., Rhetoric and Writing Studies
 Keller-Lapp, Heidi, M.S.Ed., Rhetoric and Writing Studies
 Kern, Irving, B.S., Political Science
 Lin, Thomas Yun, B.A., Arts and Letters, General
 Lindburg, Donald G., Ph.D., Anthropology
 Linsky, Mark I., M.A., Political Science
 London, Barbara P., M.A., Rhetoric and Writing Studies
 Matthews, Fred, Ph.D., History
 McLeod, Dan, Ph.D., English
 Minjares, Michael A., B.A., Rhetoric and Writing Studies
 Mudgett, Carol A., Ph.D., Anthropology
 Onozaki, Tsuneo Leo, M.A., Arts and Letters, General
 Palacios, Gonzalo T., Ph.D., Arts and Letters, General
 Rady, Donald E., Ph.D., Arts and Letters, General
 Rea, Amadeo M., Ph.D., Anthropology
 Ridgway, Jeanette F., Ph.D., English
 Robinson, Millie, M.A., Rhetoric and Writing Studies
 Rodriguez, Joe D., Ph.D., American Indian Studies
 Rojas, Gonzalo, M.A., Mexican American Studies
 Shippek, Florence C., Ph.D., American Indian Studies
 Shor, Francis R., Ph.D., History
 Taschek, Jennifer T., Ph.D., Anthropology
 Tyson, Rose A., M.A., Anthropology
 Van Sickie, Douglas J., Ph.D., Rhetoric and Writing Studies
 Watson, Maria-Barbara, Ph.D., American Indian Studies
 White, Christopher W., M.A., Anthropology
 White, Phillip M., M.L.S., American Indian Studies
 Zondag, Cornelius H., Ph.D., Arts and Letters, General

BUSINESS ADMINISTRATION

Brooks, Richard D., M.B.A., Marketing
 Gumbiner, Judith G., M.S., Management
 Medeiros, Frank A., Ph.D., Management
 Riffenburgh, Robert H., Ph.D., Information and Decision Systems

EDUCATION

Block, Martin J., J.D., Counseling and School Psychology
 Galea'i, Kenneth E., Ph.D., Administration, Rehabilitation and Postsecondary Education
 Holmes, Teresa A., M.Ed., Counseling and School Psychology
 Jensen, Mogens R., Ph.D., Counseling and School Psychology
 Johnson, Rhonda J., M.A., Counseling and School Psychology
 Nachison, Jon, Ph.D., Counseling and School Psychology
 Nesvig, David T., Ed.D., Counseling and School Psychology
 Olfman, Dennis L., M.A., Counseling and School Psychology
 Robertson, David C., M.S., Counseling and School Psychology
 Robinson, Marilyn, M.A., Counseling and School Psychology
 Smock, Michael, M.A., Teacher Education
 Vidal, Jane A., M.S., Counseling and School Psychology

ENGINEERING

Bhaskaran, K. K., M.S., Mechanical Engineering
 Burns, Susan B., M.S., Mechanical Engineering
 Chuang, Alexander S., Ph.D., Mechanical Engineering
 Dagbasi, Mustafa, Ph.D., Mechanical Engineering
 Kaufman, Kenton R., Ph.D., Mechanical Engineering
 Leonard, Daniel R., M.B.A., Electrical and Computer Engineering
 Maheu, Richard F., M.S., Mechanical Engineering
 Sandoval, Jesse E., M.B.A., Mechanical Engineering
 Zhang, Naixin, M.S., Civil and Environmental Engineering

HEALTH AND HUMAN SERVICES

Anton-Culver, Hoda, Ph.D., Public Health
 Bassoff, Betty Z., D.S.W., Public Health; Social Work
 Beach, Diane L., M.P.H., Public Health
 Brodine, Stephanie Kay, M.D., Public Health
 Burnside, Irene M., Ph.D., Nursing
 Carroll, Karen C., B.S.N., Nursing
 Casuto, Doreen R., M.R.A., Nursing
 Conway, Fred J., Ph.D., Nursing
 Cummings, Susan H., M.N., Nursing
 Daleiden, Anne, M.S.N., Nursing
 Davidson, Judy E., M.S., Nursing
 Desesso, John M., Ph.D., Public Health
 DiStefano, Georgi L., M.S.W., Social Work
 Drummond, Martha M., M.S.W., Social Work
 Dublin, Penny, M.S.W., Social Work
 Eglolf, Mary Elizabeth, M.S.N., Nursing
 Fields, Willa L., D.N.Sc., Nursing
 Fong, Terri A., M.S.W., Social Work
 Gibson, Richard K., M.N., Nursing

Gill, Jeanne A., Ph.D., Social Work
 Goldman, Stephen N., M.A., Communicative Disorders
 Gross, Daniel L., M.S., Nursing
 Gunn, Robert A., Ph.D., Public Health
 Harris, Stephen B., Ph.D., Public Health
 Hill, Linda L., M.D., Public Health
 Hirschi, Kimberley C., Ph.D., Social Work
 Hughson, William G., Ph.D., M.D., Public Health
 Jackson, Marguerite, M.S., Nursing
 Josefowitz, Natasha, Ph.D., Social Work
 Kane, William J., M.D., Public Health
 Kaplan, Robert M., Ph.D., Public Health
 Kryter, Karl D., Ph.D., Communicative Disorders
 Langer, Robert, M.D., Public Health
 Ledbetter, Elizabeth K., M.D., Public Health
 Levy, Linda K., M.S.N., Nursing
 Lops, Vanda R., M.S.N., Nursing
 McNicholas, Lori Jean, M.A., Public Health
 Newhouse, Nancy L., M.S.W., Social Work
 Nickel, Verna M., M.S.N., Nursing
 Ostrom, Nancy K., M.D., Nursing
 Peddecord, K. Michael, Ph.D., Health and Human Services, General
 Pickwell, Sheila M., Ph.D., Nursing
 Reuer, Barbara L., Ph.D., Health and Human Services, General
 Riegel, Barbara J., D.N.Sc., Nursing
 Roppe, Beatrice E., B.A., Public Health
 Sandlin, Robert E., Ph.D., Communicative Disorders
 Schmidt, Mary Gwynne, Ph.D., Health and Human Services, General
 Seaborg, Patricia Calvert, M.S.W., Social Work
 Sikes, Pamela J., M.S., Nursing
 Singh, Sadanand, Ph.D., Communicative Disorders
 Stacy, Kathleen M., M.S., Nursing
 Templin, Kathleen A., M.N., Nursing
 Van Hoy, Liesel M., M.S.W., Social Work
 Waterman, Stephen H., M.D., Public Health
 Weisman, Irving, Ed.D., Social Work
 Yeager, Kim K., M.D., Public Health

PROFESSIONAL STUDIES AND FINE ARTS

Agree, Jon, B.A., Dance
 Airman, William D., M.S., Aerospace Studies
 Allen, Christopher H., B.M.E., Music
 Anderson, Mark C., M.A., Drama
 Anthony, Jeffrey, D.O., Exercise and Nutritional Sciences
 Baily, Stewart D., B.A., Naval Science
 Ballantyne, Peter, B.A., Exercise and Nutritional Sciences
 Benedetti, Fred M., M.M., Music
 Biggs, Martin "Gunnar", B.A., Music
 Bornemisza, Magdolna F., B.M., Music
 Boyd, John S., M.S., Naval Science
 Bursill-Hall, Damian, M.A., Music
 Byrd, Ronald, B.S., Exercise and Nutritional Sciences
 Cable, George W., A.A., Music
 Cannon, Derek L., B.A., Music
 Clapp, John A., Ph.D., Exercise and Nutritional Sciences
 Costagliola, Mario T., B.A., Military Science; Exercise and Nutritional Sciences
 Das Gupta, Aloke K., M.A., Music

Deaton, Larry T., B.S., Naval Science
 Emberger, Brad, B.S., Exercise and Nutritional Sciences
 Emrich, Emory C., B.M., Music
 Farrell, Peter S., M.M., Music
 Farris, Robert H., D.M.A., Drama
 Fisher, Irina, M.A., Dance
 Fisher, Thomas M., B.A., Exercise and Nutritional Sciences
 Flahan, Carl Mark, B.S., Exercise and Nutritional Sciences
 Flood, David L., M.D., Exercise and Nutritional Sciences
 Flood, John C., M.A., Music
 Fontana, Mark, B.F.A., Exercise and Nutritional Sciences
 Freedman, Jonathan B., B.A., Communication
 Fritch, Kathleen S., A.B., Exercise and Nutritional Sciences
 Gillette, Glenn A., B.F.A., Music
 Gottshall, Kim, M.A., Exercise and Nutritional Sciences
 Gruppman, Igor, M.A., Music
 Heaney, Jay, M.A., Exercise and Nutritional Sciences
 Helzer, Richard A., M.F.A., Music
 Heminger, Martha J., B.A., Music
 Hipp, J. Michael, B.A., Recreation, Parks and Tourism
 Huth, Scott, B.A., Exercise and Nutritional Sciences
 Hyland Eric N., Music
 Irza, Jude P., B.S., Naval Science
 Jenkins, Marvin N., Military Science
 Johnson, Norman A., Music
 Kammeyer, Grace D., M.A., Art
 Karto, Thomas L., B.S., Communication
 Katz, George L., M.S.M., Music
 Kaufman, Kenton R., Ph.D., Exercise and Nutritional Sciences
 Kilmer, Brian J., M.A., Music
 Korman, Michael, M.S., Naval Science
 Lamson, Mark D., Music
 Lane, Derek R., M.A., Drama
 Lane, John G., M.D., Exercise and Nutritional Sciences
 Lane, Karen J., B.A., Drama
 Lawrence, David A., B.S., Naval Science
 Lewis, Mary T., B.S., Naval Science
 Lichtenstein, David R., B.A., Exercise and Nutritional Sciences
 Lorge, John S., Music
 MacKenzie, Mary R., M.S., Music
 Marra, Kenneth J., M.S., M.B.A., Naval Science
 Martini, Kim J., B.S., Military Science
 McMahon, Timothy P., B.A., Music
 Meike, William A., B.M., Music
 Michel, Dennis P., M.A., Music
 Mitchell, Jim, Exercise and Nutritional Sciences
 Moelyono, Diana D., B.A., Music
 Moore, O. Ernest, Dance
 Mora, Jr., Ezequiel J., M.P.A., Aerospace Studies
 Moreno, Emmalyne L.S., B.A., Music
 Nideffer, Robert M., Ph.D., Exercise and Nutritional Sciences
 Olson, Leslie M., B.A., Music
 Parker, Richard A., D.O., Exercise and Nutritional Sciences
 Patton, Stuart, Ph.D., Exercise and Nutritional Sciences
 Pingerelli, Peter L., Ph.D., Exercise and Nutritional Sciences
 Price, Calvin C., M.Mus., Music
 Prindle, James A., M.A., Music

Purwolelono, Sunarno, M.F.A., Music
 Ramsdell, Joe W., M.D., Exercise and Nutritional Sciences
 Rekevics, John J., Music
 Renvall, Marian J., M.S., Exercise and Nutritional Sciences
 Reuer, Barbara L., Ph.D., Music
 Rice, E. Lee, D.O., Exercise and Nutritional Sciences
 Richardson, Charles, M.A., Exercise and Nutritional Sciences
 Roberts, Jr., Frank N., M.M.A.S., Military Science
 Romero, Celin G., B.A., Music
 Ross-Buckley, Beth A., M.M., Music
 Sexton, Barbara A., M.A., Art
 Smith, Barney I., B.A., Military Science
 Smith, Donald E., Ph.D., Art
 Smith, Jr., Morgan H., B.S., Naval Science
 Soria, Merja T., Music
 Stauffer, Cynthia D., M.A., Music
 Stewart, Douglas J., Ph.D., Exercise and Nutritional Sciences
 Stocking, Ann C., B.A., Drama
 Sweatt, Lilla, M.A., Art
 Toombs, Barry L., B.A., Music
 Tornsauter, Claudia, M.M., Music
 Tweed, Pauline E., B.S., Music
 Vetter, William L., M.D., Exercise and Nutritional Sciences
 Watkins, Rodney M., B.S., Exercise and Nutritional Sciences
 Westbrook, Jane, M.M., Music
 Whisenant, John D., M.B.A., Aerospace Studies
 White, Christine, B.A., Exercise and Nutritional Sciences
 Wile, Peter B., M.D., Exercise and Nutritional Sciences
 Wilson, Deborah L., Dance
 Yamamoto, Carl A., Dance
 Yordan, Philip, B.L., Communication
 Youngerman, Shala K., B.S., Exercise and Nutritional Sciences

SCIENCES

Alberts, Allison C., Ph.D., Biology
 Allen, Edith B., Ph.D., Biology
 Ancoli-Israel, Sonia, Ph.D., Psychology
 Anderson, Marilyn P., Ph.D., Biology
 Anderson, Virginia D., Ph.D., Psychology
 Axen, Gary, Ph.D., Geological Sciences
 Baer, Shalom, Ph.D., Mathematical Sciences
 Bainbridge, David A., M.S., Biology
 Barlow, Steven, Ph.D., Biology
 Barquin, Ricardo, Ph.D., Biology
 Biggart, Neal W., Ph.D., Biology
 Birchler, Gary R., Ph.D., Psychology
 Black, Charles H., Ph.D., Biology
 Bloch, Philip L., Ph.D., Biology
 Blom, Ronald, Ph.D., Geological Sciences
 Bond, James W., Ph.D., Mathematical Sciences
 Bowles, Ann E., Ph.D., Biology
 Braun, Lisa S., Ph.D., Psychology
 Brown, Sandra A., Ph.D., Psychology
 Bullock, Stephen H., Ph.D., Biology
 Butters, Nelson M., Ph.D., Psychology
 Cain, William S., Ph.D., Psychology
 Calfas, Karen J., Ph.D., Psychology

Callaway, John, Ph.D., Biology
 Chen, Keith, Ph.D., Chemistry
 Cheng, K. P., Ph.D., Astronomy
 Cleary, Joseph M., Ph.D., Biology
 Cleveland, Joan S., Ph.D., Biology
 Conway, Terry L., Ph.D., Psychology
 Courchesne, Eric, Ph.D., Psychology
 Crippen, Robert, Ph.D., Geological Sciences
 Czekala-Gruber, Nancy M., B.A., Biology
 Day, Adrienne, Ph.D., Biology
 De Wijk, Rene A., Ph.D., Psychology
 Delis, Dean C., Ph.D., Psychology
 Dessel, Norman F., Ph.D., Physics
 Dimsdale, Joel E., M.D., Psychology
 Dixon, John D., Ph.D., Biology
 Doyle, Arlene T., Ph.D., Biology
 Dubin, Adrienne E., Ph.D., Biology
 Durrant, Barbara S., Ph.D., Biology
 Feldman, Jeannine A., Ph.D., Psychology
 Felts, Benjamin E., M.S., Mathematical Sciences
 Flahan, Carl Mark, B.S., Biology; Geological Sciences
 Fong, Peggy, Ph.D., Biology
 Fox, Gordon A., Ph.D., Biology
 Germeys, Inez, M.A., Psychology
 Gillin, John C., M.D., Psychology
 Gilmanov, Tagir G., Ph.D., Biology
 Goldman, Florence W., Ph.D., Psychology
 Gonzalez, Maria R., M.S., Biology
 Granholm, Eric, Ph.D., Psychology
 Grant, Igor, M.D., Psychology
 Grismer, L. Lee, Ph.D., Biology
 Guzman, Elena, Ph.D., Biology
 Hall, Keith, Ph.D., Biology
 Hardy, Edgar E., Ph.D., Chemistry
 Harris, Michael E., Ph.D., Biology
 Hart, Cheryl, M.S., Biology
 Harvey, Nancy C., Ph.D., Biology
 Heaton, Robert K., Ph.D., Psychology
 Hemmingsen, Edvard A., D.Phil., Biology
 Heuschele, Werner, Ph.D., Biology
 Higgins, David R., Ph.D., Biology
 Hintzen, Paul M., Ph.D., Astronomy
 Hood, Jr., John M., Ph.D., Astronomy
 Jalowayski, Alfredo A., Ph.D., Psychology
 Jehl, Joseph R., Ph.D., Biology
 Jernigan, Terry L., Ph.D., Psychology
 Johnson, Brenda R., Ph.D., Psychology
 Johnson, Nancy E., Ph.D., Psychology
 Kaplan, Robert M., Ph.D., Psychology
 Kennedy, George L., Ph.D., Geological Sciences
 Killgrove, Raymond, Ph.D., Mathematical Sciences
 Klaas, Paul, Ph.D., Chemistry
 Klironomos, John, Ph.D., Biology
 Konopka, Andrzej K., Ph.D., Mathematical Sciences
 Kovach, William S., Ph.D., Astronomy
 Kulik, James, Ph.D., Psychology
 Kutas, Marta, Ph.D., Psychology

Lambris, John D., Ph.D., Biology
 Lance, Valentine A., Ph.D., Biology
 Legg, Mark, Ph.D., Geological Sciences
 Leighton, David L., Ph.D., Biology
 Lin, Shu-Wai, Ph.D., Chemistry
 Linarelli, Louis G., M.D., Psychology
 Magistrale, Harold W., Ph.D., Geological Sciences
 Marrin, Donn L., Ph.D., Geological Sciences
 Martinez, Mario, Ph.D., Geological Sciences
 Mathewson, Sue F., Ph.D., Biology
 Mayer, Joni A., Ph.D., Psychology
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- Zoology – (see Biology, 147)

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




























NO	Residence Halls - see (West) Chapultepec, Tarastec, Toltec, Zapotec Maya, Olmeca, Tenochca, Villa Alvarado, Zura
21	ROTC
29	Scholarship Office
41	Scripts Cottage and Park
PG 630	Smith Field and Baseball Clubhouse
PE 700	Softball Field
12	Speech and Telecommunications
PG 500	Sportsman Field - AZTRAC
113, 212	Storage Sheds
8	Storm Hall
42	Student Health Services
59	Student Outreach Services
29	Student Resource Center
29/59	Student Services (West/East)
48	Tarastec Residence Hall
50A	Templo del Sol
PG 650	Tennis Courts (West)
PE 720	Tennis Courts (East)
91	Tenochca Residence Hall
16	Terry Pool (PG-400)
29	Test Office
49	Toltec Residence Hall
475	Transit Center
91A	Tula Hall
30	Undergraduate Studies
29	Veterans Affairs
100	Villa Alvarado Residence Hall
75	Weightroom (Athletics)
34	West Commons
50	Zapotec Residence Hall
51	Zura Residence Hall

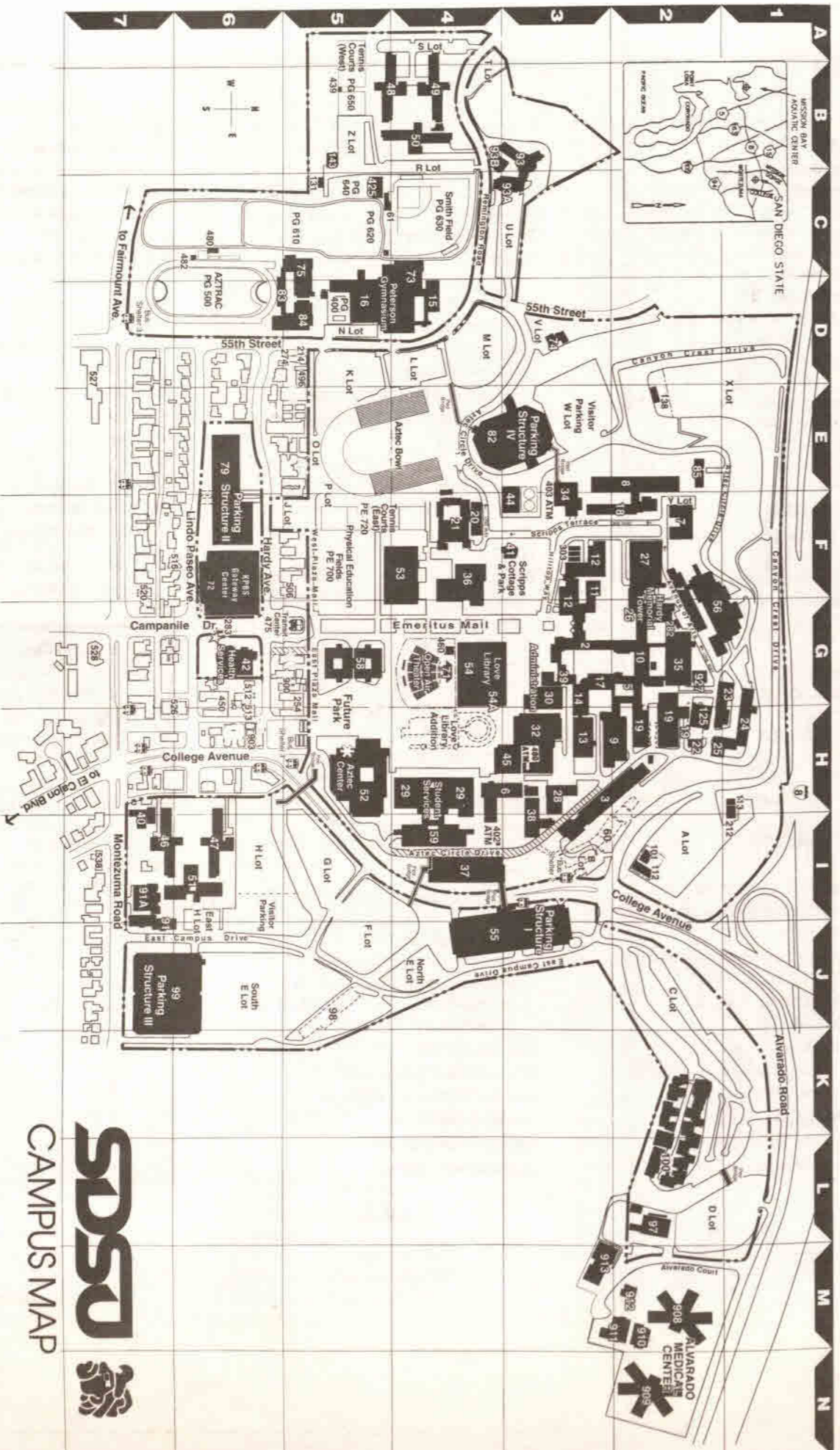
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	Build. No.	Grid Key
Information Center	52	H-5
Information - Parking	283	G-6
Transit Center	475	G-5

Grading index

A Lot	1-1
B Lot	1-2
C Lot	1-3
D Lot	1-4
E Lot (South)	1-5
E Lot (North)	1-6
F Lot	1-7
G Lot	1-8
H Lot	1-9




U Lot	D-3	   
V Lot	E-3	   
W Lot	E-3	   
X Lot	E-1	   
Y Lot	E-2	   
Z Lot	B-5	   
Parking Structure I	J-3	   
Parking Structure II	F-6	   
Parking Structure III	J-7	   
Parking Structure IV	E-4	   



SDSU
CAMPUS MAP

[illegible][illegible]

General Information

	Build. No.	Grid Key
 Information Center	52	H-5
 Information - Parking	283	G-6
 Transit Center	475	G-5

Parking Type

Student	<input type="checkbox"/> S	Handicapped
Resident Student	<input type="checkbox"/> R	Special Permit
Faculty / Staff	<input type="checkbox"/> F	Motorcycles
Visitor / Metered	<input type="checkbox"/> M	S D Transit

Parking Index

	Grid Key	Parking Key
A Lot	1-2	
B Lot	1-3	
C Lot	J-2	
D Lot	L-2	
E Lot (South)	J-6	
F Lot (North)	J-4	
G Lot	J-5	
H Lot	I-5	
	I-6	

J Lot	F-5				
K Lot	D-5				
L Lot	D-4				
M Lot	D-4				
N Lot	D-5				
O Lot	E-5				
P Lot	E-5				
R Lot	B-4				
S Lot	A-4				
T Lot	B-4				

U Lot	C-3	10	4
V Lot	D-3	10	3
W Lot	E-3	10	4
X Lot	E-1	10	3
Y Lot	F-2	10	3
Z Lot	B-5	10	3
Parking Structure I	J-3	10	4
Parking Structure II	F-6	10	3
Parking Structure III	J-7	10	3
Parking Structure IV	E-4	10	3



SAN DIEGO STATE UNIVERSITY
5500 CAMPANILE DRIVE
SAN DIEGO, CA 92182
CATALOG • EDUCATIONAL MATERIAL

Hardy Memorial Tower

Through all the growth and transformations of San Diego State University, Hardy Memorial Tower, built in 1931, still stands as a focal point of the campus. It was one of the original campus buildings for what was then San Diego State Teachers' College. Of Moorish design, it rises more than 137 feet above Montezuma Mesa. Its original purpose was simply to conceal a water storage tank. During construction, the architect, realizing that it would become a landmark because of its height, changed the design to beautify the tower.

The water tank was included in the campus plan as a safety measure to assure sufficient water pressure in case of fire on the dry mesa. Fortunately, it never had to be used for that purpose. The tower, however, has served other purposes. The ground level area was part of the old library; the top of the tower became the site of a carillon.

In 1946, Senator and Mrs. Ed Fletcher presented a gift to the college of a set of chimes for the tower. They were installed above the water tank along with an automatic timing device, a 32-key piano keyboard, and four speakers. The chimes were installed on what was referred to as the ninth floor, although there actually are no floors between the library on the ground floor and the water storage tank at the top. Maintenance workers and others could use a spiral staircase or an elevator to get from the library level to the carillon.

The chimes fell silent in the early '60s because of mechanical difficulties and lack of replacement parts. However, in 1966, the Fletcher Foundation donated funds to replace the original chimes with a new set of Westminster chimes that allowed for a greater range of programming.

In 1985, the Fletcher Foundation and the SDSU Associated Students funded a renovation and upgrade to a digital chronobell 50-bell symphonic carillon with a computer memory system. The instrument today reflects the state-of-the-art in carillon design and technology.

The tower also went through some changes. A red aviation light was placed on top in 1960, and the structure was designated a historical marker for the Federal Aviation Administration. Various referred to throughout its history as the Campanile and the Library Tower, the structure was officially designated the Hardy Memorial Tower in 1975, in honor of the University's second president Edward Hardy. In 1986, it was reconfigured into its present state of classrooms and offices.

