THE CALIFORNIA STATE UNIVERSITY

# SAN DIEGO STATE UNIVERSITY / 1994-95 General Catalog



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# General Catalog

and

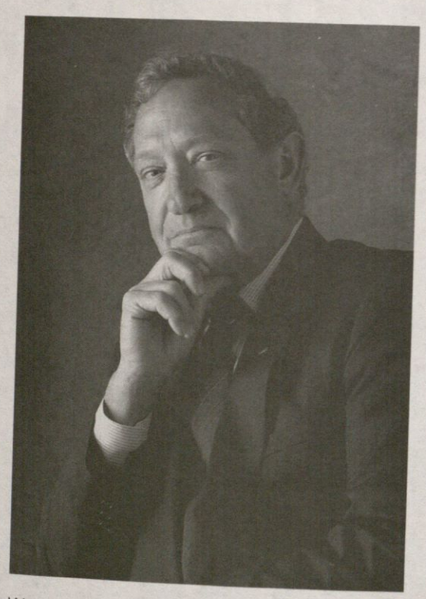
# Announcement of Courses

Volume 81

1994-1995

San Diego State University
5300 Campanile Drive
San Diego, California
92182-0763
(619) 594-5200

Dear Student,



Welcome to the start of a great adventure!

I'm pleased you've chosen San Diego State University as a place to explore and discover.

This catalog is designed to help you understand the University so you can make the most out of your college years. It describes the mission of this educational facility and provides details about courses, student services, and graduation requirements. You will be doing yourself a favor if you take time now to look through the valuable information on the pages that follow.

Our large and diverse University is composed of seven academic colleges and 137 bachelor's, master's and doctoral degree programs which help some 28,000 students prepare for their careers. We've come a long way from 1897 when we were a teacher's college which held classes over a drugstore in downtown San Diego.

We are proud to blend research and scholarship with the finest classroom teaching. It's a combination that leads to success for the thousands of students who graduate year after year. SDSU continues to be the acknowledged leader in The California State University system and one of the most respected campuses in the Western United States.

Even today, when state budget reductions cause us to re-examine how SDSU shall meet its mission of providing well-balanced, high-quality education, we are doing all we can to protect your interests and to ensure the best preparation for your future.

I encourage you to seek out and take advantage of all the University has to offer. As you embark on your intellectual adventure, I wish you all the best.

Thomas B. Day
President

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# Annual Calendar

## CALENDAR 1994

| JANUARY | | | | | | |
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| FEBRUARY | | | | | | |
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| AUGUST | | | | | | |
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## CALENDAR 1995

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| AUGUST | | | | | | |
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| SEPTEMBER | | | | | | |
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| OCTOBER | | | | | | |
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| NOVEMBER | | | | | | |
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| DECEMBER | | | | | | |
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# 1994–1995 Academic Calendar

**SUMMER SESSIONS 1994***

| | |
|---|---|
| May 31-June 17 | Term A (3 weeks). |
| May 31-June 24 | Term B (4 weeks). |
| May 31-July 8 | Term C (6 weeks). |
| May 31-August 19 | Term Z (12 weeks). |
| June 20-July 22 | Term D (5 weeks). |
| June 20-July 29 | Term E (6 weeks). |
| June 20-August 12 | Term F (8 weeks). |
| July 4 | Holiday–Independence Day. Staff holiday (no classes). |
| July 11-August 19 | Term G (6 weeks). |
| August 1-19 | Term H (3 weeks). |

**FALL SEMESTER 1994**

| | |
|---|---|
| August 1 | Applications for admission or readmission to San Diego State University for the spring semester 1995 accepted. Applications are accepted after August 31 only until enrollment quotas are met. Graduate applicants should consult the Graduate Bulletin for closing dates. |
| August 22 | First day of fall semester. Opening date of the academic year for faculty. |
| August 22-26 | Orientation and advising days. |
| August 25-26 | Testing and advising days. |
| August 29 | First day of classes. |
| Aug. 29-Sept. 12 | Late Registration. |
| September 5 | Holiday–Labor Day. Staff holiday (no classes). |
| September 12 | Last day to drop classes. |
| September 13 | Last day to apply for refunds. |
| September 15 | Deadline for submission of transcripts to the Office of Admissions and Records for transfer credits to be applied to Spring 1995 registration. |
| September 16 | Last day to apply for request to enroll for concurrent master's degree credit. |
| September 19 | Last day to add classes, change grading basis, or apply for course "forgiveness." |
| September 19 | Last day to withdraw officially from the University for fall semester 1994. |
| September 23 | Last day to file application for bachelor's degree for December 1994 graduation. |
| September 26 | Census. |
| November 1 | Applications for admission or readmission to San Diego State University for the fall semester 1995 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 24-26 | Holiday–Thanksgiving recess. Staff holiday (no classes). |
| December 9 | Last day of classes before final examinations. |
| December 10-17 | Final examinations. |
| December 22 | Winter recess begins. |
| December 22-28 | Holiday–Winter recess. Staff holiday (no classes). |
| December 29 | Grades due from instructors. (Noon deadline.) |
| December 29 | Last day to apply for a leave of absence for fall semester 1994. |
| December 29 | Last day of fall semester. |
| January 2 | Holiday–New Year's. Staff holiday (no classes). |

**WINTER SESSION 1995***

| | |
|---|---|
| January 3-20 | Winter Session. |
| January 16 | Holiday–Martin Luther King, Jr. Day. Staff holiday (no classes). |

**SPRING SEMESTER 1995**

| | |
|---|---|
| January 16 | Holiday–Martin Luther King, Jr. Day. Staff holiday (no classes). |
| January 23 | First day of spring semester. Opening date of semester for faculty. |
| January 23-27 | Orientation and advising days. |
| January 26-27 | Testing and advising days. |
| January 30 | First day of classes. |
| Jan. 30-Feb. 10 | Late Registration. |
| February 1 | Applications for bachelor's degree for December 1995 graduation accepted. |
| February 10 | Last day to drop classes. |
| February 13 | Last day to apply for refunds. |
| February 13 | Last day to file application for bachelor's degree for May and August 1995 graduation. |
| February 17 | Last day to add classes, change grading basis, or apply for course "forgiveness." |
| February 17 | Last day to withdraw officially from the University for spring semester 1995. |
| February 17 | Last day to file petition for concurrent master's degree credit for spring semester 1995. |
| February 24 | Census. |
| March 15 | Deadline for submission of transcripts to the Office of Admissions and Records for transfer credits to be applied to Fall 1995 registration. |
| April 8 | Last day of classes before spring recess. |
| April 10-15 | Spring recess. |
| April 17 | Classes resume. |
| May 18 | Last day of classes before final examinations. |
| May 19 | Study and consultation day. |
| May 20-27 | Final examinations. |
| May 27-28 | Commencement. |
| May 29 | Holiday–Memorial Day. Staff holiday (no classes). |
| May 31 | Grades due from instructors. (Noon deadline.) |
| May 31 | Last day to apply for a leave of absence for spring semester 1995. |
| May 31 | Last day of spring semester. |
| July 1 | Applications for bachelor's degree for May and August 1996 graduation accepted. |

**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). |

* 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 1994-1995

**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 1994-95 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 instructions and forms are in the Class Schedule available at the campus bookstore. Additional forms are available at the University Cashiers Office.**

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 | $568.00 |
| 6.1 or more units | $871.00 |

The above fee also includes a Student Activity Fee of $15.00, a Student Union Fee of $63.00, 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 $417.00 or $720.00, depending on unit load.

Imperial Valley Campus students pay a Student Union Fee of $16.00 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.

8. Children of deceased law enforcement or fire suppression prevention employees.

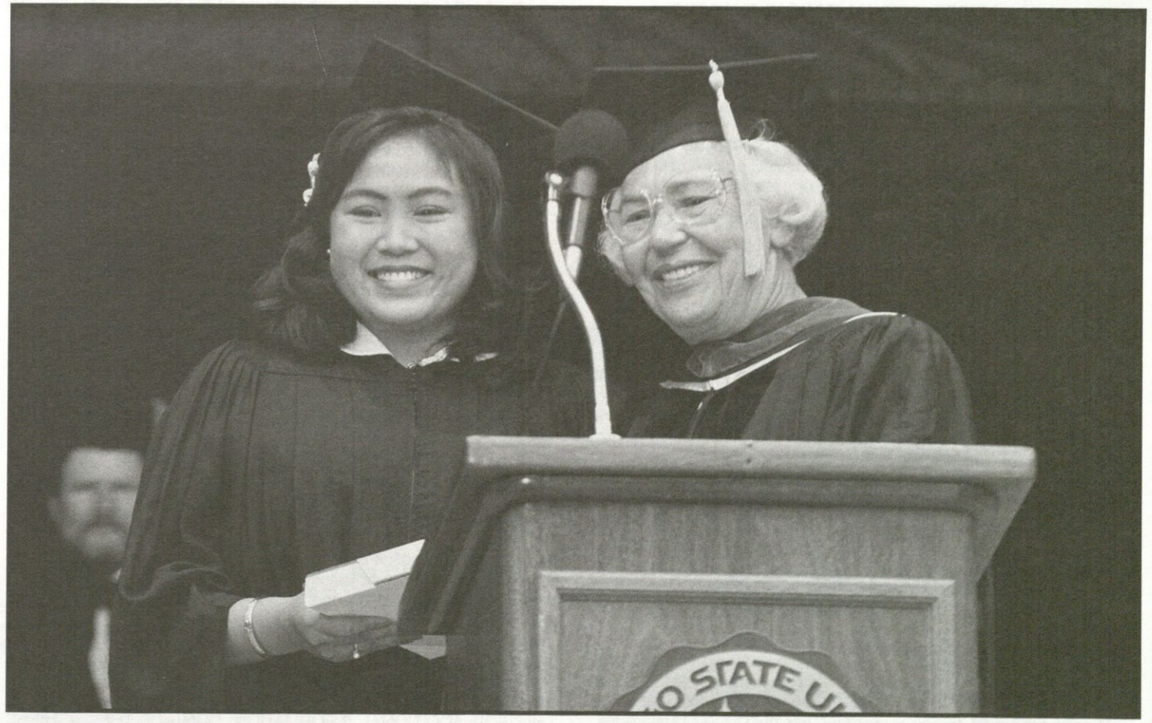
* Signed affidavit of eligibility required; contact University Cashier's Office.

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 $151.00.







### 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

### 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 only ..... 3.00
Fee receipt card only ..... 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) ..... 2.00
Lost key fee (per key) ..... 10.00
Miscellaneous course charge (optional) ..... As established and approved

* Late fee also charged when applicable.

### MISCELLANEOUS INSTRUCTIONAL COURSE CHARGES

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

*Accountancy* 302.

*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.

*Music* 151, 345.

*Physical Education* 116A-116B, 119A-119B, 124, 138, 145, 146, 147, 150A-150B, 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 social security number 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. Non-*RegLine* registration payments must be made at the time of registration.

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 Family Education Loans (Stafford, Supplemental Loans for Students (SLS), Parents Loans for Undergraduate Students (PLUS)
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.

Nonreserved space per semester:

| *Period* | *Amount of Refund* |
|---|---|
| 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 postbaccalaureate 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, *Education Code,* Section 68121. Students qualifying for these benefits are known as Alan Pattee scholars. For further information contact the Admissions and Records Office, 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 (*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,* Sections 42380 and 42381). 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. Today, all 20 campuses have the title "University."

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

Responsibility for The California State University is vested in the Board of Trustees, 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 20 campuses and the Chancellor's Office of The California State University are financed primarily through funding provided by the taxpayers of California. The total State appropriation to the CSU for 1993/94 (including capital outlay funding in the amount of $240,459,000) is $1,723,703,000. However, the total cost of education for CSU, is $2,081,064,210 which must provide support for a projected 247,494 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 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 $8,408. Of this amount, the average student fee support per FTE is $1,978. (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 $1,978, depending on whether they are part-time, full-time, resident, or nonresident students.)

| | *Amount* | *Average Cost Per FTE Student* | *Percent* |
|---|---|---|---|
| Total Cost of Education | $2,081,064,210 | $8,408 | 100.0 |
| –State Appropriation | 1,483,244,000 | 5,993 | 71.3 |
| –Student Fee Support | 489,572,610 | 1,978 | 23.5 |
| –Support from Other Sources | 108,247,600 | 437 | 5.2 |





## Trustees of The California State University

### Ex Officio Trustees

The Hon. Pete Wilson ..... State Capitol
Governor of California ..... Sacramento 95814

The Hon. Leo T. McCarthy ..... State Capitol
Lieutenant Governor of California ..... Sacramento 95814

The Hon. Willie L. Brown, Jr. ..... State Capitol
Speaker of the Assembly ..... Sacramento 95814

..... 721 Capitol Mall
State Superintendent of Public Instruction ..... Sacramento 95814

Dr. Barry Munitz ..... 400 Golden Shore
Chancellor of ..... Long Beach 90802-4275
The California State University

### Officers of the Trustees

Governor Pete Wilson
President

Mr. R. J. Considine, Jr.
Vice Chair

Mr. Anthony M. Vitti
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.

Dr. Bernard Goldstein (1993)
Mr. R. J. Considine, Jr. (1994)
Dr. Claudia H. Hampton (1994)
Dr. John E. Kashiwabara, M.D. (1994)
Mr. William D. Campbell (1995)
Ms. Martha C. Fallgatter (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. Terrance W. Flanigan (1999)
Mr. J. Gary Shansby (1999)
Mr. William Hauck (2001)
Dr. Joan Otomo-Corgel (2001)
Ms. Rosemary Thakar (2001)
Mr. Michael D. Stennis (2002)

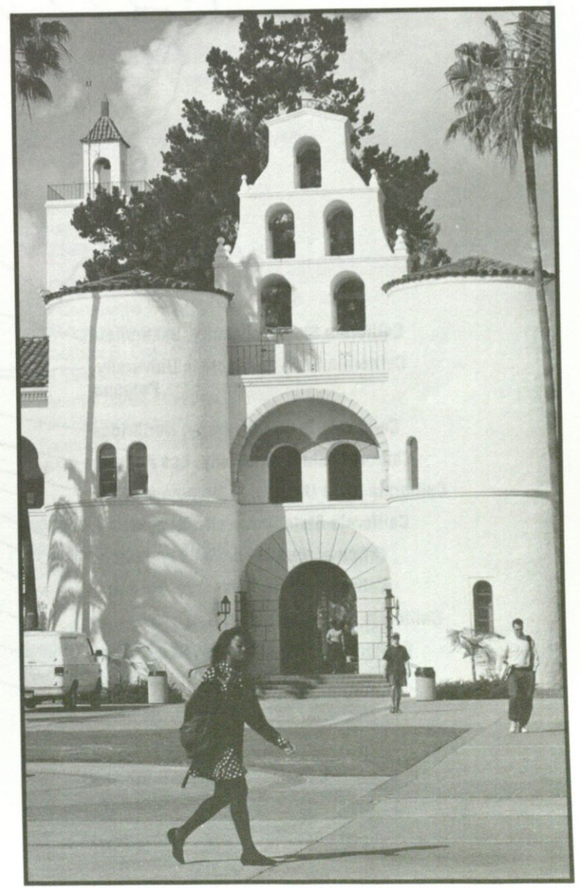
*Correspondence with Trustees should be sent:*

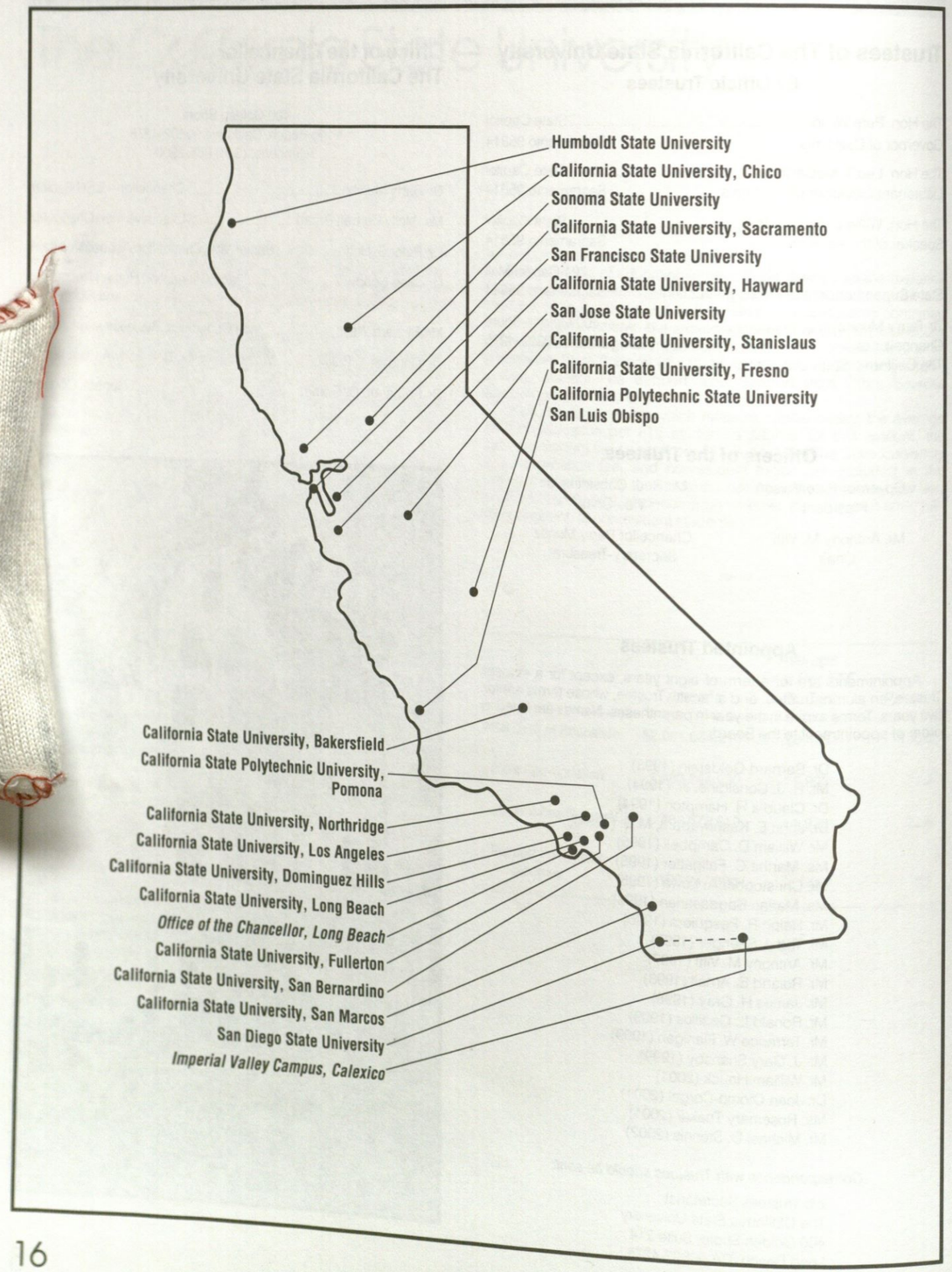
c/o Trustees Secretariat
The California State University
400 Golden Shore, Suite 214
Long Beach, CA 90802-4275

## 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 Cooper ..... Vice Chancellor, Human Resources and Operations
Mr. Richard West ..... Vice Chancellor, Business and Finance
Dr. Douglas X. Patiño ..... Vice Chancellor, University Advancement
Dr. Fernando C. Gomez ..... General Counsel










## 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. Karl Anatol, Interim 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 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. Lee R. Kerschner, Interim 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
5300 Campanile Drive
San Diego, California 92182
Dr. Thomas B. Day, President
(619) 594-5000

Imperial Valley Campus
720 Heber Avenue
Calexico, 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. J. Handel Evans, Acting 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 in the 1980s. 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 Library.

The University now offers bachelor's degrees in 74 areas, the master's in 54, 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 .....
Vice President for Student Affairs ..... Daniel B. Nowak
Vice President for University Relations and Development ..... Harry R. Albers
Director of University Telecommunications .....

## San Diego State University President's Advisory Board

Vincent R. Ciruzzi
Frederick P. "Pat" Crowell
Ronald L. Fowler
Jack W. Goodall
Arthur Madrid
Richard W. Meads
Josiah L. Neeper
Ed Quinn
Armando M. Rodriguez
Gerald R. Sanders
Thomas C. Stickel
Robert J. Watkins
Robert E. Williams
Rosalind A. Winstead
Elizabeth Yamada, Chair

## Administration

**Office of the President**
Executive Assistant to the President ..... Barbara W. Hartung
Coordinators of Affirmative Action ..... Robert E. McCabe, Augustine S. Chavez

**Office of the Vice President for Academic Affairs**
Associate Vice President for Academic Affairs ..... Frank A. Medeiros
Associate Vice President for Faculty Affairs ..... Dean O. Popp
Associate Vice President, Academic Resources ..... Ethan A. Singer
Assistant Vice President for Academic Services ..... Jane K. Smith
Director of Academic Computing Technology ..... Glenda Higgins
Director of Media Technology Services ..... William A. Broderick
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 ..... Sally F. Roush
Director of Financial Management ..... Kenneth B. Perry
Director of Facilities Planning and Management ..... W. Anthony Fulton
Director of Internal Review ..... Ellene J. Anderson
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
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 ..... George Hutchinson
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)
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 Donor and Alumni Information Services ..... David Anderson
Director of Alumni and Annual Fund ..... Barbara Barrow
Director of Intercollegiate Athletics ..... Fred L. Miller
President of Aztec Athletic Foundation ..... Al Araiza

## Colleges, Schools, Departments, and Programs

*Chairs*

COLLEGE OF ARTS AND LETTERS ..... Paul J. Strand, Dean
Associate Dean ..... Patricia Huckle
Assistant Dean for Student Affairs ..... Ann M. Johns
Assistant Dean for Development ..... Barbara London

**Departments**
Africana Studies ..... Norman E. Chambers
American Indian Studies ..... Linda S. Parker
Anthropology ..... Dan Whitney
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 (Acting)
History ..... David V. DuFault
Linguistics and Oriental Languages ..... Robert Underhill
Mexican American Studies ..... Isidro D. Ortiz
Philosophy ..... Thomas S. Weston
Political Science ..... Louis M. Terrell
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 ..... Thomas M.D. Warschauer
- Associate Dean and Director of Undergraduate Program ..... Robert W. Wilbur
- Associate Dean, Community Economic Development ..... Harold K. Brown
- Director of Development ..... Chris A. Audette
- Assistant Dean for Student Affairs ..... Patricia L. Dintrone

Departments and Schools
- Accountancy ..... O. Ray Whittington
- Finance ..... Nikhil P. Varaiya
- Information and Decision Systems ..... John M. Penrose
- Management ..... Michael L. Hergert
- 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

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. Kuhlman
- Special Education ..... Ian R. Pumpian
- Teacher Education ..... George L. Mehaffy

COLLEGE OF ENGINEERING ..... George T. Craig, Dean
- Associate Dean ..... Nihad A. Hussain
- Assistant Dean for Student Affairs ..... Fang-Hui Chou

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

COLLEGE OF HEALTH AND HUMAN SERVICES ..... Dolores A. Wozniak, Interim Dean
- Associate Dean ..... Olita D. Harris (Acting)
- Associate Dean ..... Steven J. Kramer (Acting)
- Assistant Dean for Student Affairs ..... Li-Rong Lilly Cheng

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 Academic Affairs .....
- Assistant Dean for Student Affairs ..... Carole A. Robasciotti

Departments and Schools
- Aerospace Studies ..... Lt. Col. William D. Airman
- Art ..... Fredrick J. Orth
- Drama ..... Alicia M. Annas
- Family Studies and Consumer Sciences ..... Francine Deutsch
- Industrial Technology .....
- Journalism ..... Glen M. Broom
- Military Science ..... Lt. Col. Frank Roberts, Jr.
- Music ..... Martin J. Chambers
- Naval Science ..... Capt. John S. Boyd
- Physical Education ..... B. Robert Carlson
- Public Administration and Urban Studies ..... Louis M. Rea
- Recreation, Parks and Tourism ..... Gene G. Lamke
- Speech Communication ..... Al R. Weitzel (Acting)
- Telecommunications and Film ..... Joseph S. Johnson

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

Departments
- Astronomy ..... Ronald J. Angione
- Biology ..... Carol A. Barnett
- Chemistry ..... Morey A. Ring
- Geological Sciences ..... Michael J. Walawender
- Mathematical Sciences ..... John D. Elwin
- Natural Science ..... Kathleen M. Fisher
- Physics ..... Stephen B. W. Roeder
- 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 Academic Services ..... Kathleen Russum

OFFICE OF THE DEAN OF THE GRADUATE DIVISION AND RESEARCH ..... James W. Cobble, Dean
- Associate Dean ..... 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 ..... Olita D. Harris
- 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
- Director of International Business Development ..... Leslie F. Yerger
- Director of International Training Center ..... Miguel A. Cardenas
- 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 ..... Amy Giberson
- 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, handicap, 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 201 active chapters with a membership in excess of 160,000.

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 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, Dr. Ernst Griffin, Professor of Geography, 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** is a national honor society which 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 freshmen 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
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, 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, predentistry, prelegal, premedical, and preveterinary 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.



# Student Services

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

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, 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; 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 admission 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 free measles and rubella immunizations 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, 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 emergency treatment and/or transportation to Health Services, 5300 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, extended quiet, multicultural, academic majors 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 590 students. Five other halls are three-story, red-brick buildings accommodating 223 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. Food service plans are available for residents. 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 1993-94 year, the cost for room and board was $4,370 (14-meal plan, double occupancy). Fees for Villa Alvarado, which do not include board or utilities, were $3,436 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) 265-6500**

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, Emerging Leader Program, and *Student Lifelines*. 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.

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. Two newspapers, *Parenthetically Speaking* for parents and families of SDSU students, and *Student Lifelines* for students are 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 1993-94 Academic Year**

| | Living off Campus | Living on Campus | Commuting from Home |
|---|---|---|---|
| Registration fee for materials, service, student activity, student union, facilities | $ 1742 | $1742 | $1742 |
| Books and supplies | 612 | 612 | 612 |
| Room and board | 6318 | 5110 | 1998 |
| Transportation | 684 | 576 | 684 |
| Personal | 1728 | 1728 | 1728 |
| Total | $11,084 | $9768 | $6764 |

In addition to the registration fee, non-resident (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 freshman 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**
- 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
- John D. Dickinson Memorial
- 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
- Tohmatsu Awoki/Touche Ross

**Religious Studies Department**
- James E. Sparks Memorial

**Spanish Department**
- Clifford H. Baker Memorial
- Raymond D. Weeter

**Women's Studies Department**
- Friends of Women's Studies
- Graduate Fellowship Fund

**College of Arts and Letters Miscellaneous Scholarships**
- Anonymous B–Outstanding Language Student
- 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
- Price Waterhouse

**Financial Services**
- John Burnham & Sons
- Robert R. Driver Company
- 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
- Leroy Pemberton Memorial

**Management Department**
- David W. Belcher Memorial
- Lynn Peters Memorial
- Frances Torbert Memorial

**Marketing Department**
- Connie Fotinos Memorial
- W.A.F.C.

**Real Estate**
- John Cotton Memorial
- Ed Fletcher Foundation
- Robert C. Hird Memorial

**College of Business Administration Miscellaneous Scholarships**
- Buck Foundation
- Business Department Minority
- College of Business Administration
- College of Business Internship Program
- Farmers Insurance
- Robert Hess Memorial
- MABA
- Pacific Corporate Group, Inc.
- Pacific Telesis-MBA
- South East Asian Alliance
- Christina Lynn Velasco Memorial
- Monica Williams Memorial







## COLLEGE OF EDUCATION
- Patricia Calhoun Memorial
- California PTA
- California Retired Teachers Assoc.
- Ben Ziri Caravan
- Ray Chavez
- 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
- Inside Track
- Judy and Donald James Memorial
- Kappa Beta Nu
- LaPray/Schmock
- George and Mary Lazar Memorial
- Raymond Letsinger Trust
- Catherine Y. Lodge Memorial
- Robert R. Nardelli Memorial
- Richard Servey Memorial
- Vickie Sleiman–Equity in Education
- John Paul Stone Memorial
- Leslee Teincuff Memorial
- Upward Bound Alumni Club
- Gail White Memorial

## COLLEGE OF ENGINEERING

**Civil Engineering Department**
- Association of California Water Agencies
- Byrl Phelps/San Diego Engineers Club
- Pountney and Associates, Inc.

**Electrical Engineering Department**
- Electrical Engineering Department
- IEEE

**Mechanical Engineering Department**
- ASHRAE

**College of Engineering Miscellaneous Scholarships**
- Achievement Rewards for College Scientists (ARCS)
- Ball Corporation
- Camp Dresser and McKee
- David G. Fleet
- Fleet Foundation
- S.L. Frankel
- Eric Gaipa Memorial
- General Dynamics
- Hughes Aircraft
- L.A. Power and Water
- Lockheed Leadership
- Lockheed/M.E.P.
- Louise McNally
- NACME
- Nasland Engineering
- National Science Foundation
- S. Falck Nielsen Family
- Pacific Telesis
- Scientific Atlantic Minority
- Structural Engineers
- Cheng-Mo Sun
- TRW
- UNISYS
- 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**
- Dental Health
- Lori D. Lemas Memorial

**School of Nursing**
- Emeritus Faculty Nursing
- Katherine R. Foley Memorial
- Dorothea Lambert Memorial
- Rueben Marks Memorial
- Lottie E. Olberg Trust
- Petra Steinhauser Memorial
- Frances Shimp Tidwell Memorial

**Graduate School of Public Health**
- California PTA
- Morton Schweitzer 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

**Art Department**
- 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

**Dance**
- Marguerite Ellicott Memorial
- George Willis

**Drama Department**
- Joseph J. Bellinghiere Memorial
- Jeweldean Brodie Memorial
- Drama Department Hispanic
- Drama Department Patron's
- Sybil E. Jones Memorial
- Gordon Lusk Memorial
- Jennifer McCabe Memorial
- Marion Ross
- Hunton Sellman Memorial
- Henry Stanton Memorial

**School of Family Studies and Consumer Sciences**
- Thair Milne
- Barbara Rosenblatt Memorial
- Victoria Smart Memorial
- Georgia Tait Stooke Memorial

**Industrial Studies Department**
- Epsilon Pi Tau
- James "Chris" Nichols Memorial

**Journalism Department**
- AD Club of San Diego
- James Copley Foundation
- Donald Hauck Gay and Lesbian
- Harold Keen Memorial
- KFMB
- McGraw-Hill
- Jane Nelson Memorial
- Val Ryser Memorial
- Reggie Smith Memorial
- Women in Communication

**Music Department**
- Nadine Bolles Memorial
- Jean Taylor Brown Memorial
- Joseph J. Fisch
- Elsie Hiland Fox Memorial
- M.H. Golden
- Lois Greeno Memorial
- Joseph E. Johnson
- Kiwanis Club
- Lieber-Flower
- Jan Lowenbach, Musicology
- Alvin Morrison Memorial
- Music Department Fund
- Musical Theater
- Bessie S. Purdy Memorial
- William Resnick
- Edith Savage Memorial
- SDSU Opera Theatre
- Sigma Alpha Iota
- SPEBQSA
- Paul C. Stauffer Memorial
- University Band
- Ellen Woolley, Orchestra
- Marvin Yerkey Memorial

**Physical Education Department**
- Adult Fitness Program
- Marguerite Ellicott Memorial
- William Ellis Memorial
- Mary Quam Hawkins Memorial
- Reet Howell Memorial
- Margaret "Robin" Murphy Memorial
- Miriam Paine Memorial
- Physical Education Fund
- Barbara Rosenblatt Memorial

**School of Public Administration and Urban Studies**
- Cotton/Bland/Associates, Inc.
- John Fowler Award

**Recreation, Parks and Tourism Department**
- Bonnie Jean Gore Memorial
- Recreation Faculty

**Speech Communication Department**
- Jack Mills Memorial
- Gracia Ogden Memorial
- Percie Belle Senn Memorial
- Kevin Simmons Memorial

**Telecommunications and Film Department**
- Clayton Brace Memorial
- Steve Harwood Memorial
- KFMB
- McGraw-Hill Broadcasting

**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**
- Biology Senior Award
- Jordan Covin Memorial
- Crouch Scholarship for Avian Behavior
- Robert Harwood Memorial
- 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

**Natural Science Department**
- Skolil/Smith Physical Science

**Physics Department**
- Optics-Physics
- Physics Summer Research
- Skolil Fund
- SPIE Physics

**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)
- David G. Fleet
- Harry E. Hamber Memorial
- Mary Melton Kantor Memorial
- Phillip Kantor Memorial
- Patricia Lozada Memorial
- 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
- Ambassadors
- Associated Students
- Aztec Shops
- Donald Basile Memorial
- Mary Earnest Bean (Disabled Students)
- Brian Billotte Memorial
- Thomas C. Bishop
- Maryl Brooksher Memorial
- Campbell/Cartier Memorial
- Cesar Chávez Memorial Book Scholarship
- Copley (Disabled Students)
- Thomas Cortez
- Tony Esse Memorial
- Eric Etebari
- Martha Farnum Memorial
- Amelia Fontaine Memorial
- Fox Foundation
- Fox/Granger
- Johanna M. Fox Memorial
- John and Henry Fox
- General Fund
- Arthur C. Harris Memorial
- Kathleen Horn Memorial
- Marvalene Hughes Memorial
- International Students
- Ann and David Johns
- M. Lorin Kemp Memorial–ROTC
- Kiwanis Club
- William and Edna LaSalle Memorial
- Gaelen Leffler Memorial
- Lipinsky Family
- Maxey Family
- Maxey/Point Loma
- Arthur Tennes Moe Memorial
- Magdalena Mora
- 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 Pellettiri Memorial
- Phi Alpha Alpha Sorority
- Carolin Pittman Memorial
- Foster S. Post Memorial
- President's Scholarship
- Procter and Gamble
- John F. Reeves Memorial
- Residence Hall Association
- Herman Roemmich 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
- Undergraduate Deans
- Westervelt Memorial
- D.B. Williams Memorial
- Peggy Wolter Memorial
- Young Black Scholar Fund
- Mr. and Mrs. John Zweck Memorial

# Special Programs and Services

## Academic Computing Technologies

Academic Computing Technologies provides the VAX 6320 (UCSVAX running VMS with 7 MIPS of CPU processing and 128 MB of memory) and a Sun SPARC Server 10 (UCSSUN1 running UNIX with 500 MIPS of CPU processing and 512 MB of memory) for academic computing. A CRAY C98/8128 Supercomputer located at the San Diego Supercomputer Center is available for assigned coursework and research projects. All of these computers are available to the campus community via terminals or microcomputers over SDSUNET; a high speed communications network based on FDDI and Ethernet technology. The California State University Network (CSUNET) links the campus to additional central computers and to specialty computing centers on other campuses.

This computing environment provides access to hundreds of software products including programming languages. UCSVAX has ARC/INFO, BASIC, BMDP, C, COBOL, DISSPLA, EDT/EVE text editors, FORTRAN, IMSL, MAIL (email), MENUGRAPH, MINITAB, ORACLE, PASCAL, SAS, SPICE, SPSS, and VAXNOTES installed. UCSSUN1 has C, C++, COMMON LISP, FORTRAN, GOPHER, LATEX, MAIL/ELM (EMAIL), MATLAB, MATHEMATICA, PICO/VI/EMACS (text editors), PASCAL, TEX, TIN (Usenet newsreader) and X-WINDOWS installed.

## 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 Report*.

For further information, phone the Alumni Office at (619) 594-2586.

## 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 and alumni. 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 594-6487.

**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 and Ralph's Hair Place. 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 and staff 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, 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 is committed to providing loving child care 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, 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. 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 service, SDSU items, and a selection of over 45,000 general interest books.

A large selection of art supplies may be found at Art Etc. which is located in the old Art Building. The Copy Center provides Xerox copying, poster making, fax service, binding and typewriter rentals. 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 East Commons, West Commons, Taco Bell, The General Store, Aunt Mary's, Courtyard Cafe, Betty's Hotdogger, Sub Connection, the Faculty/Staff Centre, Rice King, Kentucky Fried Chicken, DJ's Deli, Monty's Market, Baskin Robbins Ice Cream Shop, and Catering. East Commons 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 card plan. Plans are good at East Commons, 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, Copy Center, Monty's Market and all Aztec Shops Food Service restaurants.

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 East Commons.

## 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 direct the activities of the Institute.

Every year the June Burnett Institute provides minigrants to SDSU faculty to support creative, community-focused service, education, and research. These awards enable faculty to work with community agencies and creatively blend service, training, and evaluation.

The Institute also sponsors a discussion series which highlights the progress of these awards. The Urban Community Services program blends many smaller projects to serve the needs of children, youth, and parents in the broader San Diego community.

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, (619) 594-4756.

## 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 Site Center serves children six months through five years of age, who are in good health. The year round program serves children two to five 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 in the Campus Site (academic year) Program 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 Site Preschool 7:30 a.m. to 6:00 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, Montezuma Site 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. Audiologic 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, 5814 Hardy Avenue, (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 a specific on-campus residence 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 director provides 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. A viewing room with high quality computer and video projection is available.

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

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 through the Navy.

**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 final two years of undergraduate or final year of graduate study. The scholarship leads to a position as an instructor, research or operating engineer for the Navy, and a commission as a naval officer.

**Health Professional Scholarship Programs.** For students applying to medical school, a scholarship is available which will cover the cost of tuition and books and provide a monthly stipend while in medical school. Initial requirements are application to an AMA/AOA-accredited medical school and competitive grade point average and MCAT scores.

**Baccalaureate Degree Completion Program.** Students who qualify can earn up to $1,200 dollars a month while in school – no uniforms or drill required. Scholarships are available to juniors and seniors in all majors who have a 3.0 GPA. Positions in aviation, surface warfare, business/personnel management and information systems are offered after graduation.

**Medical Service Corps.** 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 or doctorate degree.

Financial support is also available through special programs in the following areas: physical therapy (masters), physicians assistant, pharmacist training, optometry school, industrial hygiene, and dieticians.





**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. Parking for visitors to the Imperial Valley Campus, 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 cooperative 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 this 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 this program should meet with undergraduate advisers in their major departments and prepare a program 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 postmodernism. 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 the College of Arts and Letters in cooperation with 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 Assistant Dean's office, College of Arts and Letters, NH-235.

## University Library

### Administration

University Librarian: Bosseau

Associate University Librarians: Goodram, Kinney, Palsson

### 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: Chan, Coleman, Dintrone, Fikes, Harkanyi

Associate Librarians: Baber, Carande, Cargille, Fields, Goyne, Muroi, Perkins, Rogers, Turhollow, White, Wilson

Senior Assistant Librarians: Friedman, Harley, Marlatt, McPhail, 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. Students and faculty have access to more than 15 electronic bibliographic and statistical databases; and on-line access to Lexis/Nexis, Eureka, UnCover, and Melvyl. 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 1,075,909 volumes (monographs and bound periodicals); 575,728 government documents; 3.4 million microforms; 62,102 reels of microfilm; 169,029 maps; 5,280 phonograph records; and 4,680 linear feet of archival papers. The Library receives 6,424 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 year. 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: Ann M. Johns
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

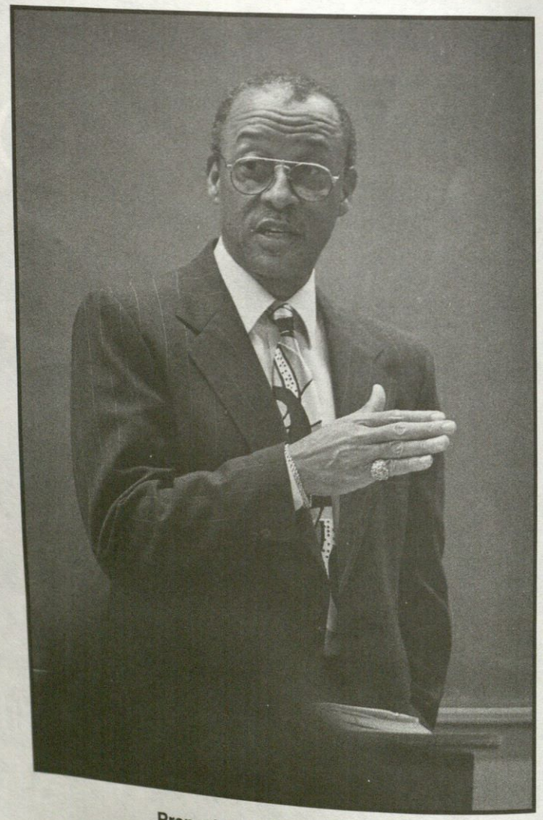
Anthropology (M.A.), Asian Studies (M.A.), Creative Writing (M.F.A.), Economics (M.A.), English (M.A.), French (M.A.), Geography (M.A.), History (M.A.), Latin American Studies (M.A.), Latin American Studies (M.B.A./M.S.; jointly with the College of Business Administration), Liberal Arts (M.A.), Linguistics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

### 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), 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.).

### 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 of 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 594-5003, 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. It cooperates closely with the National Weather Service (NWS) through the mutual exchange of information. The station receives surface, upper-air, and forecast weather maps via satellite from the NWS. 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 thirty 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**

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 training into accounting, finance, information systems, management, and marketing curricula and which provide business training for foreign language and international studies faculty and advanced degree candidates; (2) intensive language programs which are designed to develop or enhance international skills, awareness, and expertise; (3) collaborative programs, activities, and research of the business community that develop international skills, awareness, and expertise among current and prospective members of the business community; (4) research designed to strengthen and improve the international aspects of business education and to promote integrated curricula and the international competitiveness of American businesses, including those not currently active in international trade.

The Center operates under the jurisdiction of the College of Arts and Letters and the College of Business Administration and is located in Business Administration 428, 594-6023.

### International Population Center

**John R. Weeks, Director**

The International Population Center (InterPop) promotes the implementation of effective population policy through the conduct and application of population research, the graduate training of potential population researchers and administrators, and the provision of technical assistance to population-related agencies and organizations. The activities of InterPop focus geographically on Africa, the Middle East, and Mexico, but one of the goals of the Center is to relate country or regional demographics to global population issues, trends, and activities.

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.

### 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 offers, through IISCOR, a multidisciplinary program, "International Security and Conflict Resolution," under the major in Liberal Studies–Emphasis in Three Departments. Students and faculty can obtain more information 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 Colleges 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 and has a collection of Latin American materials which is available, Storm Hall, room 146.

### 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
**Roger S. Frantz, Director**

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.

*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 assistantships, undergraduate internships, and research assistant 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: Thomas M.D. Warschauer
Associate Dean and Director of Undergraduate Program: Robert W. Wilbur
Associate Dean, Community Economic Development: Harold K. Brown
Director of Development: Chris A. Audette
Assistant Dean for Student Affairs: Patricia N. L. Dintrone

## 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.), Production and 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)
**Alex F. DeNoble and Sanford B. Ehrlich, Co-Directors**
**Patience G. Woodill, Coordinator**

The Entrepreneurial Management Center (EMC) is a privately funded activity of the College of Business Administration. It is guided by a Board of Governors made up of community business leaders.

The purpose of the EMC is to encourage and promote the concepts of entrepreneurship and entrepreneurial management both in the University and in the community. Its principal objectives are to (1) plan, design, and staff courses in entrepreneurship; (2) assist students and faculty in entrepreneur-related projects and research studies; (3) involve faculty in a variety of community activities and projects that encourage and assist emerging growth firms.

The EMC sponsors an annual North American Invitational Business Plan Competition which awards students for excellence in venture capital or seed business planning and includes entries from colleges throughout North America.

Each semester the EMC sponsors an Entrepreneur-in-Residence, an individual selected from the business community for his entrepreneurial experience. This person devotes 20 hours in interaction with students and faculty–in classes, seminars, and informal exchange.

The EMC also offers a series of seminars, "The Entrepreneur's Toolkit," to help local entrepreneurs expand their businesses. For more information, call 594-2781.

### 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**

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 training into accounting, finance, information systems, management, and marketing curricula and which provide business training for foreign language and international

studies faculty and advanced degree candidates; (2) intensive language programs which are designed to develop or enhance international skills, awareness, and expertise; (3) collaborative programs, activities, and research of the business community that develop international skills, awareness, and expertise among current and prospective members of the business community; (4) research designed to strengthen and improve the international aspects of business education and to promote integrated curricula and the international competitiveness of American businesses, including those not currently active in international trade.

The Center operates under the jurisdiction of the College of Arts and Letters and the College of Business Administration and is located in Business Administration 428, 594-6023.

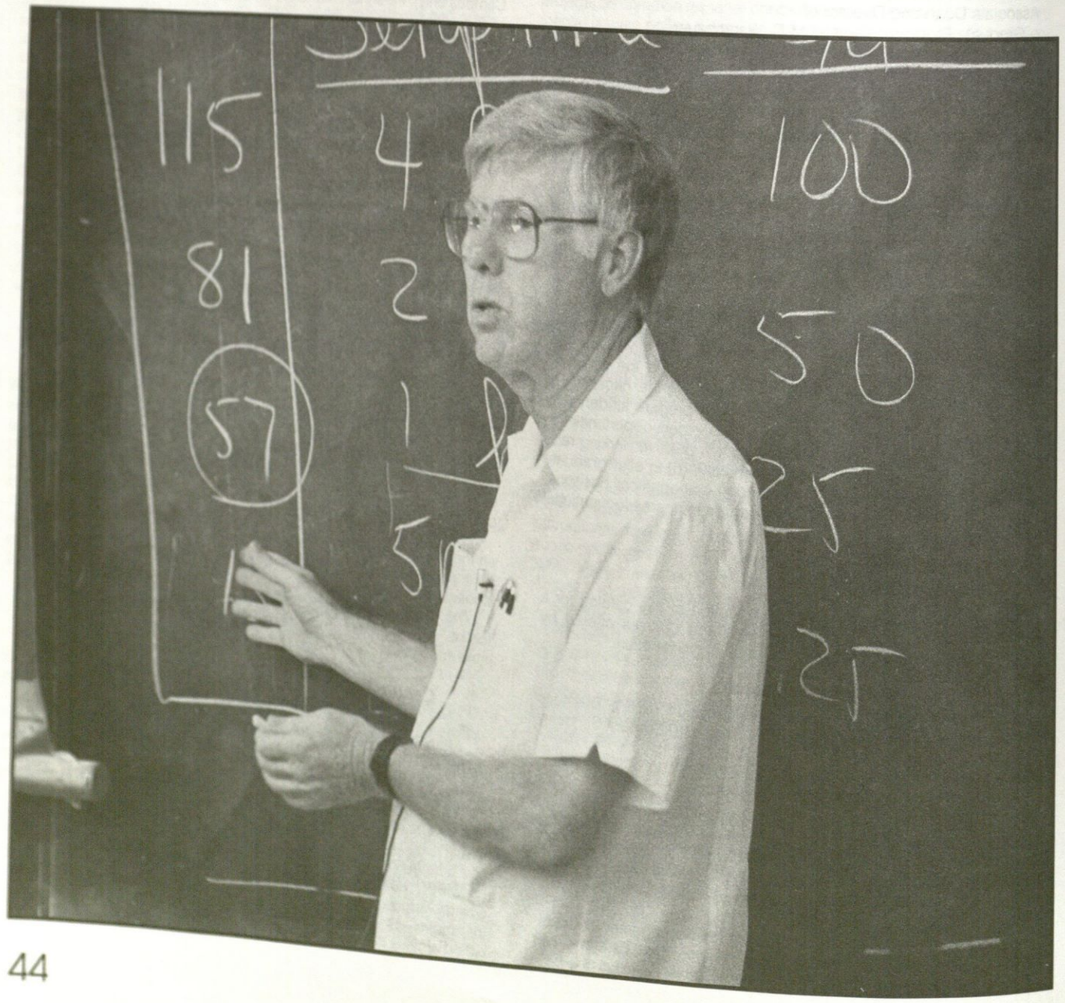
### Real Estate and Land Use Institute (RELUI)

Established in 1983, the Real Estate and Land Use Institute (RELUI) is the first systemwide research-oriented institute of its kind in the 20-campus California State University system. One of the two statewide offices is located in the College of Business Administration.

As it relates to real estate and land use, the purpose of RELUI is 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) seek 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.





# College of Education

## 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

## 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

### Teaching and Service Credentials

| Credential Program | School Service Authorized |
|---|---|
| 1. Multiple Subject | Teach in any self-contained classroom, kindergarten through twelfth grade. |
| 2. Multiple Subject Bilingual Cross-Cultural Language and Academic Development (BCLAD) | Teach primary language, English and ESL. |
| 3. Multiple Subject with a Cross-Cultural Language and Academic Development (CLAD) | Teach in specially designed academic instruction in English and ESL. |
| 4. Single Subject | Teach single subject area in grades kindergarten through twelve. |

**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

### Certificate Programs

Bilingual (Spanish) Special Education, Instructional Software Design, Instructional Technology, Language Development Specialist, Rehabilitation Administration, Teaching the Emotionally Disturbed/Behaviorally Disordered.

## Research Centers and Institutes

### Counseling and School Psychology

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 the California Council on Economic Education and the Joint 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, school, 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. Pumpian, Co-Directors**

The Institute coordinates and supports training and research activities in the fields of vocational rehabilitation and special education. The Institute operates within the College of Education and works directly with faculty and students interested in this area. The Institute administers projects funded by local, state, federal, and private agencies. The Institute's facilities are located at 5850 Hardy Avenue, Suite 112.

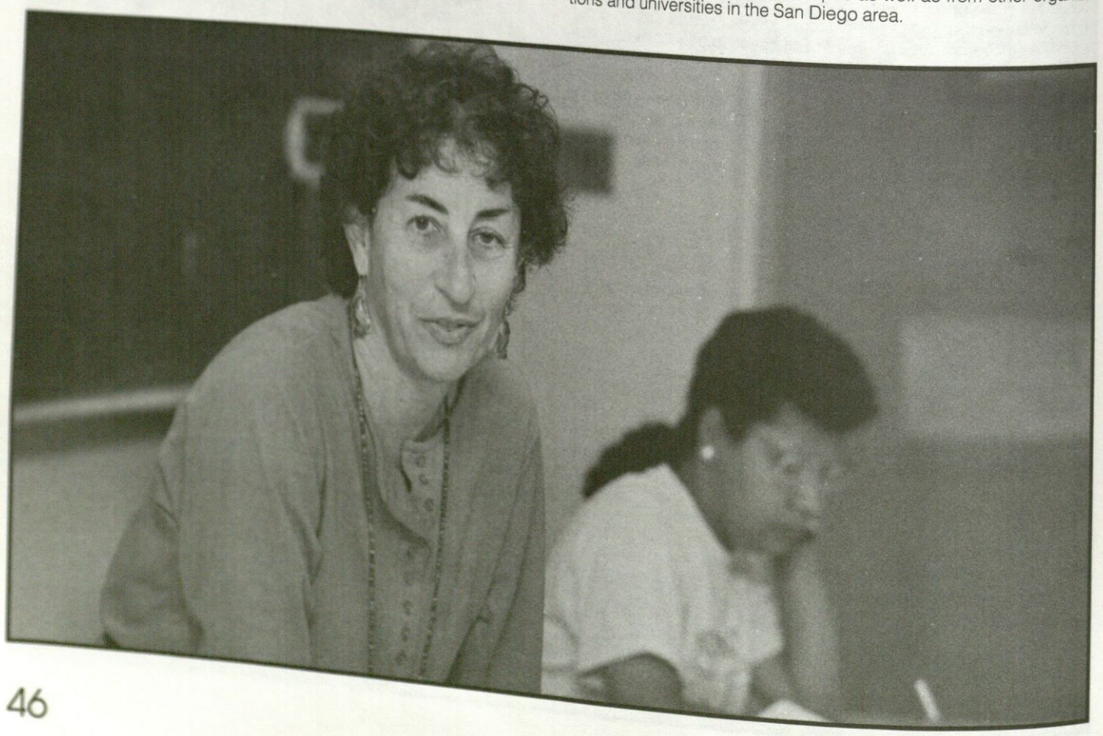
### Center for Policy Studies in Education
**Alberto M. Ochoa, Director**

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, the Multifunctional Resource Center, 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 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

### 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
**George A. Mansfield, Jr., 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 and the College of Professional Studies and Fine Arts, Mechanical Engineering faculty and students apply CIM concepts in more than 20 courses and 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 (Acting): Olita D. Harris
Associate Dean (Acting): Steven J. Kramer
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, Health Services*, Pupil Personnel Services Credential (School of Social Work), Special Education Specialist for the Communication Handicapped.

* No new students being admitted at this time.

## 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 minority aging data nationally.

### Center for Behavioral and Community Health Studies
**John P. Elder and Alan J. Litrownik**
**Co-Directors**

The Center for Behavioral and Community Health Studies (6363 Alvarado Court) 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. Co-directors report to the deans of both the College of Health and Human Services and the College of Sciences. Current projects involve collaboration between scientists and physicians from a variety of specialities as well as a variety of other institutions. 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 to participate in community interventions.

### Communications Clinic for Speech, Language, and Hearing Disorders
**Robert E. Novak, Director**

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. Audiologic 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
**Steven J. Kramer, Director**
**Charlotte Lopes Coordinator**

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.

### Human Service Institute of Southern California
**David P. Stoesz, Director**

Administered through the School of Social Work, the mission of this Institute is to examine human service issues so that leaders of the public and private sectors can develop policies and programs that better meet the needs of the people of Southern California. Involving analyses of current social problems and the preparation of solutions and alternatives, studies are conducted by experts and recommendations are subsequently disseminated to elected officials, special commissions and task forces, business executives, community leaders, and administrators of major institutions of the region, via professional monographs, newspaper editorials, news conferences and interviews with the electronic media. Involving approximately twenty scholars who lend their expertise to the analysis of regional human service problems, projects of the Institute focus on issues relating to aging, health, mental health, and children/youth/family needs. For information, call (619) 594-6508.

### 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
**Kim Yeager, 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, the Neighborhood House Head Start Substance Abuse Training Project, providing substance abuse training to staff and families, 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 and the Child Welfare Substance Abuse Training Project. 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.

# College of Professional Studies and Fine Arts

## Administration

Dean: Joyce M. Gattas
Associate Dean: Hayes L. Anderson
Assistant Dean for Academic Affairs:
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 14 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, drama, family studies and consumer sciences, industrial technology, journalism, music, physical education, public administration and urban studies, recreation, speech communication, and telecommunications and film. Three ROTC programs (Air Force, Army, and Navy), which lead to commissioned officer status upon graduation, are also offered. Three research centers housed in the College provide students with opportunities for firsthand experience. They are the International Center for Communications, the Institute of Public and Urban Affairs, and the Institute for Leisure Behavior.

The college is uniquely positioned because of its dedication to and appreciation of traditional and non-traditional forms of scholarship and research. The college serves as a catalyst of creative and artistic excellence, and it maintains a strong relationship to the community through its programs in the fine and performing arts, communication, and public affairs. Additional community ties are fostered through internships that enhance the professional development of students and programs that focus on human performance.

## 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.), Industrial Technology (B.S.), 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.)

* No new students being admitted at this time.

### Minors

Aerospace Studies, Art, Art History, Child Development, Dance, Drama, Industrial Technology, 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 offers, through IISCOR, a multidisciplinary program, "International Security and Conflict Resolution," under the major in Liberal Studies–Emphasis in Three Departments. 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 wit 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 city of Santee contracts with the Institute for a nonfee-based program at school sites for children 6 to 16. And the Spring Valley Park and Recreation District (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.

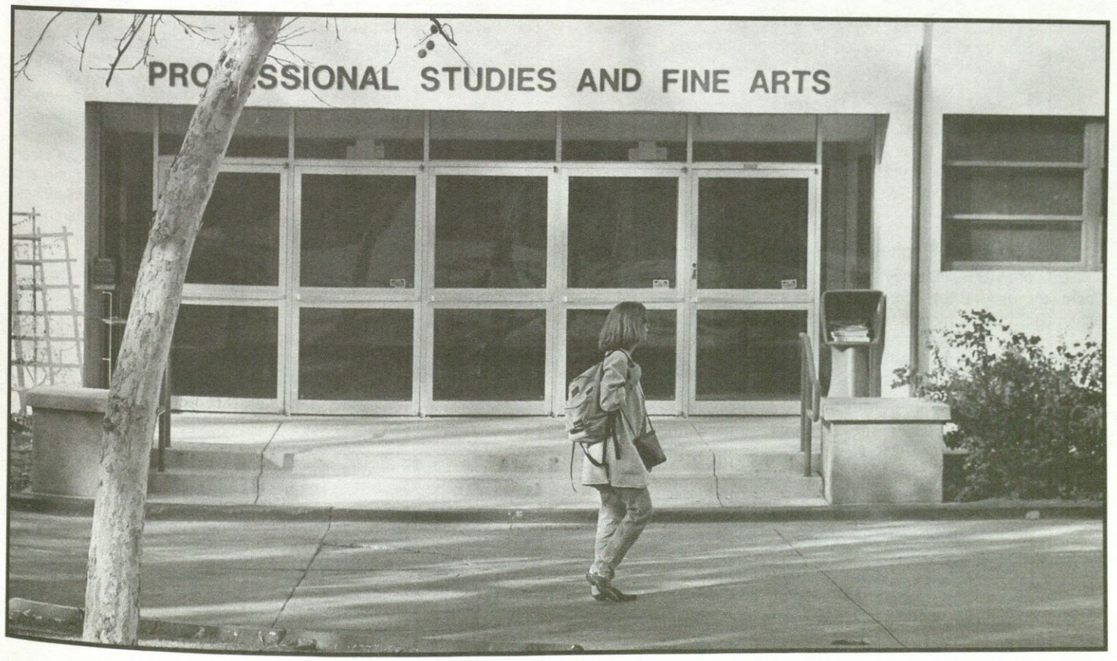
The Institute continues to publish monographs focusing on important issues relative to leisure services delivery. These are available to the public, as well as park and recreation practitioners. Research projects under the direction of the Institute focus on local, state, national, and international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

### 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 Department, 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 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

## General Information

The College of Sciences, composed of eight 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, about 5,000 acres in three separate biological sciences research stations, and a marine research laboratory managed jointly with Sea World Research Institute. 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.).

### 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, Predental, Premedical, Preveterinary.

## 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

**John P. Elder, Alan J. Litrownik, and Chris Y. Lovato, Co-Directors**

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

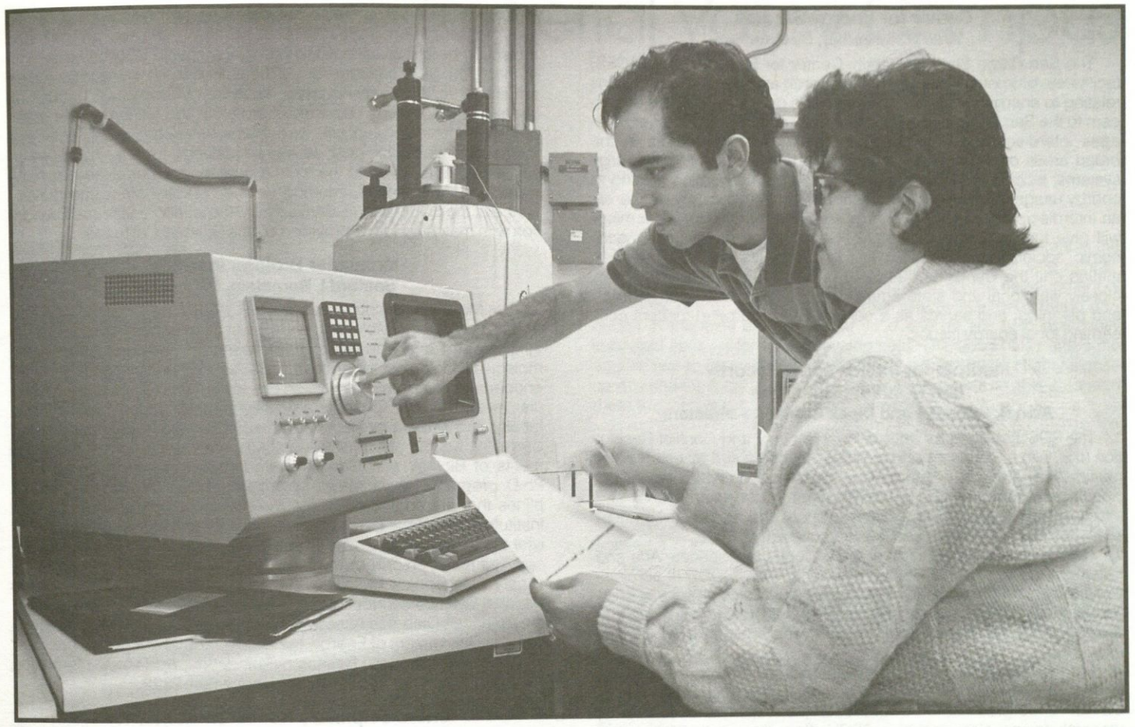
**Paul H. Zedler, Director**

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, 3800 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 one of the best opportunities for study of stream and riparian systems in southern California.

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 post-fire ages are available for study.

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 Effective Organizations

**Robert Penn, Director**

The Center for Effective Organizations was established to conduct applied research and development studies having the primary goal of improving human performance in public and private sector organizations. It focuses on the processes and strategies that enhance productivity and organizational effectiveness. In this context, organizational failures as well as successes are studied.

The Center also conducts evaluations of existing and planned programs and interventions designed to improve organizational performance.

The Center organizes symposia and conferences aimed at apprising the industrial, business, and governmental communities of the most recent developments pertinent to its mission.

Graduate students are afforded opportunities to participate in the research efforts as well as to gain important experiences that should be career enhancing. Additional information is available by calling 594-4480.

### 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. 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 area. 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.

### 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 offers, through IISCOR, a multidisciplinary program, "International Security and Conflict Resolution," under the major in Liberal Studies–Emphasis in Three Departments. 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 594-2822.

### 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.



# Imperial Valley Campus

## 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: Emma Arguelles Odegard

## Faculty

Emeritus: Baldwin, Erzen, Franklin, Harmon, J., King, Lovely, Rodney, Smith, Spencer, Varela-Ibarra, Wilson
Professors: Ayala, Balch, P.M., Dunn, Ryan, Simon
Associate Professors: Polich, Reyes, Sabath, Stampfl
Assistant Professors: Castañeda, Garrison, Hill, R., Neumann, Robinett, Rosas Reed, Shumaker
Lecturers: Anderholt, Balch, P.E., Bowen, Briggs, Carpenter, Carrasco, Derakhshan, Elizondo, Fuentes, Gonzalez, Horne, Jacklich, Jones, Livingston, Murphy, Murray, Nunn, Palese, Parker, Rousseau, Sameulson, Shaver, Sherlock, Shinn, Stamon
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 with a low student/faculty ratio, the Imperial Valley Campus offers students the advantages of small classes and individual contact with the faculty. Instructional television (ITFS) provides students in Calexico the opportunity to participate in some classes broadcast live from the main 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.

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 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 (Bilingual Cross-Cultural Language and Academic Development (BCLAD), Multiple Subject with a Cross-Cultural, Language and Academic Development (CLAD), 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

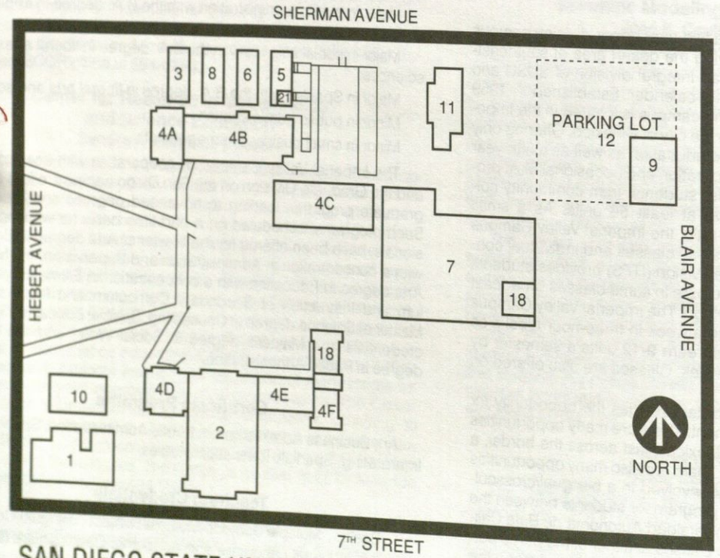
The campus is located on an eight-acre city block in the heart of Calexico's Civic Center, across from Rockwood Plaza. Originally, this was the site of Calexico's first high school, and some of the campus buildings, including Rodney Auditorium, are part of the original school structures. In 1980 the Legislature approved funding to construct a new classroom building and a library 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 50,000 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 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, administration, student services, faculty office, and shop buildings complete the facilities on the campus.

Plans call for new buildings and renovation of existing facilities for fall 1995.




SAN DIEGO STATE UNIVERSITY
IMPERIAL VALLEY CAMPUS
CALEXICO. CALIFORNIA

BUILDING LEGEND

1. ADMINISTRATION/ BUSINESS OFFICE
2. AUDITORIUM
3. BOOKSTORE
4. CLASSROOMS
   - 4A N-101
   - 4B N-102, 106, 108
   - 4C C-8, 9, 10
   - 4D A-3
   - 4E LA-3, LA-4
   - 4F LA-1
5. FACULTY OFFICES – EAST
6. FACULTY OFFICES – WEST
7. LIBRARY
8. INSTRUCTIONAL SERVICES
9. SHIPPING/RECEIVING/ SHOPS
10. STUDENT AFFAIRS
11. STUDENT UNION
12. PARKING LOT
18. COMPUTER LAB
21. FACULTY/STUDENT MENTOR PROGRAM

## 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) 357-5517 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 1993-94 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

# 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.

Students may apply by contacting the Division of Undergraduate Studies (AD-223) at entrance, or during the first year at college. 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.

### 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 Quebec 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 Francaises 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), Universitá 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 300, Long Beach, California 90802-4275. Applications for the 1995-96 academic year overseas must be submitted by February 1, 1995.





## 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**

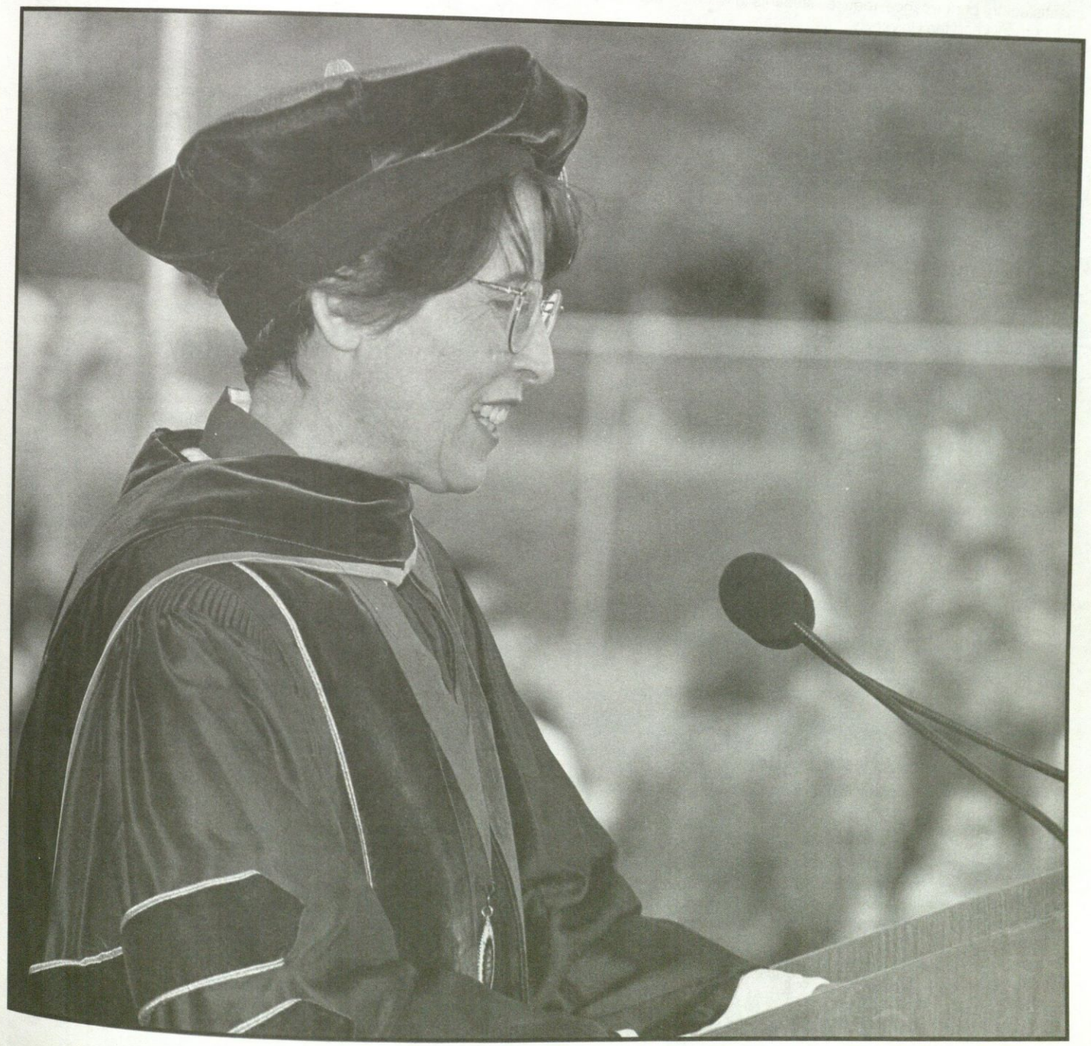
*(Subject to be designated by Overseas Resident Director, International Programs)* (1-6) I, II

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

### Master of Arts

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

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

### Master of Science

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

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

### 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.

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:

(a) 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.)

(b) Have completed an undergraduate major appropriate to the field in which the prospective student desires to earn an advanced degree.

(c) Satisfy the special departmental or college requirements as stated in Part Three of the *Graduate Bulletin* under "Fields of Study and Courses of Instruction."

(d) 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, predental 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.

### Predental Curriculum

The predental 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. **Predental students should confer with the predental 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 predental students should apply for the Health Careers Opportunity Program (HCOP) in Life Sciences, Room 204.**

**Science requirements.** Regardless of the major, predental 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 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.** Predental 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 1990 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 predental students should establish a personal file in Life Sciences, Room 204; 594-6638.**

### Prelegal Curriculum

The prelegal program is pursued in conjunction with a degree program. There is no specific prelaw program leading to a bachelor's degree. Students interested in the legal profession should consult with the University prelaw 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 prelegal 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 prelegal 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 prelaw adviser. Through this office, prelegal students receive information and advice concerning law school application and admission procedures. Guidance in undergraduate preparation for law study is also available. The University prelaw 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 fall each year. Reservations for this examination **must** be made at least one month in advance of the scheduled date; reservation blanks 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%)
   e. Written essay at time of the interview (0%-15%)

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, and podiatric medicine. San Diego State University does not offer specific degree programs in these fields. Physical therapy advising is in the Physical Education Department, PE 331; telephone 594-5161 (Dr. Richard W. Wells).

**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, 336L, 350, 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. Prephysical 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 336L; Chemistry 200 and 201; Computer Science 101, Physics 180A, 180B and 182A, 182B; and Psychology 101, 270, and 350. Information regarding the required courses for specific physical therapy schools is available through the athletic training major adviser. 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 athletic training adviser. 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

# 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

A 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/notetaking 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 and TOEFL, GMAT, and GRE preparation. 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; GMAT, GRE and TOEFL preparation; 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 I-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).

These programs are planned and instructed by senior adults who are interested in furthering lifelong learning.

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.

Under the arm of International Training Center, the International Enterprise Forum (IEF) was conceived by business leaders who understand the significant role universities must play if U.S. industry is to remain current and competitive. Building upon the strengths of the University's international business students and faculty, the IEF offers the San Diego community:

- Forums, workshops, and individualized training in exporting, franchising, investing, and other international business opportunities.
- Business exchanges matching individual business leaders with potential partners, distributors, suppliers.
- Data banks and computer networks to link San Diegans with worldwide trade and investment leads.

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 I, 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. Failure to file complete, accurate, and authentic application documents may result in denial of admission, cancellation of academic credit, suspension, or expulsion (Section 41301, Article 1.1, Title 5, *California Code of Regulations*). 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 Title 5, *California Code of Regulations*, Section 41201. 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 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 in CSU. 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 changes in the character 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, 5300 Campanile Drive, San Diego, CA 92182-0567. 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, Journalism, Nursing, Public Administration, 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.

It is unlikely that San Diego State University will receive more applications from freshmen, lower division or upper division transfer applicants in the initial filing period than can be accommodated. If applications do exceed campus quotas, supplementary criteria will include completion of college preparatory courses in English and mathematics for freshmen applicants, and completion of lower division general education courses for transfer applicants.

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 1994-95 | Applications First Accepted | Student Notification Begins |
|---|---|---|
| Fall Semester 1994 | November 1, 1993 | February 1994 |
| Spring Semester 1995 | August 1, 1994 | September 1994 |

### 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 of your application from San Diego State University no later than nine weeks after filing the application. The acknowledgment will include a request for documents needed to determine your admission eligibility. Admission 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). 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. 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 2800 using the SAT 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 3402 (SAT) or 842 (ACT).

Applicants with grade point averages of 3.0 or above (3.61 for nonresidents) are exempt from the test requirement. However, you are urged to take the SAT 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 qualifiable 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.

**Eligibility Index Table for California High School Graduates or Residents of California — Effective Fall 1988**

| GPA | ACT Score | SAT Score | GPA | ACT Score | SAT Score | GPA | ACT Score | SAT Score |
|---|---|---|---|---|---|---|---|---|
| (—)[1] | | | 2.66 | 17 | 680 | 2.32 | 23 | 950 |
| 2.99 | 10 | 410 | 2.65 | 17 | 680 | 2.31 | 24 | 960 |
| 2.98 | 10 | 420 | 2.64 | 17 | 690 | 2.30 | 24 | 960 |
| 2.97 | 10 | 430 | 2.63 | 17 | 700 | 2.29 | 24 | 970 |
| 2.96 | 11 | 440 | 2.62 | 17 | 710 | 2.28 | 24 | 980 |
| 2.95 | 11 | 440 | 2.61 | 18 | 720 | 2.27 | 24 | 990 |
| 2.94 | 11 | 450 | 2.60 | 18 | 720 | 2.26 | 25 | 1000 |
| 2.93 | 11 | 460 | 2.59 | 18 | 730 | 2.25 | 25 | 1000 |
| 2.92 | 11 | 470 | 2.58 | 18 | 740 | 2.24 | 25 | 1010 |
| 2.91 | 12 | 480 | 2.57 | 18 | 750 | 2.23 | 25 | 1020 |
| 2.90 | 12 | 480 | 2.56 | 19 | 760 | 2.22 | 25 | 1030 |
| 2.89 | 12 | 490 | 2.55 | 19 | 760 | 2.21 | 26 | 1040 |
| 2.88 | 12 | 500 | 2.54 | 19 | 770 | 2.20 | 26 | 1040 |
| 2.87 | 12 | 510 | 2.53 | 19 | 780 | 2.19 | 26 | 1050 |
| 2.86 | 13 | 520 | 2.52 | 19 | 790 | 2.18 | 26 | 1060 |
| 2.85 | 13 | 520 | 2.51 | 20 | 800 | 2.17 | 26 | 1070 |
| 2.84 | 13 | 530 | 2.50 | 20 | 800 | 2.16 | 27 | 1080 |
| 2.83 | 13 | 540 | 2.49 | 20 | 810 | 2.15 | 27 | 1080 |
| 2.82 | 13 | 550 | 2.48 | 20 | 820 | 2.14 | 27 | 1090 |
| 2.81 | 14 | 560 | 2.47 | 20 | 830 | 2.13 | 27 | 1100 |
| 2.80 | 14 | 560 | 2.46 | 21 | 840 | 2.12 | 27 | 1110 |
| 2.79 | 14 | 570 | 2.45 | 21 | 840 | 2.11 | 28 | 1120 |
| 2.78 | 14 | 580 | 2.44 | 21 | 850 | 2.10 | 28 | 1120 |
| 2.77 | 14 | 590 | 2.43 | 21 | 860 | 2.09 | 28 | 1130 |
| 2.76 | 15 | 600 | 2.42 | 21 | 870 | 2.08 | 28 | 1140 |
| 2.75 | 15 | 600 | 2.41 | 22 | 880 | 2.07 | 28 | 1150 |
| 2.74 | 15 | 610 | 2.40 | 22 | 880 | 2.06 | 29 | 1160 |
| 2.73 | 15 | 620 | 2.39 | 22 | 890 | 2.05 | 29 | 1160 |
| 2.72 | 15 | 630 | 2.38 | 22 | 900 | 2.04 | 29 | 1170 |
| 2.71 | 16 | 640 | 2.37 | 22 | 910 | 2.03 | 29 | 1180 |
| 2.70 | 16 | 640 | 2.36 | 23 | 920 | 2.02 | 29 | 1190 |
| 2.69 | 16 | 650 | 2.35 | 23 | 920 | 2.01 | 30 | 1200 |
| 2.68 | 16 | 660 | 2.34 | 23 | 930 | 2.00 | 30 | 1200 |
| 2.67 | 16 | 670 | 2.33 | 23 | 940 | (—)[2] | | |

1 Above 3.00 qualifies with any score.
2 Below 2.00 does not qualify for regular admission.

If you have completed at least 15 college preparatory units, you may offset a one-unit shortage in one subject area by completing an extra unit in another subject area. This option is available through spring semester 1995. Although you will be granted regular admission under this option, you are strongly advised to complete all courses in the college preparatory pattern, especially mathematics and English, so that you will be adequately prepared to begin your university studies. Please see your high school counselor for further information.

**Subject Requirement Substitution for Students with Disabilities.** Disabled student applicants are strongly encouraged to complete college preparatory course requirements if at all possible. If an applicant is judged unable to fulfill a specific course requirement because of his or her disability, alternative college preparatory courses may be substituted for specific subject requirements. Students who are deaf and hearing impaired, have learning disabilities, or are blind and visually impaired, may in certain circumstances qualify for substitutions for the foreign language, mathematics, and laboratory science subject requirements. Substitutions may be authorized on an individual basis after review and recommendation by the applicant's academic adviser or guidance counselor in consultation with the director of a CSU disabled student services program. Although the distribution may be slightly different from the course pattern required of other students, students qualifying for substitutions will still be held for 15 units of college preparatory study. Students should be aware that course substitutions may limit later enrollment in certain majors, particularly those involving mathematics. For further information and substitution forms, please call the director of disabled student services at 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.

### 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 semester (84 quarter) units and have made up any missing subject requirements (*See* "Making Up Missing College Preparatory Subjects" section). Nonresidents must have a 2.4 grade point average or better.

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) 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)
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 a student for exemption from the English Placement Test.
- A score of 470 or above on the Verbal section of The College Board Scholastic Aptitude Test (SAT-Verbal).
- A score of 22 or above on the ACT English Usage Test 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*.
- Completion of an acceptable college transfer course in English composition of four quarter or three semester units with a grade of C or better.

**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 Scholastic Aptitude Test (SAT-Math).
- A score of 24 or above on the American College Test (ACT) Mathematics Test (Taken prior to October 1989).
- A score of 25 or above on the ACT Mathematics Test (Taken October 1989 and later).
- A score of 560 or above on the College Board Mathematics Achievement Test, Level 1 or Level 2.
- 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 third 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.

### 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 general 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 general requirements, you are eligible for admission as a postbaccalaureate unclassified student. Some departments may restrict enrollment of unclassified students because of 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, journalism, nursing, public administration, 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.

Priority in admission is given to residents of California. There is little likelihood of nonresident applicants, including international students, being admitted to programs with limited openings.

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.

**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.

Health insurance coverage is mandatory for international (foreign) students. Acceptable health insurance is available on campus at approximately $350 per year.

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 University bookstore 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 class has been added prior to the first day of classes.**

Late register 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 class they want 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 Admissions and Records Office 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 *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 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, the unmarried minor (a person under 18 years of age) derives legal residence from the parent with whom the minor maintains or last maintained his or her place of abode. The residence of a minor cannot be changed by the minor or the appointment of a guardian for the minor, so long as the minor's parents are living.





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
Africana Studies
American Indian Studies
American Studies
Anthropology
Asian Studies
Classics and Humanities
Comparative Literature
Economics
English
European Studies
French and Italian
Geography
German and Russian
History
International Business
Judaic Studies
Latin American Studies
Linguistics and Oriental Languages
Mexican American Studies
Philosophy
Political Science
Religious Studies
Russian and East European Studies
Social Science
Sociology
Spanish and Portuguese
Urban Studies
Women's Studies

### College of Business Administration Business Advising Center (Business Administration, Room 448)

Accounting
Finance
Financial Services
Information Systems
Management
Marketing
Production and Operations Management
Real Estate

**College of Education/Center for Careers in Education (Education, Room 100)**

- Bilingual Education
- Counseling
- Educational Administration
- Educational Technology
- Elementary Teaching
- Marriage, Family, and Child Counseling
- Multicultural Education
- Ph.D. in Education
- Reading
- Rehabilitation Counseling
- School Counseling
- School Psychology
- Secondary Teaching
- Special Education

**College of Engineering Advising Center (College of Engineering, Room 426B)**

- Aerospace Engineering
- Civil Engineering
- Electrical Engineering
- Mechanical Engineering

**College of Health and Human Services Advising Center (Hepner Hall, Room 124)**

- Communicative Disorders
- Community Health Education
- Gerontology
- Nursing
- Public Health
- Social Work

**College of Professional Studies and Fine Arts (Professional Studies and Fine Arts, Room 212)**

- Aerospace Studies
- Art
- Dance
- Drama
- Family Studies and Consumer Sciences (Child Development)
- Industrial Technology
- Journalism
- Military Science
- Music
- Naval Science
- Nutrition
- Physical Education
- Public Administration and Urban Studies
- Recreation, Parks and Tourism
- Speech Communication
- Telecommunications and Film
- Urban Studies

**College of Sciences Advising Center (Life Sciences, Room 105)**

- Astronomy
- Biology
- Chemistry
- Computer Science
- Environmental Health
- Geological Sciences
- Mathematical Sciences
- Microbiology
- Physical Science
- Physics
- Psychology

For preprofessional programs see second below.

**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 4:00 p.m., Monday through Friday, except that it is open until 6:00 p.m. on Mondays in the fall and spring semesters.

**Imperial Valley Campus Advising**

It is recommended that Imperial Valley Campus students see an adviser prior to registration each semester. Students working towards a degree with a major in Liberal Studies should make an appointment with Chavela Aguilar, 357-5506, or counselor, Kathy Russum, Director of Academic Services, 357-5509. For information regarding the California Teaching Credential program students should also make an appointment with Kathy Russum. Students majoring in areas other than Liberal Studies should make an appointment with Cynthia Flores, Assistant Dean for Student Affairs, 357-5502.

**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:

| | |
|---|---|
| Predentistry | Life Sciences, Room 204 |
| Preeducation | University Advising Center, Student Services Building, Room 1641 |
| Prelaw* | Nasatir Hall, Room 131 |
| Premedicine | Life Sciences, Room 204 |
| Prephysical Therapy | Physical Education, Room 331 |
| Preveterinary 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 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

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.

**Handicap**

The California State University does not discriminate on the basis of handicap in admission or access to, or treatment or employment in, its programs and activities. Section 504 of the Rehabilitation Act of 1973, as amended, and the regulations adopted thereunder prohibit such discrimination. The Office of Student Affairs has been designated to coordinate the efforts of San Diego State University to comply with the Act in its 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, equal opportunities for men and women CSU students in campus programs, including intercollegiate athletics, 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, 50 UN Plaza, Room 239, San Francisco, California 94102.

## 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 only 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 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 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 the CSU English Equivalency Examination, 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<br>Sub-areas: | 46-life science<br>47-physical science | 6 units | 3 units in life science<br>3 units in physical science |
| Social Science | 500<br>Sub-areas: | 48-social science<br>44-history | 6 units | 3 units in social science<br>3 units in history |
| Humanities | 500<br>Sub-areas: | 45-literature<br>48-fine arts | 6 units | 3 units in literature<br>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 | 48 | 3 units | MATH 121 | Yes |
| Statistics (Last offered 1984-1985) | 49 | 3 units | MATH 119 | 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: | | | | |
| Vergil | 3, 4 | 6 | Classics 202L | If more than one examination is satisfactorily passed, additional units of credit will be provided. |
| | 5 | 6 | Classics 202L and 301L**** | |
| Latin Prose | 3, 4 | 6 | Classics 202L | |
| | 5 | 6 | Classics 202L and 302L**** | |
| Latin Poetry | 3, 4 | 6 | Classics 202L | |
| | 5 | 6 | Classics 202L and 301L**** | |
| 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 Writing100 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 200A and 211 | Satisfies the foreign language requirement. |
| | 4, 5 | 6 | German 200A, 200B, and 211 | |
| 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 | 9 | 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 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. 92182-0771.

### 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 filed at registration. 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 1994 semester, the drop deadline is September 12, 1994. For the Spring 1995 semester, the drop deadline is February 10, 1995.

2. Students may add courses until the end of the fifteenth day of classes. For the Fall 1994 semester, the add deadline is September 19, 1994. For the Spring 1995 semester, the add deadline is February 17, 1995.

3. Students may completely withdraw from SDSU, without penalty or restriction, until the fifteenth day of classes. For the Fall 1994 semester, the withdrawal deadline is September 19, 1994. For the Spring 1995 semester, the withdrawal deadline is February 17, 1995.

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 1994 semester, the change in grading option deadline is September 19, 1994. For the Spring 1995 semester, the change in grading option deadline is February 17, 1995.

### 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 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 Admissions and Records Office.





## 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, the student 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, 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 at 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).

The grade point average is computed on a minimum of 24 graded units taken at this institution, except that if the grade point average for work at other collegiate institutions is lower, those grades are included in the computation.

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 midyear 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 actual total achievement.

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.

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 Sessions and Winter Session courses are included in the SDSU grade point average; Open University (concurrent enrollment) 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 if 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. Courses taken during Winter and Summer Sessions through the College of Extended Studies are considered resident enrollment. 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 Article 1.1 of Title 5, ***California Code of Regulations,*** Sections 41301 through 41304. 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 Aztec Center.

## 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
Application for Graduation

# 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 1994, May 1995, or in the 1995 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 within the first three semesters 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:

**I.** 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)
*AND*
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]
*AND*
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:

**I.** 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)
*AND*
b. Earning Credit (Cr) in General Mathematics Studies 91 [clears Mathematics Competency].

*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]
*AND*
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 a transferable intermediate algebra course [clears Entry Level Mathematics]
*AND*
b. Earning a satisfactory score on any section of the SDSU Mathematics Department 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.

* 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.





## 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 Analytical Reasoning requirement in Written Communication.

**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:

| | |
|---|---|
| Anthropology 396W | Linguistics 305W |
| Commun Disorders 396W | Linguistics 396W |
| English 306W | Mex Amer Studies 396W |
| English 508W | Recreation 396W |
| English 581W | Religious Studies 396W |
| English 584W | Rhetoric and Writing 305W |
| History 430W | Rhetoric and Writing 500W |
| Industrial Technology 396W | Rhetoric and Writing 503W |
| Info and Dec Sys 396W | Sociology 396W |
| Info and Dec Sys 490W | Teacher Education 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. Courses:** By passing any one of the following pairs of courses:

| | |
|---|---|
| Africana Studies 170A-170B | Political Sci 101 and 102 |
| History 110A-110B | Political Sci 101 and 320 |
| History 110A-310B | Political Sci 102 and 305 |
| History 115A-115B | Political Sci 102 and 321 |
| History 310A-310B | Political Sci 102 and 422 |
| History 310A-110B | Political Sci 305 and 320 |
| History 410A-410B | Political Sci 305 and 321 |
| History 547A-547B | Political Sci 305 and 422 |
| Mex Amer Studies 120A-120B | Political Sci 320 and 321 |
| Mex Amer Studies 141A-141B | Political Sci 320 and 422 |
| | Women's Studies 341A-341B |

**B. Transfer credit:** 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. No partial certification of American Institutions or certification based on high school work can be accepted. Three units of transfer credit for a college-level course used to satisfy American Institutions may be used for General Education only if that course is equivalent to an approved SDSU American Institutions course listed above.

**C. Examination and courses:** By passing the California State and Local Government Test (1 hour) or coursework listed in B.3 AND completing coursework appropriate to the remaining two areas. Courses applicable to each area are listed below.

1. *American History:* All pairs of courses listed in IV.A above and History 537A-537B, 544A-544B, 545A-545B.
2. *United States Constitution:* Africana Studies 170A; History 110A, 115A, 310A, 410A, 531, 545A, 545B, 547A; Mexican American Studies 120A, 141A; Political Science 102, 305, 320, 347A-347B; Women's Studies 341A.
3. *California State and Local Government:* 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.

## 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:

1. Successfully completing the third college semester or fifth college quarter in one foreign language;
2. Successfully completing the fourth-year level of high school courses in one foreign language;
3. Successfully completing a third-semester equivalent proficiency examination in one foreign language;
4. 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 301L (Latin)
French 100A, 100B, and 200A or 200B or 200C or 200D or 200E
German 100A, 100B, and 200A or 200B
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:

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. *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:
   a. For students majoring in Spanish ..... 49
   b. For students majoring in social work ..... 51
   c. For students completing the single subject teaching credential program in French or Spanish ..... 52
   d. For students completing the single subject teaching credential program in Russian ..... 54
   e. For students majoring in art with an emphasis in studio arts ..... 57
   f. For students majoring in dance ..... 64
   g. 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. A minimum of 30 units total, of which at least 24 units must be in upper division courses (numbered 300-599).
B. 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.
C. If a minor is completed, a minimum of six upper division units in the minor.
D. 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:

A. An average based on all courses attempted at SDSU.
B. An average based on all courses attempted at SDSU and transferable courses at other universities, liberal arts colleges, and community colleges.
C. An average based on all upper division courses attempted in the major department or required for the major.
D. 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 Foundations 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 Analytical Reasoning; 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 Analytical Reasoning, are designed to develop your skills in the areas of written and oral communication, and in mathematics and 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 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 Analytical 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 transferred from a California community college or from a CSU or UC campus without completing all lower division General Education requirements, you must complete the requirements listed below. Transfer courses will be used in the appropriate area of the SDSU General Education pattern.

If you transferred from a private college or university in California or from a non-California college or university, you must meet the requirements listed below. A transfer course will be used only when equivalent to the listed SDSU course.

### I. COMMUNICATION AND ANALYTICAL REASONING (12 units)

You may *not* use Credit/No Credit grades in this section.

**A. Written Communication.** Complete one course from each area.

**1. 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)

**2. Intermediate Composition**
- Africana Studies 200. Intermediate Expository Writing and Research Fundamentals (3)
- Linguistics 200. Advanced English for International Students (3)
- Rhetoric and Writing 200. Intermediate Composition (3)

**B. Oral Communication.** Complete one course.
- Africana Studies 140. Oral Communication (3)
- Mexican American Studies 111A. Oral Communication (3)
- Speech Communication 103. Oral Communication (3)

**C. Logic, Mathematics, Statistics.** Complete one course.
- Economics 201. Statistical Methods (3)
- Mathematics 118 or higher numbered course (3), excluding computer programming courses and Mathematics 249.
- Philosophy 120. Logic (3)
- Political Science 201. Elementary Statistics for Political Science (3)
- Psychology 270. Statistical Methods in Psychology (3)
- Sociology 201. Elementary Social Statistics (3)





### II. FOUNDATIONS (25 units)

**A. Natural Sciences.** Complete one course from each area. If listed in two areas, a course will meet both requirements.

**1. Life Sciences**
- \+ Anthropology 101. Human Biocultural Origins (3)
- Biology 100. General Biology (3)
- Biology 101. Animal Biology (3)
- Biology 120. Microbiology and Man (3)
- Biology 130. Plants and Man (3)

**2. 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)
- Natural Science 110A. Energy in Nature with Laboratory (4)
- Physics 103. Conceptual Physics (3)
- Physics 107. Introductory Physics with Laboratory (4)

**3. Laboratory**
- Astronomy 109. Astronomy Laboratory (1)
- Biology 100L. General Biology Laboratory (1)
- Biology 101L. Animal Biology Laboratory (1)
- Biology 120L. Microbiology and Man 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)
- Natural Science 110A. Energy in Nature with Laboratory (4)
- Physics 107. Introductory Physics with Laboratory (4)

#### 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). If you do not complete a course in each of areas 1 through 4, you will be required to take an upper division course in Explorations in the area missed.

**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)
- Religious Studies 102. Introduction to Religion (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 200B. Expository German for Reading Comprehension (3)
- German 211. Conversation (2) Cr/NC
- Hebrew 101. Elementary (4)
- Hebrew 102. Elementary (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)
- 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 102. Elementary (4)
- Spanish 201. Intermediate (4)

\+ 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.

Spanish 202. Intermediate (4)
Spanish 211. Intermediate Conversation and Writing (3)
Spanish 212. Intermediate Conversation and Writing (3)
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 319. Evolution (3)
Biology 320. Dinosaurs (3)
Biology 321. Human Heredity (3)
Biology 324. Life in the Sea (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)
Natural Science 431. The Origins of Life (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 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)
# 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 300. Global Systems (3)
* General Studies 301. Conflict and Conflict Resolution (3)
General Studies 310. Our Global Future: Values for Survival (3)
General Studies 320. Nuclear Arms Dilemma (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)
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)
* 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)

* Cultural diversity course.
# Only one of these two courses may be taken for General Education credit.





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. If you did not complete a course in each of areas 1 through 4 in Foundations, you must take your Explorations course from the area not completed, unless you are a transfer student who has satisfied lower division General Education by one of the methods listed previously.

**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 302L. 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)
Humanities 310. French Civilization (3)
Humanities 320. German Civilization (3)
Humanities 330. Russian Civilization (3)
Humanities 340. Italian Civilization (3)
Humanities 350. Spanish Civilization (3)
Humanities 400. Civilization Through Travel-Study (1-3) (Maximum GE credit 3 units)
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)
* 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)
* 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)

* Cultural diversity course.
% Not open to students with credit in History 105.
§ Not open to students with credit in History 106.
@ English 533 may not be used in place of English 302 for General Education credit.

* 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)

**5. Foreign Language**

Classics 301L. Readings in Latin Poetry (3)
Classics 303G. Readings in Greek Prose (3)
French 301. Advanced Grammar and Composition (3)
French 302. Translation and Stylistics (3)
German 302. Grammar and Composition (3)
Italian 301. Advanced Oral and Written Composition (3)
Japanese 302. Third Year Japanese II (3)
Portuguese 301. Intermediate Portuguese Grammar and Composition (3)
Portuguese 401. Advanced Oral and Written Composition (3)
Russian 301. Advanced Grammar and Composition (3)

* Cultural diversity course.

## 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 | – |
| Chemical physics | – | BS | – | – | – | – |
| Chemistry | – | BS | BA | MA | MS | PhD |
| Child development | – | BS | – | – | MS | – |
| City planning | – | – | – | – | MCP | – |
| Civil engineering | – | BS | – | – | MS | – |
| Classics | – | – | BA | – | – | – |
| Communicative disorders | – | – | BA | MA | – | – |
| Comparative literature | – | – | BA | – | – | – |
| Computer science | – | BS | – | – | MS | – |
| Counseling | – | – | – | – | MS | – |
| Creative writing | – | – | – | MFA | – | – |
| Criminal justice administration | – | BS | – | – | – | – |
| Dance | – | – | BA | – | – | – |
| Drama | BA | – | – | MA, MFA | – | – |
| Ecology | – | – | – | – | – | PhD |
| Economics | – | – | BA | MA | – | – |
| Education | – | – | – | MA | – | PhD |
| Electrical engineering | – | BS | – | – | MS | – |
| Engineering | – | – | – | – | – | PhD |
| English | – | – | BA | MA | – | – |
| Environmental health | – | BS | – | – | – | – |
| European studies | – | – | BA | – | – | – |
| ## Finance | – | BS | – | – | – | – |
| ## Financial services | – | BS | – | – | – | – |
| Foods and nutrition | – | BS | – | – | – | – |
| French | – | – | BA | MA | – | – |
| Geography | – | – | BA | MA | – | PhD |
| Geological sciences | – | BS | – | – | MS | – |
| German | – | – | BA | – | – | – |
| Gerontology | – | – | BA | – | – | – |
| Health science | – | BS | – | – | – | – |
| History | – | – | BA | MA | – | – |
| Humanities | – | – | BA | – | – | – |
| Industrial technology | – | BS | – | – | – | – |
| ## Information systems | – | BS | – | – | – | – |
| International business | – | – | BA | – | – | – |
| Journalism | – | – | BA | – | – | – |
| Latin American studies | – | – | BA | MA | – | – |
| Liberal arts | – | – | – | MA | – | – |
| Liberal studies | – | – | BA | – | – | – |
| Linguistics | – | – | BA | MA | – | – |
| ## Management | – | BS | – | – | – | – |
| ## Marketing | – | BS | – | – | – | – |
| Mass communication | – | – | – | – | MS | – |
| Mathematics | – | BS | BA | MA | – | – |
| Mathematics and science education | – | – | – | – | – | PhD |
| Mechanical engineering | – | BS | – | – | MS | – |
| Mexican American studies | – | – | BA | – | – | – |
| Microbiology | – | BS | BA | – | MS | – |
| Music | BA | BM | – | MA | MM | – |
| Nursing | – | BS | – | – | MS | – |
| Nutritional sciences | – | – | – | – | MS | – |
| Philosophy | – | – | BA | MA | – | – |
| Physical education | – | BS | – | MA | – | – |
| Physical science | – | BS | – | – | MS | – |
| Physics | BA | – | – | MA | – | – |
| Political science | – | BS | – | – | – | – |
| ## Production and operations management | – | – | BA | MA | MS | – |
| Psychology | – | BS | – | – | – | – |
| Public administration | BA | – | BA | MA | MS | PhD |
| Public health | – | – | – | – | MPA | – |
| Radiological health physics | – | – | – | – | MPH, MS | PhD |
| ## Real estate | – | BS | – | – | MS | – |
| Recreation administration | – | BS | – | – | – | – |
| Rehabilitation counseling | – | – | – | – | – | – |
| Religious studies | – | – | BA | – | MS | – |
| Russian | – | – | BA | – | – | – |

## An emphasis within the B.S. in Business Administration.





## 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 | – | – | – | – | MS | – |
| Telecommunications | – | – | BA | MA | – | – |
| Television-film production | – | BS | – | – | – | – |
| Urban studies | – | – | BA | – | – | – |
| Vocational education | – | BVE | – | – | – | – |
| Women's studies | – | – | BA | – | – | – |

## 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:*
- biochemistry
- cellular and molecular biology
- ecology
- evolution and systematics
- marine biology
- plant sciences
- zoology

**Chemistry** (BS, Applied Arts and Sciences)
*Emphasis:*
- biochemistry

**Classics** (BA, Liberal Arts and Sciences)
*Emphases:*
- classical humanities
- Greek
- Latin
- Greek and Latin

**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 geography
- physical geography
- urban and regional analysis

**Geological Sciences**
(BS, Applied Arts and Sciences)
*Options:*
- engineering geology
- geochemistry
- geology
- geophysics
- hydrogeology
- marine geology
- paleontology

**Health Science** (BS, Applied Arts and Sciences)
*Emphasis:*
- community health education

**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 and 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 1994-95 academic year.

## Credentials Offered

**Teaching Credentials**
- Adapted physical education
- Multiple subject
- Multiple subject bilingual cross-cultural language and academic development (BCLAD)
- Multiple subject with a cross-cultural, language and academic development (CLAD)
- Single subject

**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

## 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
Industrial technology
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-Mexican border studies
Women's studies

## Special Curricula

**Preprofessional Curricula**
- Predental
- Prelegal
- Premedical
- Preveterinary

**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)
Certificate in children's literature
Certificate in early intervention specialist
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 language development specialist
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 Spanish court interpreting (Imperial Valley campus only)
Certificate in Spanish translation studies
Certificate in supported employment and transition specialist
Certificate in teaching the emotionally disturbed
Certificate in technical and scientific writing
Certificate in United States-Mexico border studies

**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 | MAJOR CODE |
|---|---|---|
| | Accountancy | 05021 G |
| + | Accounting | 05021 U |
| | Afro-American Studies | 22111 U |
| | American Studies | 03131 U |
| | Anthropology | 22021 U & G |
| | Applied Mathematics | 17031 G |
| | Art | 10021 U & G |
| +¢ | Art History | 10031 U & G |
| + | Graphic Design | 10091 U |
| + | Interior Design | 02031 U |
| | Art - MFA | 10022 G |
| | Asian Studies | 03011 U & G |
| | Astronomy | 19111 U & G |
| | Biology | 04011 U & G |
| ¢ | Botany | 04021 G |
| | Business Administration | 05011 U & G |
| | Business Administration and Latin American Studies (concurrent program) | 49061 G |
| +¢ | Chemical Physics | 19081 U |
| | Chemistry | 19051 U & G |
| + | Biochemistry | 19051 U |
| | Child Development | 08231 U & G |
| | City Planning | 02061 G |
| | Classics | 15041 U |
| | Clinical Psychology | 20031 G |
| | Communicative Disorders | 12201 U & G |
| | Comparative Literature | 15031 U |
| | Computer Science | 07011 U & G |
| | Counseling | 08261 G |
| | Creative Writing | 15071 G |
| ¢ | Criminal Justice Administration | 21051 U & G |
| | Precriminal Justice Administration | 21050 U |
| | Dance | 10081 U |
| | Drama | 10071 U & G |
| | Drama – MFA | 10072 G |
| ¢ | Ecology | 04201 G |
| | Economics | 22041 U & G |
| | Education | 08011 G |
| ¢ | Educ. Administration & Supervision | 08271 G |
| ¢ | Educational Research | 08241 G |
| ¢ | Educational Technology | 08992 G |
| ¢ | Elementary Curriculum & Instruction | 08021 G |
| ¢ | Policy Studies in Language and Cross-Cultural Education | 08994 G |
| ¢ | Educational Leadership | 08061 G |
| ¢ | Reading Education | 08301 G |
| ¢ | Secondary Curriculum & Instruction | 08031 G |
| ¢ | Special Education | 08081 G |
| | Engineering | |
| | Aerospace Engineering | 09021 U & G |
| | Civil Engineering | 09081 U & G |
| | Electrical Engineering | 09091 U & G |
| | Mechanical Engineering | 09101 U & G |
| | English | 15011 U & G |
| | Environmental Health | 12142 U |
| | European Studies | 03101 U |
| +¢ | Finance | 05041 U & G |
| +¢ | Financial Services | 05043 U & G |
| | Foods and Nutrition | 13061 U |
| | French | 11021 U & G |
| | Geography | 22061 U & G |
| | Geological Sciences | 19141 U & G |
| | German | 11031 U |
| | Gerontology | 21043 U |
| | Health Science | 12011 U |
| | History | 22051 U & G |
| | Humanities | 15991 U |
| ¢ | Human Resource Management | 05151 U |
| | Industrial Technology | 08394 U |
| +¢ | Information Systems | 07021 U & G |
| | Interdisciplinary Studies | 49993 G |
| ¢ | International Business | 05131 U & G |
| ¢ | Preinternational Business | 80000 U |
| | Journalism | 06021 U |
| | Prejournalism | 06020 U |
| | Latin American Studies | 03081 U & G |
| | Liberal Arts | 49017 G |
| + | Liberal Studies–In Three Departments | 49011 U |
| | Liberal Studies–Emphasis in Education | 49015 U |
| | Liberal Studies–Pre-emphasis in Education | 49012 U |
| | Linguistics | 15051 U & G |
| +¢ | Management | 05061 U & G |
| +¢ | Marketing | 05091 U & G |
| | Mass Communication | 06011 G |
| | Mathematics-B.A. degree | 17011 U & G |
| | Mathematics-B.S. degree | 17031 U |
| | Mathematics and Science Education | 08997 G |
| | Mexican American Studies | 22131 U |
| | Microbiology | 04111 U & G |
| ¢ | Molecular Biology | 04161 G |
| | Music | 10052 U |
| | Music–Performance | 10041 U & G |
| | Music–Liberal Arts | 10051 G |
| | Nursing | 12031 U & G |
| | Prenursing | 12030 U |
| | Nutritional Sciences | 13061 G |
| | Philosophy | 15091 U & G |
| | Physical Education | 08351 U & G |
| | Physical Science | 19011 U |
| | Exercise Physiology | 08355 G |
| | Physics | 19021 U & G |
| ¢ | Physiology | 04101 G |
| | Political Science | 22071 U & G |
| +¢ | Production Operations Management | 05064 U & G |
| | Psychology | 20011 U & G |
| | Public Administration | 21021 U & G |
| | Prepublic Administration | 21020 U |
| | Public Health | 12141 G |
| | Radiological Health Physics | 12251 G |
| +¢ | Real Estate | 05111 U & G |
| | Recreation Administration | 21031 U |
| | Rehabilitation Counseling | 12221 G |
| | Religious Studies | 15101 U |
| | Russian | 11061 U |
| | Russian and East European Studies | 03071 U |
| | Social Science | 22011 U |
| | Social Work | 21041 U & G |
| | Presocial Work | 21040 U |
| | Social Work & Public Health (concurrent prog.) | 12991 G |
| | Sociology | 22081 U & G |
| | Spanish | 11051 U & G |
| | Speech Communication | 15061 U & G |
| + | Statistics | 17021 U & G |
| ¢ | Systematics and Evolutionary Biology (Zoology) | 04071 G |
| ¢ | Taxation | 05022 G |
| | Telecommunications | 06031 U & G |
| | Television-Film Production | 06031 U |
| | Undeclared | 00000 U |
| | Urban Studies | 22141 U |
| | Vocational Education | 08395 U |
| | Women's Studies | 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 and 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 & 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 |
| 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 | |
| School Psychology | |
| Clinical or Rehabilitative Services | |
| School Psychology | 00900 |
| Adapted Physical Education Emphasis | 00950 |
| | 00980 |



# 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.

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.



# Accountancy

In the College of Business Administration

**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 will enhance the School of Accountancy's ability to attract and retain top-quality accounting educators and scholars.

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, who has served the last four years as the Director of the School of Accountancy, has been named to 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 specialities 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 490W 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 490W; 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.

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* IDS 180 prerequisite waived for students in this program.
+ IDS 301 prerequisite waived for students in this program.

## Courses

### LOWER DIVISION COURSES

**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)

**300. Intermediate Accounting I (4) I, II, S**
Prerequisites: Minimum grade of C in Accountancy 201, 202. Approved upper division business major, minor, or other approved major. **Proof of completion of prerequisites required:** Copy of transcript.
Theories and principles underlying accounting for cash, short-term investments, receivables, inventories, current liabilities, plant and equipment, intangible assets, contributed capital, retained earnings. (Formerly numbered Accountancy 310.)

**301. Intermediate Accounting II (4) I, II, S**
Prerequisite: Minimum grade of C in Accountancy 300. **Proof of completion of prerequisite required:** Copy of transcript.
Theories and principles underlying accounting for long-term investments, stock options, dilutive securities, bonds, earnings per share, income taxes, pensions, leases, funds flow, changing prices. (Formerly numbered Accountancy 311.)

**302. Managerial Cost Accounting Systems (4) I, II, S**
Prerequisites: Minimum grade of C in Accountancy 201, 202; Information and Decision Systems 301, 302. **Proof of completion of prerequisites required:** Copy of transcript.
Management use and design of accounting systems for planning and control; theories and practices of cost accounting, job order cost systems, process cost systems, standard cost systems, inventory control systems, distribution analysis, and capital budgeting. (Formerly numbered Accountancy 312.)

**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. (Formerly numbered Accountancy 316.)

**321. Integrative Accounting Topics I (6)**
Prerequisites: Information and Decision Systems 180; minimum grade of C in both Accountancy 201 and 202. Not open to students with credit in both Accountancy 300 and 302. 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.

**322. Integrative Accounting Topics II (6)**
Prerequisites: Minimum grade of C in Accountancy 321 or minimum grade of C in Accountancy 300, 302, and 404. Not open to students with credit in both Accountancy 406 and 506. **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.

**325. Intermediate Managerial and Tax Accounting (3)**
Prerequisites: Minimum grade of C in both Accountancy 201 and 202. Not open to students with minimum grade of C in Accountancy 302 or 321. 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: Minimum grade of C in both Accountancy 201 and 202. Not open to students with minimum grade of C in Accountancy 300. 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 Income Tax I (4) I, II, S**
Prerequisite: Minimum grade of C in Accountancy 201, 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. (Formerly numbered Accountancy 410.)

**406. Accounting Information Systems (4) I, II, S**
Prerequisite: Accountancy 300. **Proof of completion of prerequisite required:** Copy of transcript.
Information systems requirements relevant to integrated accounting systems. Emphasis on accounting systems, designs, and controls. (Formerly numbered Accountancy 320.)

**409. Field Study in Taxation (1) II Cr/NC**
Prerequisite: Accountancy 404.
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.) (Formerly numbered Accountancy 420.)

**421. Integrative Accounting Topics III (6)**
Prerequisites: Information and Decision Systems 301; 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.

**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 300; credit or concurrent registration in Accountancy 301. **Proof of completion of prerequisites required:** Copy of transcript.
Problems involved in partnerships, consignments, consolidations, receiverships, foreign exchange, fund accounting, and other specialized areas. (Formerly numbered Accountancy 514.)

**502. Advanced Managerial Accounting (3)**
Prerequisite: Minimum grade of C in Accountancy 302. **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. (Formerly numbered Accountancy 512 and Business Administration 412.)

**504. Federal Income Tax II (4) I, II, S**

Prerequisite: Minimum grade of C in Accountancy 404. **Proof of completion of prerequisite required:** Copy of transcript.

Taxation of corporations, partnerships, estates, and trusts. Gift and estate tax. (Formerly numbered Accountancy 511 and Business Administration 411.)

**506. Auditing (4) I, II**

Prerequisites: Accountancy 301, 406; Information and Decision Systems 301. **Proof of completion of prerequisites required:** Copy of transcript.

Internal control in the design of accounting systems; flow-charting techniques; duties, ethics, and responsibilities of the auditor; operational auditing; procedures for verification of financial statements; auditor's reports. (Formerly numbered Accountancy 534.)

**508. Accounting for Not-For-Profit Organizations (3)**

Prerequisite: Accountancy 300. **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. (Formerly numbered Accountancy 515 and Business Administration 415.)

**590. Macro Accounting Issues (4) I, II**

Prerequisites: Accountancy 301, 302, 404, 406; credit or concurrent registration in Accountancy 506. **Proof of completion of prerequisites required:** Copy of transcript.

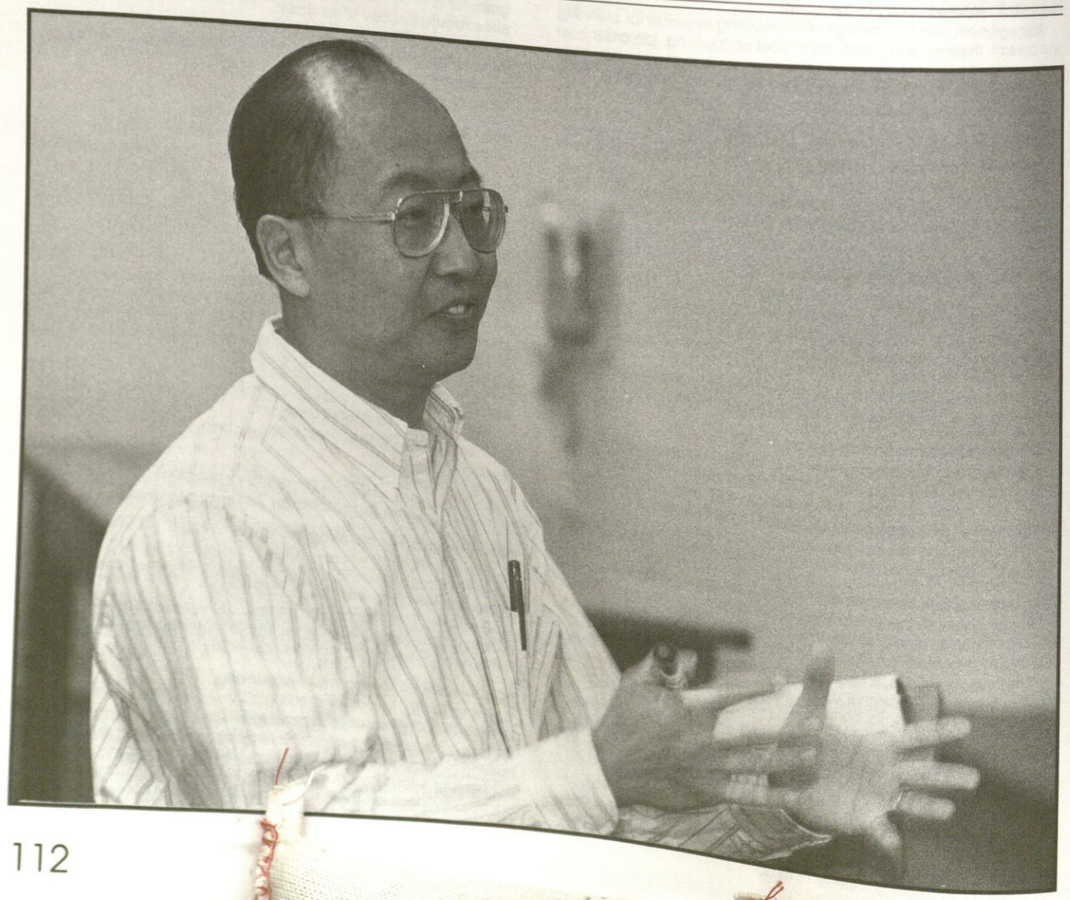
Macro-accounting issues. Political environment under which financial statements are prepared. Economic consequences of accounting standards. Ethical and social issues in financial reporting. Objectives and economic consequences of tax policy. Regulation of auditors. Management control systems. (Formerly numbered Accountancy 518.)

**596. Contemporary Topics in Accounting (1-3)**

Prerequisites: Accountancy 301, 302, 404, 406; credit or concurrent registration in Accountancy 506. **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

**OFFICE: North Education 279**
**TELEPHONE: (619) 594-6115**

In the College of Education

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
Associate Professors: Downey, Streshly

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 postsecondary educational leadership and instruction. 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.

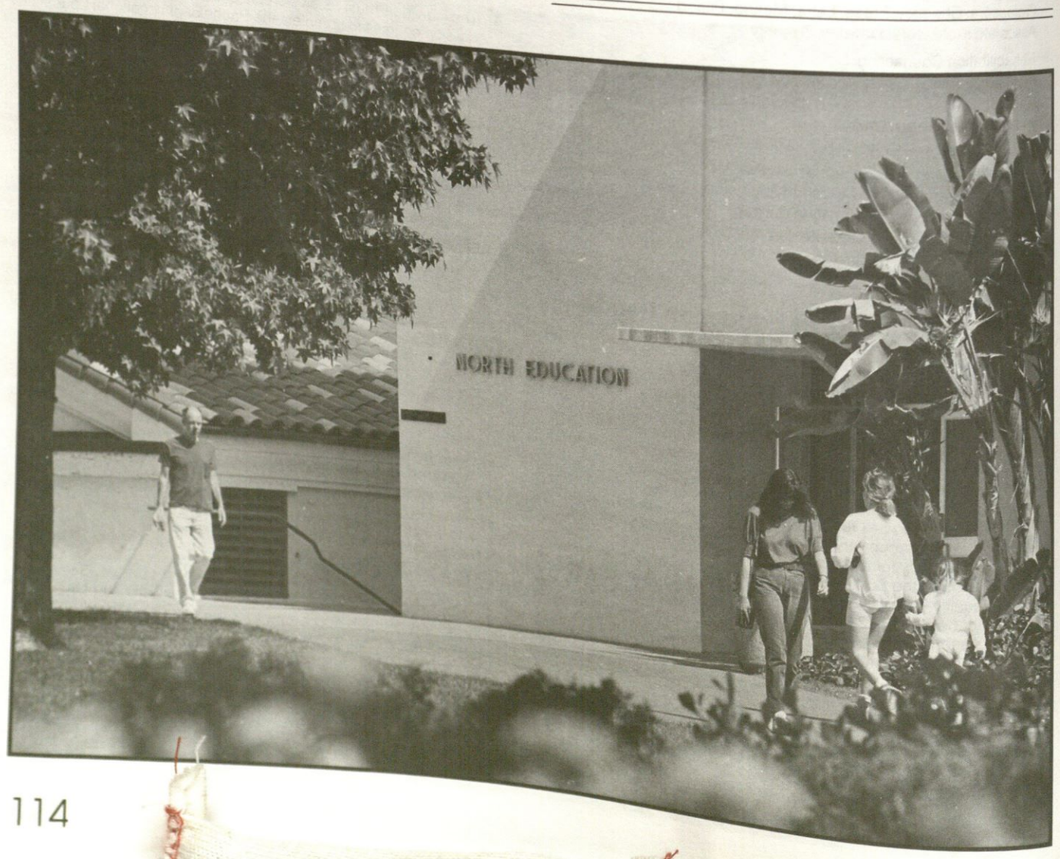
**381. Developing Adult and Vocational Education (3) I, II, S**
Needs assessment, task analysis, formulation of objectives, lesson plans, instructional techniques, and evaluation in adult and vocational settings.

**382. Directed Teaching (2-4) I, II, S Cr/NC**
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

**OFFICE: Engineering 308**
**TELEPHONE: (619) 594-6074**

In the College of Engineering

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: Lyrintzis

**Offered by the Department**
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 Analytical Reasoning:** 12 units
A. Written Communication (6 units to include):
1. Composition (3 units)
2. Intermediate Composition (3 units)
B. Oral Communication (3 units)
C. Logic, Mathematics, Statistics (3 units) applicable to General Education
Engineering students will take Mathematics 150.

**II. Foundations:** 26 units
A. Natural Sciences (14 units to include):
1. Life Sciences (3 units)
2. Physical Sciences (11 units)
Engineering students will take Chemistry 200 which includes a laboratory.
Physics 195
Physics 196
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 |
| | 17 | General Education | 6 |
| | | | 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 |
| | 19 | General Education | 3 |
| | | 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* |
|---|---|
| AE 460B, Aerosp. Engr. Applications | 3 |
| AE 480, Aeroelasticity & Acoustics | 2 |
| American Institutions | 3 |
| General Education | 3 |
| *Choose any two courses:* | |
| AE 530, Rocket & Space Propulsion | 3 |
| AE 550, Viscous Flow | 3 |
| EM 510, Fin. Elem. Meth. Aero. Struc. | 3 |
| | 17 |

| **Aerospace Structures** | *Units* |
|---|---|
| AE 460B, Aerosp. Engr. Applications | 3 |
| AE 480, Aeroelasticity & Acoustics | 2 |
| American Institutions | 3 |
| General Education | 3 |
| *Choose any two courses:* | |
| AE 540, Arcrft. Stability & Control II | 3 |
| EM 510, Fin. Ele. Meth. Aero. Struc. | 3 |
| EM 530, Composite Struc. Analysis | 3 |
| | 17 |

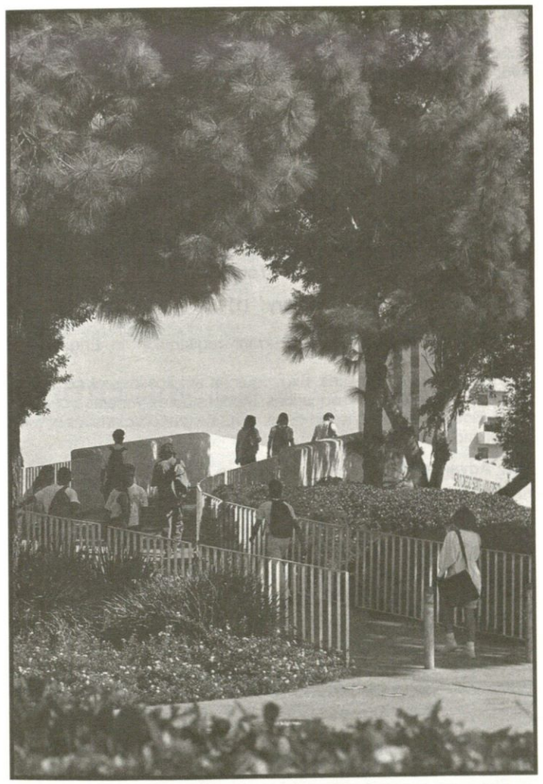
| **Propulsion & Flight Mechanics** | *Units* |
|---|---|
| AE 460B, Aerosp. Engr. Applications | 3 |
| AE 480, Aeroelasticity & Acoustics | 2 |
| American Institutions | 3 |
| General Education | 3 |
| *Choose any two courses:* | |
| AE 520, Int. Aerospace Flight Mech. | 3 |
| AE 530, Rocket & Space Propulsion | 3 |
| AE 540, Arcrft. Stability & Cntrl. II | 3 |
| | 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. 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.
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

**OFFICE: Physical Education 385**
**TELEPHONE: (619) 594-5545**

In the College of Professional Studies and Fine Arts

**Faculty**
Chair: Airman
Professor: Airman
Assistant Professors: Adelman, Mora, Powell

**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 $100 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 (AS 100/200) 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 (3) 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

**OFFICE: Adams Humanities 3129**
**TELEPHONE: (619) 594-6531**

**Faculty**
Chair: Chambers
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 and 101B; 102 or 230; 170A and 170B or 232 and 250. (15 units)

**Foreign Language Requirement.** Twelve units in one foreign language or demonstration of equivalent knowledge in a reading examination administered by the foreign language department concerned.

**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 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, 363, 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.

**185. Black Gospel Choir (1) I, II**
Prerequisite: Audition by director.
Roots of Black choral music, performance practices, and styles. Vocal technique and technical aspects of choral singing. Public performances. Maximum credit two units applicable to a bachelor's degree.

**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.

**230. Ethnicity and Black Social Competence (3)**
An exploration into the concept of ethnicity as a positive mental health model for Afro-Americans in the process of identity formation and coping strategies.

**232. Social Analysis from a Black Perspective (3)**
Prerequisite: Africana Studies 101A or 102.
Sociological concepts and models used to describe the social behavior of Afro-Americans. Issues in the interpretation of sociology from the Black perspective using the work of Black sociologists from 1900 to the present.

**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 nonverbal, 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 230 or 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 Regiae, 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.

**475. African Americans and Leadership: Organization, Strategy, and Social Change (3)**
Prerequisites: Africana Studies 101A and 170B.
Organizational leadership and social change. Analyzes leadership tasks and accountability, organizational strategies and constraints, and power and decision-making in the African American struggle for social development and human rights. Examines educational, religious, political, and intellectual leadership.

**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, Shipek

**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) I, II**
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) I**
Historical and contemporary analysis of the role of Indian women in both Indian and dominant society.

**310. American Indian Music (3)**
American Indian music and culturally diverse elements that differentiate music of North American tribes and culture groups. Music as a central element in spiritual, social, and ceremonial contexts. (Formerly numbered American Indian Studies 255.)

**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) II**
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.

**450. Bureaucracy and the American Indian (3) II**
Comparative study in the dynamics of the bureaucratic influence on society, with reference to the American Indian experience.

**460. American Indian Community Organization and Development (3) I, II**
Study of theories and purposes of development of community organizations and their functions as they relate specifically to American Indian communities, both reservation and urban. Analysis of policies which govern local community programs will be explored.

**470. Roots of Indian Tradition (3) I, II**
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.
Spirits, prophesies, 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.

**UPPER DIVISION COURSE**
**(Also Acceptable for Advanced Degrees)**

**533. Problems in American Indian Education (3) II**
Prerequisite: Three units of American Indian studies.
Survey of education system imposed on Indian America from the close of the Indian-White military conflict period to the present. Philosophies, government policy and public school accommodation will be central to the topic. Studies, recommendations and resultant programs that affect the overall educational process will be assessed.





# American Studies

In the College of Arts and Letters

**OFFICE: Adams Humanities 4207**
**TELEPHONE: (619) 594-5262**

### 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 (Family Studies and Consumer Sciences), 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.

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.** American Studies 201; 12 units selected from Anthropology 102, English 250A-250B (three or six units), History 110A-110B (three or six units). (15 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 326; 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 344, 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 522; 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 COURSES

**201. Introduction to American Culture (3) I, II**

Emphasizes the concept of culture as framework for introductory cross-disciplinary study of the American culture, through analyses of such things as artistic expression, historical events, social processes, folk and popular culture, using methodology adapted from social sciences and humanities.

**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.

# Anthropology

In the College of Arts and Letters

**OFFICE: Storm Hall 143B**
**TELEPHONE: (619) 594-5527**

**Faculty**
Emeritus: Anderson, Goldkind, Rogers, Rollefson, Watson
Chair: Whitney
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 Anthropology 396W, the University Writing Examination, or one of the approved writing courses with a grade of C (2.0) or better.

**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)**
Man'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.
Man's relationship to his 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. Archaelogical 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.

**396W. Writing of Anthropology (3)**
Prerequisites: Anthropology 101 and 102. 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.
Will develop ability to write clearly, correctly and effectively about anthropological subjects. Students will read assigned examples of anthropological writing from the main subdisciplines, write mini-ethnographies, summaries and critiques, and report on assigned research projects.

**402. Dynamics of Biocultural Diversity (3)**
Prerequisite: Completion of the General Education requirement in Foundations II.A.1. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.1., 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 (3) I, II**
Prerequisite: Anthropology 102.
Law and social control 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 and applied to our own society.

**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.

**440. Cultures of Europe (3)**
Prerequisite: Anthropology 102.
The study of society and culture in contemporary Europe, utilizing current ethnographic materials. The relationship of such studies to European culture growth and to the definition of European sociocultural regions.

**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.

**443. Contemporary Latin American Cultures (3)**
Prerequisite: Anthropology 102.
A social anthropological approach to the structure and dynamics of contemporary conditions and problems, especially as revealed in studies of particular communities. Included are such topics as ethnic and regional differences within national societies, population change, social consequences of economic changes, changing stratification systems, values, institutional change.

**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.

**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.**



# Art

## 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 department 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, Jackson, Perczel, Roth (Longenecker), Sorenson, Tanzer, Wallace
Chair: Orth
Professors: Austin, Baker, R., Cotten, Dominguez, Esser, Fisch, Hayakawa, Miller, Orth, Ray, Rigby, Roberts-Fields, Rogers, Shirk
Associate Professors: Cooling, Dumlao, Mansfield, Merritt, Yapelli
Assistant Professors: Berelowitz, Burkett, Moaney, Nelson
Lecturers: Maruyama, Nakamura, Schamu, Siprut

**Offered by the Department**

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 Department of Art is the creative growth of its students. The department 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 specialities in ceramics, furniture, metalsmithing, 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 department 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 department 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, metalsmithing, 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, 200B, and 200C; 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 Art Department 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; and to include at least one three-unit course from each of the five groups listed below:

*Ancient and Medieval Art:* Art 371, 568
*Renaissance and Baroque Art:* Art 562, 573A, 573B, 574, 575
*Modern Art and American Art:* Art 557, 558, 560
*Native American, African and Oceanic Art:* Art 561, 576
*Byzantine, Islamic, Indian, and Oriental Art:* Art 564, 565





### 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, 242. (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 Art Department 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, 505, 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 24 upper division units to include Art 416, 498A, 516, 517; six units of art history; and six units selected from Art 323, 331, 403, 404, 500, 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, 505, 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: Nine 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, 564, 565, 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. Life Modeling–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 prerequisites required:** Copy of transcript.
Creative projects exploring the interrelation of fundamental art principles and design using phonetic symbols and typography.

**242. Graphic Design Visual Presentation (3)**
Six hours.
Prerequisites: Art 102 and 103.
Presentation methods, materials, and tools of the professional graphic designer, stressing art principles.

**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 prerequisites 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 prerequisites 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)

**308. Chinese Aesthetics and the Brush (3)**
Two lectures and two hours of activity.
Aesthetic principles and cultural and literary background of Oriental brush painting. Basic techniques and practice in the discipline toward self-expression.

**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. Maximum credit six units.
**A.** Ceramic sculpture
**C.** Foundry/metal sculpture
**D.** Handmade paper sculpture
**E.** Wood sculpture

**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, silkscreen, 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) I, II Cr/NC**
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) I, II Cr/NC**
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.

**483. Museum Internship (1-6) Cr/NC**
Prerequisites: Upper division standing in art and consent of instructor.
Internship in assigned local museums and galleries under the direction of an art historian. 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.

**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.

**501. Professional Orientation in the Arts (3) I, II**
Prerequisite: Twelve units of upper division art or graduate standing in art.
Conditions met in professional art world as well as opportunities available: Exhibitions, marketing system, legal and tax responsibilities, public and private collections, grants, fellowships and professional positions investigated.

**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.

**505. Advanced Waterbase Media (3) I, II**
Six hours.
Prerequisite: Art 405.
Approaches to contemporary concepts in waterbase 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. Maximum credit six units.
**A.** Ceramic sculpture **D.** Handmade paper sculpture
**C.** Foundry/metal sculpture

**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.

**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, plaiting, 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.

**564. Art of China (3) II**
Prerequisite: Art 263.
History of Chinese art from prehistoric times through the Ching Dynasty.

**565. Art of Japan (3) II**
Prerequisite: Art 263.
History of Japanese art from prehistoric times to the Meiji Restoration.

**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)**
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.**

# Asian Studies

In the College of Arts and Letters

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:* 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), 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), Rumbaut (Sociology), Shaw (Teacher Education), Smith, R. (History), Somanathan (Chemistry), Strand (Dean, College of Arts and Letters), Wawrytko (History), Whitney (Anthropology), Whittenborn (History), Woo (Chinese)

*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 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 105, 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*.

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, six units of which must be selected from Asian Studies 105, 106, 107, or History 120, 121. 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)*.

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.

* Additional upper division prerequisites are required for these courses.

## Courses

### LOWER DIVISION COURSES

**105. Intellectual Foundations of Asia (3) I**
An interdisciplinary survey of the philosophical and religious thought of South, Southeast and East Asia and its application in theory and practice in traditional Asian societies.

**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.

### 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.

**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.

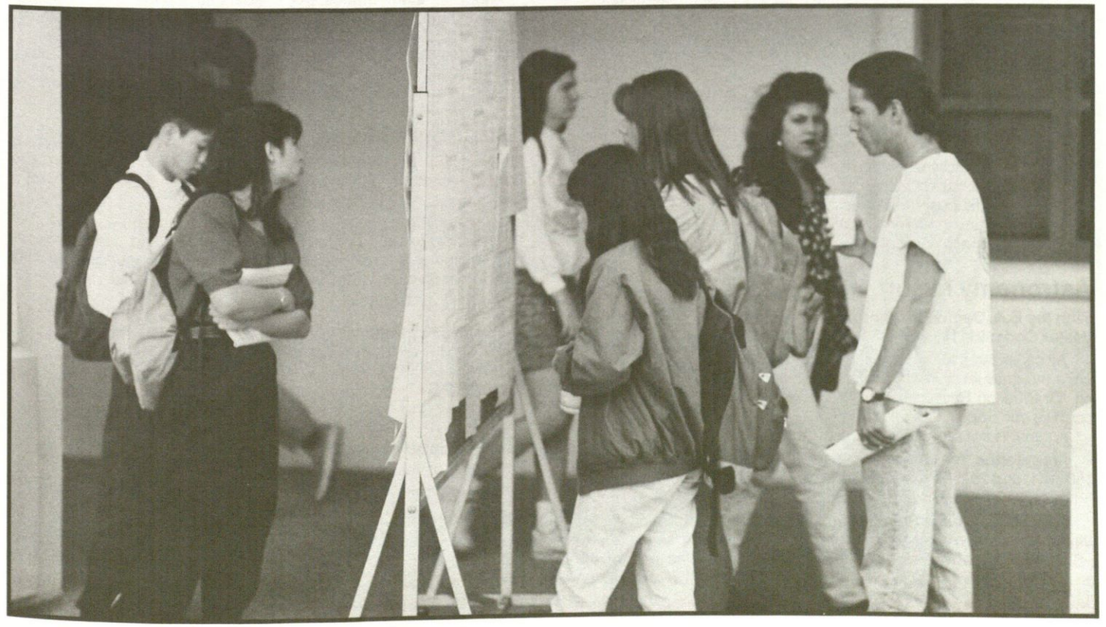
### UPPER DIVISION COURSES
### (Also Acceptable for Advanced Degrees)

**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, Young, A.
Associate Professors: Etzel, May, Shafter, Talbert
Adjunct: Hintzen, Hood, Kovach, 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 101, 109; Mathematics 150, 151, and 252; Physics 195, 195L, 196, 196L, 197, 197L. (29 units)
Recommended: Chemistry 200, Engineering 120.

**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 101, 109; Physics 195, 195L, 196, 196L, 197, 197L. (16 units)

Recommended: Chemistry 200, Engineering 120.

**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 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.







**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)**
Prerequisites: Three units of lower division physical science.
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 astronomy.

**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, Cooper, 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 Steenbergen, Walch, Wedberg, Wilson

Chair: Barnett

Professors: Allen, Archibald, Awbrey, Barnett, Bernstein, Berta, Bizzoco, Breindl, Carpenter, Chen, Collier, B., Collier, G., Cox, Davis, Dexter, Dowler, Ebert, Ford, Frey, Glembotski, Hemmingsen, Hunsaker, Hurlbert, Johnson, G., Johnson, K., Krekorian, Krisans, McClenaghan, Monroe, Oechel, Paolini, Perrault, Phleger, 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, Clouse, Harris, Helenurm, Mabee, McGuire

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, and evolution and systematics. 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.** 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 230 or 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 452 or 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, 469, 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, 230 or 231, 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, 576, 585, 589, 590, 591, 595, 596 (as appropriate), and Chemistry 431.

A formal program of study must be approved by the Emphasis in Cell and Molecular Biology adviser and filed with the Office of Admissions and Records. 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 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, 354L, 356 and Chemistry 361A or 560A. At least 15 elective units must be selected from Biology 358, 359, 454, 460, 496, 506, 512, 516, 517, 519, 527, 535, 536, 539, 540, 543, 547, 560, 563, 565, 596, 597A, and 597B. Remaining elective courses include Biology 350-362, 454-499, and all 500-level biology and chemistry courses. The above 36 upper division units must include an organismal course and two biology upper division laboratory courses.

A formal program of study must be approved by the Emphasis in Ecology adviser and filed with the Office of Admissions and Records. 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 230 or 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, 522, 523, 524, 525, 530, or 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.

A formal program of study must be approved by the Emphasis in Evolution and Systematics adviser and filed with the Office of Admissions and Records. 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, and Chemistry 361A or 560A. At least 15 upper division units must be selected from Biology 512, 513, 514, 515, 516, 517, 519, and 520, including an organism level course selected from Biology 514, 515, and 520. Remaining upper division units include all upper division biology courses numbered 350 and above (except Biology 452), all upper division chemistry courses and a maximum of 3 units from Economics 454, Geography 504 and 576, Geological Sciences 540, 545, and 548, Oceanography 541 and 561. At least two of the upper division biology electives must be biology laboratory courses (not including Biology 499).

A formal program of study must be approved by the Emphasis in Marine Biology adviser and filed with the Office of Admissions and Records. 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 230 or 231; Mathematics 121 and 122, or 150; Physics 180A or 195, 180B or 196 and 197, 182A or 195L, and 183B 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, 522, 523, 524, 525, 527, 540, 560, 565, 577, 586, 588, or 596 courses approved by the Emphasis in Zoology adviser. Of these 15 units, a minimum of 3 units must be selected from Biology 462, 462L, 506, 586, 515, 516, or 586, a minimum of 3 units from Biology 470, 512, 520, 522, 523, 524, or 525, and a minimum of 3 units from Biology 527, 540, 560, 565, 577, 588 or 596 as approved by the Emphasis in Zoology adviser. The remaining elective courses include Biology 350-362, 454, 499, and all 500-level biology 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.

A formal program of study must be approved by the Emphasis in Zoology adviser and filed with the Office of Admissions and Records. 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: 12142)**

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 230 or 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, 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 589, Community Health Education 345, Public Administration and Urban Studies 320.

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, 230 or 231, and 251; Mathematics 121 and 122, or 150; Physics 180A or 195, 182A or 195L, 180B or 196L and 197L 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, 552 and 552L, or 589; and at least three additional units selected from Biology 513, 513L, 514, 549, 551, 551L, 553, 591, and Chemistry 361B.

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.

## 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, 230 or 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, 585, and Chemistry 361A and 361B; at least one laboratory course selected from Biology 521 and 521L, 528, 552 and 552L, and 589; and at least six additional units selected from Biology 499 (maximum of three units), 513, 521, 521L, 528, 551, 551L, 552, 552L, 553, 554, 585L, 589, 591, 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, 230 or 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 40 upper division units to include Biology 350, 352, 354, 356, 549, 582, 585, 585L, 589, 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, 552, 552L, 553, 554, 578, 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 230 or 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, 469, 470, 515, 520, 522, 523, 524, 525 or 527 (animal biology); Biology 358, 460 or 514 (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

The following courses are prerequisite to the biology minor and do not count toward the 16-22 units required for the minor (prerequisites for Cellular Biology and Genetics also include Chemistry 200, 201, 230, and 361A or 560A): Biology 201 and a minimum of 16 units (22 units for Secondary Education) selected from one of the areas listed below.

At least one course must be an upper division biology laboratory course other than Biology 452 or 499. A maximum of 3 units of Biology 499 may be applied to the minor with the prior approval of the department. Other courses not listed below, including Biology 496 and 596, must have the prior approval of the department and the substitution filed with the Office of Admissions and Records. For courses requiring Biology 215 a college level course in statistics may be acceptable with consent of the instructor.

**Animal Behavior**

Required: Biology 527; electives: Biology 307, 324, 330, 339, 354, 354L, 462, 506, 524, 565, Anthropology 500 and Psychology 417.

**Cell Biology and Genetics**

Required: Biology 215; electives: Biology 350, 352, 356, 521, 521L, 549, 550, 563, 566, 576, and 590.

**Ecology**

Required: Biology 354; electives: Biology 315, 324, 330, 339, 350, 354L, 358, 359, 454, 462, 462L, 513, 535, 539, 540, and 565.

**Evolutionary Biology**

Required: Biology 319 or 354; electives: Biology 354L, 359, 462, 462L, 469, 470, 506, 522, and Natural Science 431.

**Human Biology**

Required: Biology 336 and a course in college chemistry or Biology 261; electives: Biology 150, 307, 321, 352, 362, 474, 577, 580, and 590.

**Marine Biology**

Required: Biology 514 or 515 or 520; electives: Biology 324, 513, 514, 515, 517, 519, 520, and 524.

**Plant Biology**

Required: Biology 358 or 460; electives: Biology 358, 362, 460, 514, 528, 530, 533, and 563.

**Secondary Education**

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, 460, 514 or 533; Biology 462, 462L, 469, 470, 520, 523, 524, 525 or 527. Basic courses in genetics, microbiology, and organic chemistry are 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.

## 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. Animal Biology (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. Animal Biology 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. Plants and Man (3)**

Basic structure and function of plants with emphasis on the interrelationships of plants and man. Not open to biological sciences majors.

**130L. Plants and Man 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.

**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 the laboratory portion of appropriate 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.

**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.1., 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.

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. (Formerly numbered Biology 140.)

**318. The Origins of Life (3)**

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences. 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.1. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.1., 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.1. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.1., 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.1. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.1., 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.1. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.1., 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.

**330. Natural History of Animals and Plants (3)**

Prerequisite: Completion of the General Education requirement in Foundations II.A.1. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.1., 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.1. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.1., 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.1., 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.

**341. The Human Body (3) I, II**
Prerequisite: Completion of the General Education requirement in Foundations II.A.1., 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 230 or 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.1. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.1., 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.1. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.1., 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.

**460. Economic Botany (4)**
Three lectures and three hours of laboratory.
Prerequisite: Biology 201.
Plants of agricultural, economic, and historical importance. Topics include plant genetics, agricultural breeding and propagation techniques, vegetables and fruits, spices and herbs, beverage plants, wood, and plant fibers. Plant morphology, anatomy, and taxonomy.

**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)**
Two lectures and three hours of laboratory.
Prerequisite: 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.

**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.

**469. Biology of Invertebrates (3)**
Two lectures and three hours of laboratory.
Prerequisite: Biology 201.
Form, function and ecological roles of major terrestrial, fresh water, marine, and parasite invertebrate groups. Evolution of their adaptations and methods for their study.

**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.

**474. Histology (4)**
Two lectures and six hours of laboratory.
Prerequisite: Biology 201. Recommended: Biology 150.
Descriptive microscopic anatomy of cells, tissues and organs of mammals with special emphasis on humans.





**495. Methods of Investigation (2)**
One discussion and three additional hours to be arranged.
Prerequisites: Consent of instructor and senior standing.
Selection and design of individual research in biology or microbiology; oral and written reports. See Class Schedule for specific content. Maximum credit four units.

**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) I, II Cr/NC**
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 three units applicable to microbiology and environmental health majors. Maximum credit six units for any combination of Biology 499 and Chemistry 499 applicable to biology major.

## 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.)

**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. Biological Oceanography (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.

**522. Evolution of Vertebrate Structure (4)**
Two lectures and six hours of laboratory.
Prerequisite: Biology 201.
Structural changes that have occurred in organ systems of vertebrates during the course of evolution.

**523. Herpetology (4)**
Three lectures and three hours of laboratory.
Prerequisite: Biology 522.
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)**
Two lectures and six 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.

**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.1., 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.

**341. The Human Body (3) I, II**
Prerequisite: Completion of the General Education requirement in Foundations II.A.1., 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 230 or 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.1. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.1., 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.1. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.1., 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.

**460. Economic Botany (4)**
Three lectures and three hours of laboratory.
Prerequisite: Biology 201.
Plants of agricultural, economic, and historical importance. Topics include plant genetics, agricultural breeding and propagation techniques, vegetables and fruits, spices and herbs, beverage plants, wood, and plant fibers. Plant morphology, anatomy, and taxonomy.

**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)**
Two lectures and three hours of laboratory.
Prerequisite: 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.

**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.

**469. Biology of Invertebrates (3)**
Two lectures and three hours of laboratory.
Prerequisite: Biology 201.
Form, function and ecological roles of major terrestrial, fresh water, marine, and parasite invertebrate groups. Evolution of their adaptations and methods for their study.

**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.

**474. Histology (4)**
Two lectures and six hours of laboratory.
Prerequisite: Biology 201. Recommended: Biology 150.
Descriptive microscopic anatomy of cells, tissues and organs of mammals with special emphasis on humans.





**495. Methods of Investigation (2)**
One discussion and three additional hours to be arranged.
Prerequisites: Consent of instructor and senior standing.
Selection and design of individual research in biology or microbiology; oral and written reports. See Class Schedule for specific content. Maximum credit four units.

**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) I, II Cr/NC**
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 three units applicable to microbiology and environmental health majors. Maximum credit six units for any combination of Biology 499 and Chemistry 499 applicable to biology major.

## 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.)

**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. Biological Oceanography (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.

**522. Evolution of Vertebrate Structure (4)**
Two lectures and six hours of laboratory.
Prerequisite: Biology 201.
Structural changes that have occurred in organ systems of vertebrates during the course of evolution.

**523. Herpetology (4)**
Three lectures and three hours of laboratory.
Prerequisite: Biology 522.
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)**
Two lectures and six 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.

**536. Plant-Microbe Interactions: From Molecules to Ecosystems (3)**
Prerequisites: Biology 352 and 354; Chemistry 361A.
Current theories of plant-microbe interactions including recognition, specificity, and regulation of ecosystem structure and function. Emphasis on modern molecular and population theories.

**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.

**547. Regional Field Studies in Biology (1-3)**
One- to three-week periods during vacations and summer sessions; may be combined with class meetings during academic year.
Prerequisites: At least twelve units in the biological sciences, including Biology 201, and consent of instructor.
Extended field studies of the flora, fauna, and biotic communities of major natural regions of western North America. May be repeated with new content. Maximum credit six units.

**548. Systems Ecology (4)**
Three lectures and three hours of laboratory.
Prerequisites: Biology 354, Mathematics 122 or 150, and consent of instructor.
Theory and techniques of systems analysis and mathematical modeling as applied to ecological problems.

**549. Microbial Genetics and Physiology (2)**
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 356; Chemistry 361A, 361B.
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 550.
A laboratory course in recombinant DNA techniques.

**552. General Virology (2)**
Prerequisite: Biology 350. Recommended: Biology 585 and 589.
Viruses, their structure, function, culture, and methods of study.

**552L. General Virology Laboratory (2)**
Six hours of laboratory.
Prerequisite: Credit or concurrent registration in Biology 552.
The culture, isolation, and characterization of viruses.

**553. Molecular Approaches in the Medical Laboratory (3)**
One lecture and six hours of laboratory.
Prerequisites: Biology 350 and 356; Chemistry 361A and 361B.
Application of recombinant DNA and molecular cell biology techniques in modern medical laboratory: theory and practice.

**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 230 or 231.
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.

**564. Topics in Cellular Biology (3)**
Prerequisite: Biology 356 or Chemistry 361A and 361B or Chemistry 560A and 560B.
Topics selected from chromatin structure function and regulation; cell cycle analysis and regulation; cellular membrane formation, structure and function. Other topics irregularly scheduled. Maximum credit six units.

**565. Topics in Comparative Physiology (3)**
Prerequisite: Biology 356 or, with consent of instructor, other prerequisites may be substituted.
Topics vary each semester and are chosen from three areas: digestion, nutrition, respiration, metabolism, blood, circulation, osmoregulation, and excretion; sensory reception, neural integration, and muscle function; endocrine mechanisms. Maximum credit six units. See Class Schedule for specific content.







**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.

**576. Developmental Biology (3)**
Prerequisite: Biology 352.
Analysis of development with emphasis on embryonic differentiation.

**577. Embryology (4)**
Two lectures and six hours of laboratory.
Prerequisites: Biology 201 and 202.
Studies in comparative gametogenesis, morphogenesis, and reproductive physiology.

**578. Immunohematology (2)**
Prerequisite: Biology 350. Recommended: Biology 585.
Theory of blood grouping and typing with emphasis on recent advances. Procedures for identification of immune disorders and tests to determine compatibility.

**580. Advanced Human Anatomy (4)**
Two lectures and six hours of laboratory.
Prerequisite: Biology 150 or 522.
Comprehensive dissection and study of human cadavers with major emphasis on the regional approach.

**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.

**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.

**585L. Cellular and Molecular Immunology Laboratory (1)**
Three hours of laboratory.
Prerequisites: Biology 350 and credit or concurrent registration in Biology 585.
Cellular immunological techniques.

**586. Medical Entomology (4)**
Three lectures and three hours of laboratory. See Class Schedule for lecture/lab format.
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.

**589. Pathogenic Bacteriology (4)**
Two lectures and six hours of laboratory.
Prerequisite: Biology 350 with a minimum grade of C.
Bacterial and rickettsial agents of disease in man and other animals. Consideration of host-parasite relationships, the biology of the inciting agents and mechanisms of host resistance. Laboratory experience in isolation and identification of bacterial pathogens.

**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)**
Prerequisites: Biology 356 and 585; Chemistry 361B.
Analysis of selected immunological topics using recent literature articles and reviews.

**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. Radionuclide 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.**

# Chemistry

In the College of Sciences

**OFFICE: Chemistry/Geology 305**
**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: Ring

Professors: Bennett, Cobble, Coffey, Dahms, Grubbs, Landis, Laub, Lebherz, Metzger, Ring, Roeder, Sharts, Stumph, Tong, Woodson

Associate Professors: Chatfield, Cole

Assistant Professor: Smith

### 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, 549L, 550, 551, 551L, 552, 552L, 553, 561, 561L, 563, 564, 566, 567, 569, 570, 576, 585, 585L, 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 1st Sem. | Units 2nd Sem. |
|---|---|---|
| *First year* | | |
| Chemistry 200 | 5 | – |
| Chemistry 201 | – | 5 |
| Rhetoric and Writing 100 | 3 | – |
| Rhetoric and Writing 200 | – | 3 |
| † Mathematics 150, 151 | 5 | 4 |
| Physics 195, 195L | – | 4 |
| Speech Communication 103 | 3 | – |
| | 16 | 16 |

| | Units 1st Sem. | Units 2nd Sem. |
|---|---|---|
| *Second year* | | |
| Chemistry 231 | 4 | – |
| Chemistry 251 | – | 5 |
| Chemistry 431 | – | 4 |
| Mathematics 252 | 4 | – |
| Physics 196, 196L | 4 | – |
| Physics 197, 197L | – | 4 |
| General Education | 3 | 3 |
| | 15 | 16 |

| | Units 1st Sem. | Units 2nd Sem. |
|---|---|---|
| *Third year* | | |
| Chemistry 410A-410B | 4 | 3 |
| Chemistry 560A | 3 | – |
| Chemistry Elective | – | 4 |
| American Institutions | 3 | 3 |
| General Education | 6 | 6 |
| | 16 | 16 |

| | Units 1st Sem. | Units 2nd Sem. |
|---|---|---|
| *Fourth year* | | |
| Chemistry 417 | – | 2 |
| Chemistry 457 | 2 | – |
| Chemistry 497 | 1 | – |
| Chemistry 520A-520B | 3 | 3 |
| Chemistry 550 | 2 | – |
| 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 1st Sem. | Units 2nd Sem. |
|---|---|---|
| *First year* | | |
| Chemistry 200 | 5 | – |
| Chemistry 201 | – | 5 |
| English 100 | 3 | – |
| † Math. 104, 140, 150 | 5 | 5 |
| Physics 195, 195L | – | 4 |
| Speech Communication 103 | 3 | – |
| General Education | – | 3 |
| | 16 | 17 |

| | Units 1st Sem. | Units 2nd Sem. |
|---|---|---|
| *Second year* | | |
| Chemistry 231 | – | 4 |
| Chemistry 251 | 5 | – |
| Mathematics 151, 252 | 4 | 4 |
| Physics 196, 196L | 4 | – |
| Physics 197, 197L | – | 4 |
| General Education | 3 | 3 |
| | 16 | 15 |

| | Units 1st Sem. | Units 2nd Sem. |
|---|---|---|
| *Third year* | | |
| Chemistry 410A-410B | 4 | 3 |
| Chemistry 431 | 4 | – |
| American Institutions | 3 | 3 |
| General Education | 3 | 9 |
| | 14 | 15 |

| | Units 1st Sem. | Units 2nd Sem. |
|---|---|---|
| *Fourth year* | | |
| Chemistry 417 | – | 2 |
| Chemistry 457 | 2 | – |
| Chemistry 497 | 1 | – |
| Chemistry 520A-520B | 3 | 3 |
| 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 230 or 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.

**110. Chemistry and Life (3)**
Chemistry of biological processes for the nonscience major. Basic concepts in chemistry that provide the chemical basis for understanding the nature of life.

**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.

**230. Introductory Organic Chemistry (4) I, II**
Three lectures and three hours of laboratory.
Prerequisite: Chemistry 201.
Aliphatic and aromatic compounds including reaction mechanisms. For students needing only one semester of organic chemistry. Not open to students with credit in Chemistry 231, 232, 232L.

**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, 150, or 156.
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**
Prerequisites: Chemistry 230 or 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 230 or 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) I, II, S Cr/NC**
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) I, II Cr/NC**
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)**

**501. Chemical Oceanography (3)**
Three lectures and occasional field trips.
Prerequisites: Chemistry 201 and 231. Strongly recommended: Chemistry 251. Recommended: Chemistry 410B and Oceanography 320 or 541.
The application of the fundamentals of chemistry to the study of oceans.

**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 230 or 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.**





# Chinese

**OFFICE: Business Administration 327**
**TELEPHONE: (619) 594-5268**

In the College of Arts and Letters

**Faculty**
Chair: Underhill
Professor: Woo
Lecturer: 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. (Formerly numbered Chinese 202.)

**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. (Formerly numbered Chinese 303.)

**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. (Formerly numbered Chinese 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 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**

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 Analytical Reasoning:** 12 units
A. Written Communication (6 units to include):
1. Composition (3 units)
2. Intermediate Composition (3 units)
B. Oral Communication (3 units)
C. Logic, Mathematics, Statistics (3 units) applicable to General Education
Engineering students will take Mathematics 150.

**II. Foundations:** 26 units
A. Natural Sciences (14 units to include):
1. Life Sciences (3 units)
2. Physical Sciences (11 units)
Engineering students will take Chemistry 200 which includes a laboratory.
Physics 195
Physics 196
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)

## 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 |
| | | General Education | 6 |
| | 18 | | 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 |
| | | General Education | 6 |
| | 16 | | 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 | 3 | | |
| American Institutions | 5 | | |
| | 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.
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.
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.
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) I, II Cr/NC**
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.
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.
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.
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
Lecturers: Chamberlain, Palmer

**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 Greek.
Emphasis in Latin.
Emphasis in Greek and Latin.
Teaching major in classics (concentration in Latin) for the single subject teaching credential in foreign languages.
Minor in classics.

## The Major

Classics literally means works of the first class or rank. As a university discipline, classics is the study of the languages, literatures, and civilizations of ancient Greece and Rome. Because of the basic truths and disciplined proportions cultivated by classical authors and artists, their simple yet powerful themes have assured their works lasting relevance. Classics students share the oldest European and American traditions of the humanities and the liberal arts. By studying the accomplishments of antiquity, they acquire the skills of free citizens able to choose their futures as truly educated persons, not merely as trained graduates.

Although the prime purpose of a major in classics is to satisfy the quest for values according to the intellectual and artistic legacy of Western civilization, classics graduates enjoy a range of professional career choices. Aside from preparation for graduate degrees in history, language, literature, and philosophy, as well as classics, majors in this field may look forward to renewed demands for teaching Latin and the classical world in the high schools.

Many classics majors find themselves incomparably prepared for law school, and with supplementary coursework in business, economics, or information systems, a classics graduate is very competitive in the business world. In fact, the best firms now seek out broadly educated graduates from challenging programs for their greater executive potential. Classics graduates also have an advantage in the world of the printed word as editors, librarians, journalists, and technical writers. Opportunities are also available in public relations, mass communications, government, and other fields where general knowledge, insight, 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 are waived for students in this major); six units from classics, Anthropology 478, Art 568, Religious Studies 310, or Speech Communication 450; six units of Greek or Latin; and three units of Classics 599 as a directed senior project.

**Minor.** A minor in art history, comparative literature, English, foreign language, history, philosophy, or religious studies is recommended with this major.

### Emphasis in Greek

**Preparation for the Major.** Classics 101G-202G or Classics 250G; 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 320 and History 500A; 9-12 additional units selected from classics, History 500B, or Philosophy 411; and 12-15 units of Greek.

**Minor.** A minor in art history, comparative literature, English, foreign language, history, philosophy, or religious studies is recommended with this major.

### 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 320 and History 500B; 9-12 additional units selected from classics, History 500A, or Philosophy 411; and 12-15 units of Latin.

**Minor.** A minor in art history, comparative literature, English, foreign language, history, philosophy, or religious studies is recommended with this major.

### Emphasis in Greek and Latin

**Preparation for the Major.** Classics 101G-202G or 250G, and 101L-202L or 250L; and six units from Classics 140, Comparative Literature 270A, History 105, Humanities 140. (22-26 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; nine additional units selected from classics, History 500A, 500B, or Philosophy 411; nine units of Greek; and nine units of Latin.

**Minor.** A minor in art history, comparative literature, English, foreign language, history, philosophy, or religious studies is recommended with this major.

## 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 301L, 302L, 320, 450L, 496L (3 units), 599L (Special Study in Latin: Teaching Methods, 3 units), History 500B; nine units selected from Classics 310, 330, 340, 496C (maximum of 9 units for 496C and 496L), History 500A, or Philosophy 411.

**Minor.** A minor in art history, comparative literature, English, foreign language, history, philosophy, or religious studies is recommended with this major.

## 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, Philosophy 411*, or Religious Studies 310*.

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 302L. 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, 302L 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)**

**301L. Readings in Latin Poetry (3) II**
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 epic, lyric, elegy, comedy. Authors such as Vergil, Catullus, Ovid, Plautus. (Formerly numbered Classics 304L.)

**302L. Readings in Latin Prose (3) I**
Prerequisites: Classics 301L, 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 303L.)

**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.

**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.

**310. Classical Mythology (3)**
Prerequisites: English 200 and nine units from General Education courses in Foundations II.C., Humanities.
Mythological elements in Greek and Roman art, literature, and religion.

**320. Classical Literature (3) I**
Prerequisites: English 200 and nine units from General Education courses in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors.
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: English 200 and nine units from General Education courses in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors.
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: English 200 and nine units from General Education courses in Foundations II.C., Humanities.
Greek and Roman civilization from Bronze Age to Late Empire. Integration of history, philosophy, literature, the arts, and society.

**450L. Advanced Latin (3)**
Prerequisite: Classics 301L.
Advanced reading in authors such as Vergil, Cicero, Ovid, Tacitus, Lucretius; or Latin prose composition. May be repeated with new title and content. Maximum credit six units.

**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 301L or 304G. For 599G: 304G. For 599L: 301L.
Individual study. Maximum credit six units.
**C.** Special Study in Classics.
**G.** Special Study in Greek.
**L.** Special Study in Latin.





# Communicative Disorders

**OFFICE: Communications Clinic 124**
**TELEPHONE: (619) 594-6774**

In the College of Health and Human Services

Accredited by the American Speech-Language-Hearing Association and the Council on Education of the Deaf.

**Faculty**
Emeritus: Earnest, Kopp, Riedman
Chair: Kramer
Professors: Allen, Cheng, Christensen, Kramer, Nichols, Novak, Seitz, Thal, Thile
Assistant Professors: Davies, Gutierrez-Clellen, Williams
Lecturers: Fischer, Launer
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 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, 358, 358L, 458, 458L, 459, 501, 505, 511, 512, 513, 517, 539, 542, 547, 550, 558.

## Communicative Disorders Minor

The minor in communicative disorders consists of 20 units in communicative disorders to include Communicative Disorders 104, 106, 205, 320, 321, 340*, and one of the following: Communicative Disorders 322, 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 or as Classroom Teachers of Severe Language Handicapped (or Aphasic) (Special Class Authorization) (SCA) pupils may pursue either the CH or CRS Credential Program.

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, 205, 320, 321, 322, 340, 340L, 358, 500, 511, 512, 513, 568 or 671 or 673, and 953*.

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* 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 and 596+.

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 358, 512, 513, 542, 545, 547, 550, 600*, 610, 611, 644, 647, 648 (Pediatrics), 656*, 657, 929 and 933 (Audiology class placement).

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\# Prerequisites not required for students in this credential.
\+ See Department Credential Coordinator for options.
* 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 practica 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

**104. Voice and Articulation (3) I, II**
Vocal and articulatory dynamics as bases of standard and nonstandard oral language patterns. Practice in recognition and selfanalysis of such patterns. Introduction to use of the International Phonetic Alphabet in broad transcription.

**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.

**107. Management of Clinical Activities (1) I, II Cr/NC**
Assisting in the operations of the speech and hearing clinic. Maximum credit two units.

**108. Oral Communication Laboratory (1) I, II Cr/NC**
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) I, II Cr/NC**
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.

**205. Introduction to Audiology (3) I, II**
Prerequisites: Communicative Disorders 110 and credit or concurrent registration in Physics 201.
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.

**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.
Prerequisite recommended: Communicative Disorders 104.
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 the speech-related structures of the head, neck and thorax and nervous system which activates them. Laboratory exercises and demonstrations using charts, models, histological materials and cadavers.

**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) I, II Cr/NC**
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.

**358. Beginning Sign Language (3) I, II**
Prerequisites: Demonstrated professional need and consent of instructor. Concurrent registration in Communicative Disorders 357 and 358L. Recommended: Communicative Disorders 106 or 205.
Receptive and expressive sign language skills. American Sign Language (ASL) and Sign Language Systems.

**358L. Beginning Sign Language Laboratory (1) I, II**
Prerequisite: Concurrent registration in Communicative Disorders 358.

Practice and review of basic sign language skills, including community site projects.

**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.

**458. Total Communication for Teachers of the Hearing Impaired (2)**
Prerequisites: Communicative Disorders 358 and 358L. Recommended: Concurrent registration in 458L.

Intermediate level course in the use of total communication with emphasis on developing formal and informal nonverbal communication skills.

**458L. Total Communication Laboratory (1)**
Three hours of laboratory.
Prerequisites: Communicative Disorders 358 and 358L; credit or concurrent registration in Communicative Disorders 458.

Laboratory experience to develop receptive and expressive total communication skills. Maximum credit two units.

**459. Fingerspelling (1) I**
Prerequisite: Communicative Disorders 358.

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. Speech Reading and Auditory Training (3)**
Prerequisites: Communicative Disorders 320 and 340; competency examination. Recommended: Communicative Disorders 357, 500 and 513.

Theory and methods of speech reading; auditory rehabilitation methods including survey of amplification systems.

**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: Consent of department; Communicative Disorders 110; and grade of C or better in Communicative Disorders 512, 513, 517. Communicative Disorders 513 not required of audiology students.

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, and special audiologic testing and with hearing aid evaluation. One unit represents two hours of clinical contact and one hour of staffing per week. Up to three units may be taken concurrently; maximum credit three units.

**546. Clinical Practice with Hard of Hearing (1) I, II, S**
Three hours of laboratory.
Prerequisites: Grade of C or better in Communicative Disorders 511, 512, 513.

Supervised practicum in aural habilitation with hard of hearing clients. One unit represents two hours of clinical contact and one hour of staffing per week. Up to three units may be taken concurrently; maximum credit three units.

**547. Hearing Conservation (2-3) II**
Prerequisite: Communicative Disorders 340L.

Module I: Core information (noise measurement, analysis, reduction; its effect on hearing conservation); application to school hearing conservation programs. (2 units.)

Module II: Damage risk criteria and methods of hearing protection; application of core information to industrial settings. (1 unit.)

Students may elect Module I (2 units) or Modules I and II (3 units).

**550. Education of the Hearing Impaired (3) II**
Prerequisites: Communicative Disorders 106 and 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 357, 358; credit in two of the following and concurrent registration in the third: Communicative Disorders 511, 512, 513. 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.

**558. Advanced Sign Language (2) I, II**
Prerequisite: Communicative Disorders 458.

Theory of sign language for the classroom interpreter. Emphasis on conceptual sign, signed idioms and appropriate usage for the academic setting.

**562. Oral Communication for the Hearing Impaired (3)**
Prerequisites: Communicative Disorders 512 and 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 (2)**
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: Hepner Hall 136**
**TELEPHONE: (619) 594-5528**

### Faculty

Emeritus: Barnes, Burgess, Fellers, Harper, Kessler, Kitzinger, McTaggart, Sorochan
Chair: Senn
Professor: Senn
Associate Professors: Atkins-Kaplan, 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, II**
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, II**
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 Elementary Teachers (3) I, II, S**
The teacher's function in the different aspects of the elementary school health program, with emphasis on the planning and presentation of instructional materials and community resources and relationships. (Formerly numbered Health Science 320.)

**321. Health Education for Secondary Teachers (2) I, II, S**
The teacher's function in the secondary school health program. (Formerly numbered Health Science 321.)

**331. Crisis Management (3) I, 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) II**
Prerequisites: Community Health Education 292; First Aid and CPR certification required for school health majors and those seeking a single subject teaching credential.
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) II**
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, II**
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, II**
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) I, 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, II**
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) I, 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) I, II Cr/NC**
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)**
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) I, 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, II**
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

**OFFICE: Adams Humanities 4158**
**TELEPHONE: (619) 594-5327**

In the College of Arts and Letters

**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.** Fifteen units to include Comparative Literature 210, 270A, 270B, and six units selected from English 220, 250A, 250B, 260A, 260B, 280; Classics 140; Humanities 130, 140; Philosophy 103; Religious Studies 101; and Women's Studies 205.

**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 510, 511, 512, 513, 514, 526.
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 440; 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 314, 316, 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, 506.

**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)**

**A new program will be in effect January 1, 1995.**

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 510, 511, 512, 513, 514, 526.

*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) I, II Cr/NC**
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.

**510. Medieval Literature (3)**
Representative selections from authors of the Middle Ages.

**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.

**526. Modern Jewish Literature (3)**
Prerequisite: Upper division standing.
Selected works by Jewish authors from the last half of the nineteenth century to the present, with emphasis on the Jewish literary tradition in Europe.

**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.

# Computer Science

In the College of Sciences

**OFFICE: Business Administration/Mathematics 203**
**TELEPHONE: (619) 594-6191**

**Faculty**

Chair: Elwin
Coordinator for Computer Science: Beck
Professors: Anantha, Baase, Beck, Carroll, Donald, Marovac, Swiniarski, Tarokh, Vuskovic
Associate Professors: Eckberg, Stewart, Vinge, Whitney

**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; and Physics 195, 195L, 196, 196L, or Chemistry 200, 201, or Biology 201, 202. (35-37 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 Computer Science 310, 320, 370, 530, 560, 570; at least one course selected from Mathematics 541, 550, 551A, or 579; and 15 units of 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 or 157.
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**
**requisite required:** Prerequisite: Computer Science 108. **Proof of completion of pre-**
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.

**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.

**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.

**554. Aspects of Interactive Computer Graphics (3)**
Prerequisites: Computer Science 310, 551, and Mathematics 254.
Theoretical and practical concepts and software requirements related to use of interactive computer graphics. Mathematical functions used in 3D graphics; data structures and languages both for programming graphical systems and for communication between a user and a graphical system.

**555. Raster Computer Graphics (3)**
Prerequisites: Computer Science 310 and 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.

**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.

**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

**OFFICE: North Education 179**
**TELEPHONE: (619) 594-6109**

In the College of Education

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-Zañartu
Professors: Cook-Morales, Cummins, Feinberg, Miller, Senour
Associate Professors: Ingraham, Robinson-Zañartu, Terry, Thompson, Velasquez
Assistant Professors: Brown-Cheatham, Grant-Henry, Rocha-Singh

**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.

> "The highest result of education is tolerance."
>
> —*Helen Keller* (1903)

## Courses

**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**
**(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.)

**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, 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 courtrelated 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) I, II Cr/NC**
Prerequisites: Consent of instructor and senior standing.
Analysis of special topics.

**498. Internship in Criminal Justice Administration (2-6) I, II Cr/NC**
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) I, II Cr/NC**
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**

Chair: Chambers
Professor: Sandback
Associate Professors: Hempel, Nunn, Willis

**Offered by the Department of Music**

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

## The Major

The dance program of the Department of Music 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 department 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 Department of Music.

**Preparation for the Major.** Dance 101, 111, 121, 141, 171, 181, 183, 221, 231, 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 101, 121, and 231. (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.)

**101. 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.

**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.

**141. Modern Dance I (3) I**
Six hours of activity.
Basic modern dance skills with emphasis on alignment.

**171. Dance Production I (1) I Cr/NC**
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.

**231. Jazz Dance I (2) I**
Four hours of activity.
Prerequisite: Dance majors and minors only.
Jazz dance technique and fundamentals.

**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) II**
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) II Cr/NC**
Three hours of laboratory.
Prerequisite: Entrance by audition.
Practical experience in departmental public performance. Maximum credit four units.

**271. Dance Production II (1) II Cr/NC**
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) I Cr/NC**
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) I Cr/NC**
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.

**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 department chair.
Individual study. Maximum credit six units.

# Drama

## In the College of Professional Studies and Fine Arts

**OFFICE: Dramatic Arts 204**
**TELEPHONE: (619) 594-6363**
**FAX: (619) 594-7431**

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., Larlham, McKerrow, O'Donnell, Owen, Salzer, Wolf
Associate Professors: Kalustian, Reid
Assistant Professor: 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 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 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 or 105, 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 or 105, 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 or 105, 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 or 105, 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 Industrial Technology 320 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 or 105, 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, and either 320 or 330; five units selected from Drama 523, 551, or 555; 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)**

**This curriculum will be replaced with a new program effective January 1, 1995.**

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 105, 107, 110, 120, 130, 240A, 240B; English 100, 200, 250A or 250B; and English 260A* or 260B*. Drama 100 or 105 and 107 must be taken early in the student's program in order to satisfy prerequisites. (30-33 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 38-41 upper division units to include Drama 310, 325, 359, 442A, 442B, 442C (four units required), 425, 460A, 460B, 480; English 560A* or 560B*; English 500W or 508W; three units selected from English 527, 533, 541A, 541B, 544, 547, 548; and three units from Linguistics 410, 520, 524.

* Only three units from English 260A, 260B, 560A, or 560B are required.

## 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 or 105 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.

**105. Introduction to the Theatre (3) I, II**
Theory and practice in the theatre, including its literary, critical, technical and artistic aspects viewed against historical backgrounds. Students required to participate in a minimum of five hours of related theatre experience.

**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 or 105 and 107.
Design, technical practices, and production organization for the theatre. Scenery design, stagecraft, properties, and drafting. Part one of a two-part course. (Formerly numbered Drama 240.)

**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. Not open to students with credit in Drama 245 and 250.



**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 or 105 and 107.
Analysis of representative plays with emphasis on plot and character development, dramatic structure, action, and style. (Formerly numbered Drama 420.)

**329A-329B. Practicum in Theatre for Young Audiences (3-3) Cr/NC**
Six hours of activity.
Prerequisites: Drama 315 and consent of instructor.
Practical experience in departmental public performance of plays for young audiences.

**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. (Formerly numbered Drama 249.)

**350. Acting Studies in Musical Theatre (3) I**
Two lectures and two hours of activity.
Prerequisite: Admission by consent of instructor.
Basic techniques of performers in musical theatre. Emphasis on application of acting theory to musical theatre literature.

**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.

**355. Movement for the Theatre I (2) II**
Two hours of activity per unit.
Prerequisite: Drama 100 or 105.







Locomotor and axial body movement for the stage director and actor; introduction to mime. Relationship between body expression and character portrayal. (Formerly numbered Drama 232.)

**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. (Formerly numbered Drama 457.)

**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) I, II Cr/NC**
Two hours of activity per unit.
Prerequisite for 442A: Drama 240B.
Technical theatre production experience for departmental public performances. (Formerly numbered Drama 442.)
**A.** Scenery Construction
**B.** Costume Construction
**C.** Production Crews. (Four units required.)

**445. Practicum in Performance (1-6) I, II Cr/NC**
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. (Formerly numbered Drama 545A.)

**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. (Formerly numbered Drama 448.)

**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. (Formerly numbered Drama 448.)

**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. (Formerly numbered Drama 475.)

**475B. Stage Management–Practicum (2) I, II**
Hours vary.
Prerequisite: Drama 475A.
Practical experience in stage managing department productions. Maximum credit four units. (Formerly numbered Drama 475.)

**480. Drama in the Classroom: K-12 (3) II**
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. (Formerly numbered Drama 511.)

**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.

**523. Stage Combat (2) II**
Four hours of activity.
Prerequisite: Drama 355 for undergraduates. Admission to M.F.A. program for graduate students.
Skills and choreography of armed and unarmed stage combat. Performance application to selected scenes from world drama.

**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. (Formerly numbered Drama 560.)

**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 240B.
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. (Formerly numbered Drama 545B.)

**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. (Formerly numbered Drama 554.)

**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. (Formerly numbered Drama 554.)

**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. (Formerly numbered Drama 555A.)

**589. Playwriting: The Full-Length Play (3)**
Prerequisite: Drama 325 or English 578. 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, Naughton, 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 third world, 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, 313, 330, 338, 360, 365, 380, 420, 421, 422, 441, 453, 464, 474, 520, 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, 313, 330, 336, 338; Human Resources: Economics 365, 380, 483, 489; International Economics: Economics 336, 360, 365, 464, 465, 483, 561, 565, 592; Public Issues: Economics 370 or 476, 401, 420, 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**

Prerequisite: Course in intermediate algebra.

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.

**313. Marxian Economic Theory (3)**

Prerequisite: Six units in economics.

Analysis of the theories of Marx, Engels, Lenin, Mao Tse-tung, Baran, Sweezy and others as they pertain to the periods in which they were conceived and to modern times.

**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.

**420. Topics in Macroeconomics (3)**

Prerequisites: Economics 320, 321, and Mathematics 120 or 121 or 150.

Microfoundations of macroeconomic analysis: Walras' law, macrotheory when markets do not clear, alternative theories of expectations, macrodynamic and growth theory. Implications for inflation, unemployment and the effectiveness of fiscal and monetary policy.







**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.

**441. Research Design and Method (1-3)**

Prerequisites: Economics 341; 320 or 321.

Modular course. The first module (1 unit) covers time series and forecasting. The second (2 units) covers simultaneous equations or other econometric techniques which will then be applied in an independent research project.

**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.

**483. Comparative Labor Problems (3)**
Prerequisites: Economics 101 and 102.
Comparative study of labor relations systems and labor movements in both advanced and developing nations. Individual study of a particular country of the student's choice.

**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) I, II Cr/NC**
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)**

**520. Advanced Economic Theory (3)**
Prerequisite: Economics 320.
Recent contributions to the advanced theory of the firm, consumer demand, employment and growth.

**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. U.S.-Mexico Economic Relations (3)**
Prerequisite: One course in economics.
Mexico's socioeconomic development since World War II. Problem areas affecting the U.S. including foreign trade, multinational corporations, energy, migration patterns and border relations.

**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

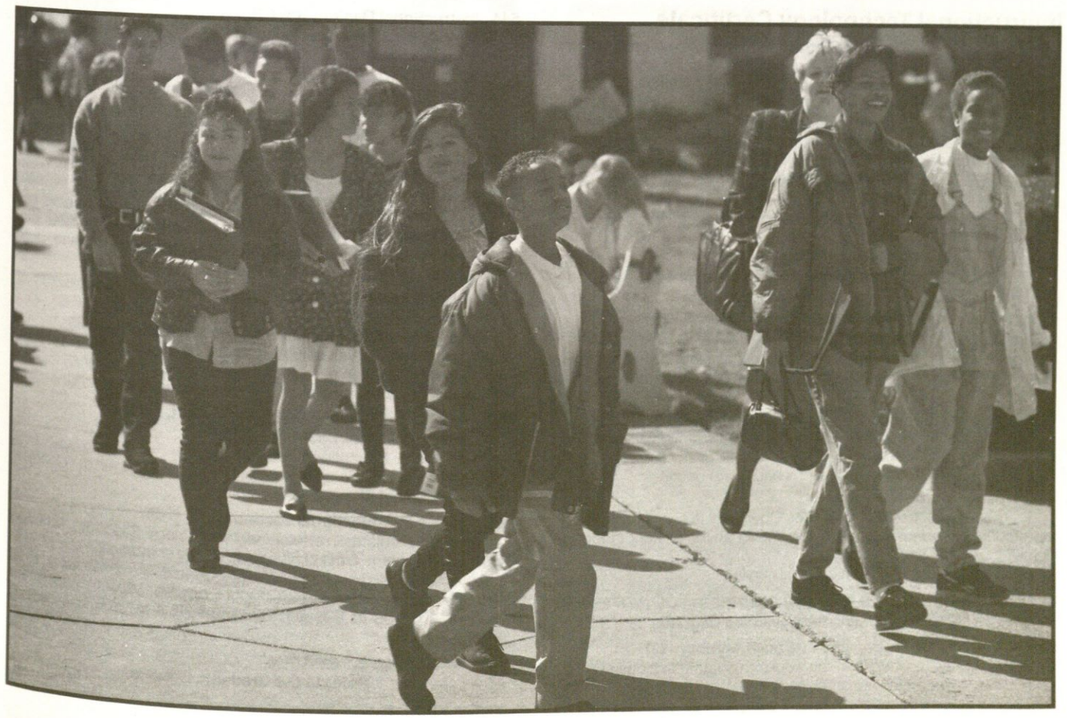
**UPPER DIVISION COURSES**
**(Intended for Undergraduates)**

**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. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 451.)

**GRADUATE COURSES**
**Refer to the Graduate Bulletin.**

> "Without ideals, without effort, without scholarship, without philosophical continuity, there is no such thing as education."
>
> —*Abraham Flexner*



# 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, Harrison, Rossett, Saba
Associate Professor: Dodge
Assistant Professor: Ritchie

**Offered by the Department**

Master of Arts degree in education.
Concentration in educational technology.
Specialization in educational computing.
Minor in educational technology.
Certificate in instructional software design.
Certificate in instructional technology.

## 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**

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.

**I. Communication and Analytical Reasoning:** 12 units
- A. Written Communication (6 units to include):
  1. Composition (3 units)
  2. Intermediate Composition (3 units)
- B. Oral Communication (3 units)
- C. Logic, Mathematics, Statistics (3 units) applicable to General Education

  Engineering students will take Mathematics 150.

**II. Foundations:** 26 units
- A. Natural Sciences (14 units to include):
  1. Life Sciences (3 units)
  2. Physical Sciences (11 units)

     Engineering students will take Chemistry 200 which includes a laboratory.
     Physics 195
     Physics 196
- 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, 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)

**General Education and American Institutions Electives.** These electives must satisfy University requirements described in Section IV of Graduation Requirements. However, electrical engineering students are urged to pay particular attention to transfer credit option in IV.C.

**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 56 upper division units to include Electrical Engineering 300, 310, 330, 330L, 340, 371, 380, 410, 430, 430L, and 434. Non-Electrical Engineering: Three units selected from Civil Engineering 301 or Engineering Mechanics 340 or Mechanical Engineering 352. Electrical Engineering Professional Electives: Eighteen units selected from any upper division electrical engineering courses and approved upper division courses from other departments. Electrical Engineering Capstone Electives: Three units selected from a list of courses approved by the department. Electrical Engineering Laboratory Electives: Two units from any non-required upper division electrical engineering laboratory course.

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 with the Office of Admissions and Records.

### FRESHMAN YEAR

| *Fall Semester* | *Units* | *Spring Semester* | *Units* |
|---|---|---|---|
| Chem. 200, General Chemistry | 5 | EE 160, Computer Prog. with C | 3 |
| Math. 150, Single Variable Calculus | 5 | Math. 151, Calc. and Anal. Geom. | 4 |
| Phys. 195, Principles of Physics | 3 | Phys. 196, 196L Principles of Physics | 4 |
| General Education* | 3 | General Education* | 6 |
| | 16 | | 17 |

### SOPHOMORE YEAR

| *Fall Semester* | *Units* | *Spring Semester* | *Units* |
|---|---|---|---|
| EE 210, Electrical Network Anal. I | 3 | EE 270, Digital Systems | 3 |
| Math. 252, Multivariate Calculus | 4 | Engr. 280, Methods of Analysis | 3 |
| Phys. 197, 197L, Principles of Physics | 4 | EM 202, Mechanics for Elec. Engrs. | 3 |
| General Education* | 6 | General Education* | 9 |
| | 17 | | 18 |

### JUNIOR YEAR

| *Fall Semester* | *Units* | *Spring Semester* | *Units* |
|---|---|---|---|
| EE 300, Comp. and Stat. Methods | 3 | EE 340, Elec. and Magnetic Fields | 3 |
| EE 310, Electrical Network Anal. II | 4 | EE 380, Elec. Energy Conv. | 3 |
| EE 330, 330L, Fund. Engr. Electronics | 4 | EE 410, Signals and Systems | 3 |
| EE 371, Computer Organization | 3 | EE 430, Electronic Circuits | 3 |
| Upper Division Engr. Elective | 3 | General Education* | 6 |
| | 17 | | 18 |

### SENIOR YEAR

| *Fall Semester* | *Units* | *Spring Semester* | *Units* |
|---|---|---|---|
| EE 430L, Electronic Circuits Lab | 1 | EE Laboratory Electives | 2 |
| EE 434, Elec. Matls. and Devices | 3 | Professional Electives | 12 |
| Professional Electives | 9 | American Institutions* | 3 |
| American Institutions* | 3 | | |
| General Education* | 3 | | |
| | 19 | | 17 |

* See Graduation Requirements section of this catalog for specific requirements.

## 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.
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.
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.
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.
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.
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.
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. Not open to students with credit in Engineering 140.

**303. Electronics, Instrumentation, and Electrical Energy Conversion (3) I, II**
Prerequisite: Electrical Engineering 203 with minimum grade of C.
Theory and application of diodes and transistors in typical electronic 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.
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.
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.
Experimental study of laboratory instruments, diodes, rectifier circuits, filters, transistors, and operational amplifiers.

**340. Electric and Magnetic Fields (3) I, II**
Prerequisite: Engineering 280.
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.
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) I, II**
Prerequisite: Electrical Engineering 371.
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.
Operating characteristics of microcontrollers with real-time applications and program development.

**380. Electrical Energy Conversion (3) I, II**
Prerequisites: Electrical Engineering 160 and 210.
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.
Experimental study of DC, single and polyphase AC circuits, transformers, and machines.

**403. Biomedical Instrumentation (3)**
Prerequisite: Electrical Engineering 303 or 330.
Instrumentation systems to monitor, control and record physiological functions.

**410. Signals and Systems (3) I, II**
Prerequisite: Electrical Engineering 310.
Linear time-invariant systems, Fourier analysis, continuous and discrete signals and systems, filtering, sampling, and z-transform techniques.

**420. Control Systems Components (3) II**
Prerequisites: Electrical Engineering 310, 330 and 380.
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.
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.
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**
Prerequisites: Electrical Engineering 330 and 340.
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.

**450. Transmission Lines for High Speed Electronics and Microwaves (3)**
Prerequisites: Electrical Engineering 330 and 340.
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.
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.
Design of digital electronic systems using commercially available high-speech digital devices and circuits.

**470L. Digital Logic Laboratory (1) I**
Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Electrical Engineering 470.
Hands-on experience in characterization and application of standard digital integrated circuit devices.

**473L. Microprocessor Laboratory (1) II**
Three hours of laboratory.
Prerequisites: Electrical Engineering 373 and 470.
Design, documentation, assembly, circuit checkout, programming, and software validation of a microprocessor-based system.

**475. Microprocessors (3) I, II**
Prerequisites: Electrical Engineering 371 and 470.
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.
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 six units for any combination of Electrical Engineering 496, 499 and 596.

**499. Special Study (1-3) I, II**
Prerequisite: Approval of project adviser and department chair.
Individual study. Maximum credit six units for any combination of Electrical Engineering 496, 499 and 596.

**UPPER DIVISION COURSES**
**(Also Acceptable for Advanced Degrees)**

**502. Electronic Devices for Rehabilitation (3) II**
Two lectures and three hours of laboratory.
Prerequisite: Electrical Engineering 303 or 330.
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.
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.
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.
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.

**540. Microwave Communications (3) II**
Prerequisite: Electrical Engineering 340. Recommended: Engineering 510.
Applications of Maxwell's equations to wave propagation; skin effect, circuit impedance elements; vector potential, and other timevarying electrical phenomena; waveguides and resonators, strip line circuits, electromagnetic radiation.

**540L. Microwave Measurements Laboratory (1) II**
Three hours of laboratory.
Prerequisites: Credit or concurrent registration in Electrical Engineering 430L and 540.
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.
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.
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.
Random signals, correlation functions, power spectral densities, the Gaussian process, narrow band processes. Applications to communication systems.

**554. Communication Principles and Circuits (3) II**
Prerequisite: Electrical Engineering 430.
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.
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.
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.
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.
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.
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.
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) I**
Prerequisite: Electrical Engineering 371.
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.

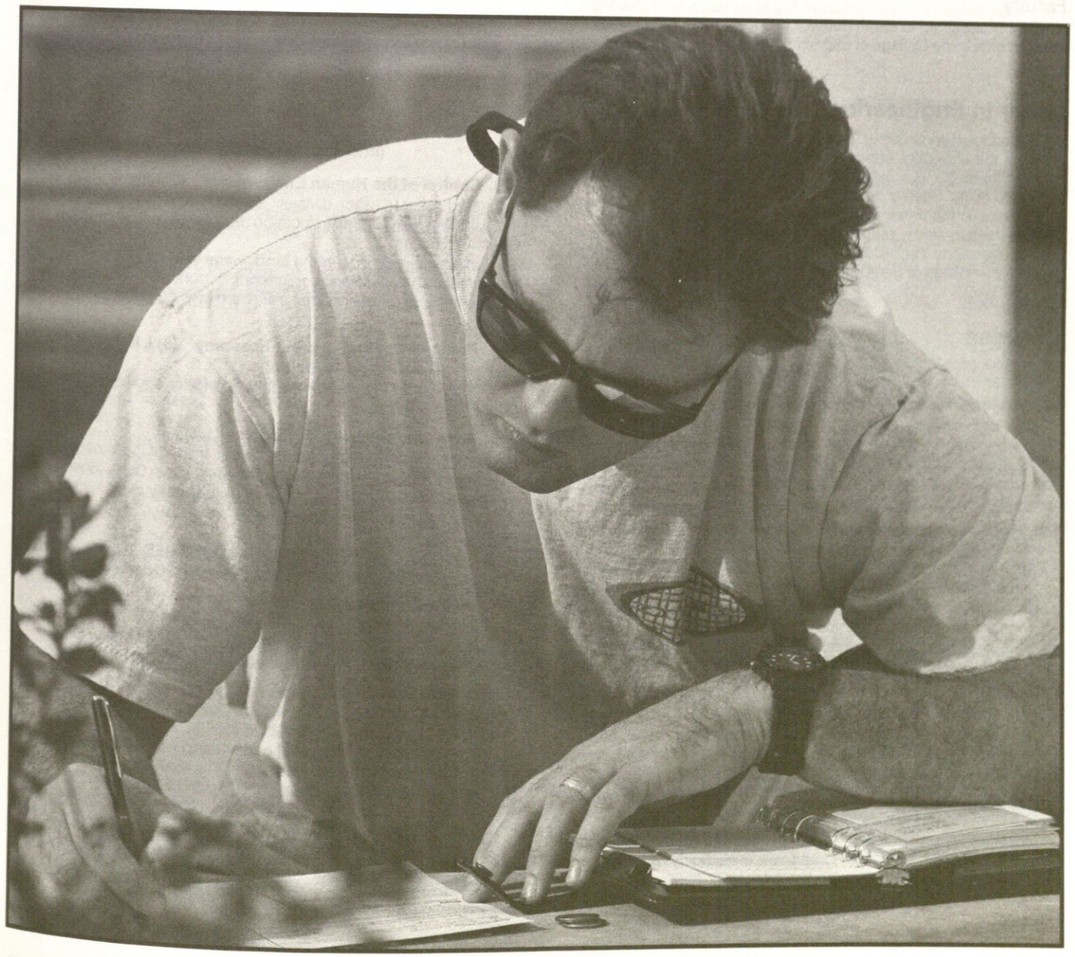
**580. Modern Power Systems I (3) I**
Prerequisites: Engineering 280, Electrical Engineering 310 and 380.
Modern power system elements; calculation of load flow, fault currents, and system stability.

**581. Modern Power Systems II (3) II**
Prerequisite: Electrical Engineering 580.
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.
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 six units for any combination of 496, 499 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.**



# Engineering

In the College of Engineering

**OFFICE: Engineering 426B**
**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.
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. (Formerly numbered Engineering 310.)

**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.

> "The sign of an intelligent people is their ability to control emotions by the application of reason."
>
> —*Marya Mannes (1958)*

**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.
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 COURSES**
**(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.

**511. Digital Solutions of Engineering Problems (3)**
Prerequisites: Engineering 120 or Computer Science 107 or Electrical Engineering 160, and Engineering 280.
Digital solution of classes of engineering problems. Application of numerical methods with consideration of limitations imposed by computer and programming language characteristics.

**GRADUATE COURSES**
**Refer to the Graduate Bulletin.**





# English

In the College of Arts and Letters

**OFFICE: Adams Humanities 4158**
**TELEPHONE: (619) 594-5307**

**Faculty**

Emeritus: Adams, J., 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: Adams, E., 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, Luria-Sukenick, Wheeler
Assistant Professors: Allison, Aninger, Koolish, Nericcio

**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.
Certificate in technical and scientific writing.

## 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 the largest English Department 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 and in Technical and Scientific Writing.

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. Moreover, after a number of years of decline, the demand for teachers of English in the high schools is now on the rise.

## 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.** Rhetoric and Writing 100; Rhetoric and Writing 200 or English 280; English 260A, 260B (unless replaced by 560A-560B), and three units selected from English 220, 250A, 250B, 280, 281, 296, Comparative Literature 210, 270A, 270B, 296. (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.** 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.

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. The same course may be used to satisfy requirements under both (b) and (c); English 560A or 560B may not be used to satisfy requirement (c). 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, and Comparative Literature 510.

*British Literature after 1800:* English 540B, 542, 543, 544, 547, 548.

*American Literature:* English 519, 520, 522, 523, 524 and 525.

* Additional prerequisites required.

*Modern Literature:* English 524, 525, 544, 547, 548, and Comparative Literature 445, 460, 514, 526.

*Literary Types, Theory, and Criticism:* English 501, 507, 508W, 527, 570, 571, 573, 577, 578, and Comparative Literature 561, 562, 563, 580, 582, 594, and 595.

*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

**This curriculum will be replaced with a new program effective January 1, 1995.**

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, 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: English 305W, 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 305W, 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 510, 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 510, 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**
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.
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.

**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 Kate Chopin, Stephen Crane, Emily Dickinson, Henry James, Carl Sandburg, 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, 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, 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 history of American literature, the outcast 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; or Pound and Eliot, Emerson and Thoreau, Vonnegut and Barth, 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, 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, and Drabble.

**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.





# Family Studies and Consumer Sciences

**OFFICE: Professional Studies and Fine Arts 431**
**TELEPHONE: (619) 594-5380**

In the College of Professional Studies and Fine Arts

**Faculty**

Emeritus: Cannon, Cooke, Dickerson, Dorris, Hewes, Martin, J., Martin, M., Milne, Price, Somerville
Chair: Deutsch
Professors: Balkwell, Deutsch, Ross
Associate Professor: Mikitka
Assistant Professor: Whitney

**Offered by the Department of Child and Family Development**

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

**Child Development.** The interdisciplinary major in child development draws from many fields of study, including anthropology, biology, home economics, psychology, and sociology, and prepares students for a variety of professional specialties. Graduates with competencies in this major find positions in preschools, 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 School's Child Study Center, Mark Whitney, Director, focuses on undergraduate and graduate training and research by providing programs to children between eighteen months to five years of age from culturally diverse families. 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 collaborative efforts with San Diego City and La Mesa Spring Valley School Districts.

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.

The adviser for this program is Dr. Francine Deutsch.

**Preparation for the Major.** Family Studies and Consumer Sciences 135, 270, 271; Anthropology 102 or Economics 101; Biology 100, 100L; Nutrition 107; Psychology 101; Sociology 101; Economics 201 or Psychology 270 or Sociology 201. (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 40 upper division units to include Family Studies and Consumer Sciences 335, 370, 375, 376A (one unit), 436, 478 or 578, 580 or 590, 597, 597L; six units selected from Family Studies and Consumer Sciences 371, or 376B (one unit) and 377, or 381; and 12 units selected to form a core of courses that reflects in-depth study in an agreed to area of specialization. A master plan must be filed with approval of the program adviser prior to course enrollment and with the Office of Admissions and Records prior to filing an Application for Graduation. Course selections may be within Family Studies and departmental offerings. No more than six of the 12 units may be in experiential independent study courses (Family Studies and Consumer Sciences 376A, 376B, 499, or similar courses from other departments).

## Child Development Minor

The minor in child development consists of a minimum of 18 units to include Family Studies and Consumer Sciences 270+, 271; and 12 units selected from Family Studies and Consumer Sciences 370, 371, 375, 376A (one unit) or 376B (one unit), 436, 437, 476, 477, 478, 537, 570+, 577, 579, 580 or 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, health science, and home economics. 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 Family Studies and Consumer Sciences 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.

Family Studies and Consumer Sciences 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. Marriage and Family (3) I, II**
Love, maturity, dating, compatibility, conflict as they relate to preparation for successful marriage and family living.

**270. Principles of Child Development (3) I, II**
Prerequisites: Psychology 101 and Sociology 101.
Study of the child from conception through adolescence, with emphasis on principles of growth and development. Directed observations of children.

**271. Human Development: Early Childhood (3) I, II**
Two lectures and three hours of laboratory.
Prerequisite: Family Studies and Consumer Sciences 270. **Proof of completion of prerequisite required:** Copy of transcript.
Physical, social, emotional, and intellectual development of the young child with applications for guidance. Observing, recording individual and group behavior of children.

**278. Child Care Parent Participation (2) Cr/NC**
One lecture and two hours of activity.
Child care practices and group management in a child care facility. Not open to students with credit in Family Studies and Consumer Sciences 279.

**279. Child Care Observation/Participation (1) Cr/NC**
Two hours of fieldwork per week as arranged, plus orientation and evaluation.
Prerequisites: Family Studies and Consumer Sciences 270 and permission of manager of Campus Children's Center.
Observation and participation in Campus Children's Center. Experiences related to cognitive, physical, and social development of young children in group setting. Not open to students with credit in Family Studies and Consumer Sciences 278.

**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: Family Studies and Consumer Sciences 135.
Marriage adjustment and family interaction throughout the life cycle.

**370. Research, Assessment, and Evaluation of Children and Families (3)**
Prerequisites: Family Studies and Consumer Sciences 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.

**371. Human Development: Middle Childhood and Adolescence (3)**
Prerequisite: Family Studies and Consumer Sciences 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.

**375. Child Development Programs (3) I, II**
Prerequisites: Family Studies and Consumer Sciences 271; concurrent registration in Family Studies and Consumer Sciences 376A 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.

**376A. Laboratory Experiences in the Child Study Center: Preschool (1-3) I, II**
Three hours of laboratory for each unit of credit.
Prerequisite: First unit requires concurrent registration in Family Studies and Consumer Sciences 375. Application to take additional units requires prior consent of instructor.
Directed experiences with children, ages 3 to 5 years, in a mainstreamed setting. Designing and implementing developmentally appropriate activities in all areas of preschool program. May be repeated, at advanced level, with consent of instructor. Maximum credit three units.

**376B. Laboratory Experiences in the Child Study Center: Infants and Toddlers (1-3) I, II**
Three hours of laboratory for each unit of credit.
Prerequisite: Family Studies and Consumer Sciences 376A. Application to take additional units requires prior consent of instructor.
Directed experiences with infants and toddlers, ages 6 to 30 months, in a mainstreamed setting. Planning developmentally appropriate activities and administering a program for young children and their families. Maximum credit three units.

**377. Infant/Toddler Programs (2)**
Prerequisites: Family Studies and Consumer Sciences 376A and concurrent registration in 376B.
Program models for children from birth to three years of age.

**381. Human Development: Adult Development and Aging (3)**
Prerequisites: Psychology 101 and Sociology 101.
Biological, psychological, and social processes of adult development and aging. Emphasis on a life-span developmental perspective, the family context, intervention, and social policy.

**430. Parent-Child Interaction (3)**
Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.
Theories and philosophies of child rearing and development; contemporary strategies for successful parenting. Not open to child development majors or students with credit in Family Studies and Consumer Sciences 335, 478, or 536.

**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.

**437. Violence in Families (3)**
Prerequisite: Family Studies and Consumer Sciences 335. **Proof of completion of prerequisite required:** Copy of transcript.
Abusive interaction in families, physical and emotional. Present conditions, trends, preventive measures and treatment techniques, and organizations analyzed. Theoretical and applied aspects will be studied.

**476. Development of Creative Behavior in Young Children (3) I,II**
Prerequisite: Family Studies and Consumer Sciences 375. **Proof of completion of prerequisite required:** Copy of transcript.
Examination of creative behavior; philosophical and empirical approaches to experiences designed for use with young children.

**477. Administration of Child Development Programs (3) I**
Prerequisite: Family Studies and Consumer Sciences 375. **Proof of completion of prerequisite required:** Copy of transcript.
Historical and philosophical background of programs for young children; current research; laws and regulations; planning, operating, evaluating child care centers and nursery schools.







**478. Working with Parents (3) I, II**
Prerequisite: Family Studies and Consumer Sciences 270.
An investigation of philosophy, issues, and current trends in working with parents.

**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)**
Prerequisites: Family Studies and Consumer Sciences 335 and Sociology 101.
Dynamics of family living; attitudes, practices, social and psychological interaction and family life patterns in different cultures, social classes and ethnic groups.

**537. Child Abuse (3)**
Prerequisite: Family Studies and Consumer Sciences 437 for majors; completion of the General Education requirement in Explorations for non-majors; consent of instructor for graduate students.
A multidisciplinary approach to child abuse including study of child maltreatment and mistreatment, child neglect, and sexual abuse.

**570. Infant/Toddler Development (3) I**
Prerequisites: Family Studies and Consumer Sciences 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.

**577. Advanced Administration of Child Development Programs (3) II**
Prerequisite: Family Studies and Consumer Sciences 477. **Proof of completion of prerequisite required:** Copy of transcript.
Problems of organization in conducting programs for young children; interrelationships of staff; personnel practices; communication with teaching staff, parents, and community; records and reports.

**578. Parent-Child Relationships Across the Life Span (3) II**
Prerequisites: Family Studies and Consumer Sciences 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.

**579. Advanced Child Study (3)**
Prerequisite: Nine units in child development courses.
Physical, social, and psychological factors that determine the direction of child behavior. Readings and interpretations of scientific literature that contribute to an understanding of theories of human development.

**580. Program Evaluation for Human Development Services (3)**
Prerequisite: Twelve units in the child development major.
Principles of human development services program evaluation to enhance management and the quality of services to children and their families.

**590. Developmental Dysfunctions (3)**
Prerequisites: Family Studies and Consumer Sciences 270 or Psychology 330, and twelve upper division units in family studies and consumer sciences 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 childhood disorders. Etiology, development, and adjustment to these disorders.

**596. Advanced Studies in Family Studies and Consumer Sciences (1-6)**
Prerequisite: Nine upper division units in family studies and consumer sciences.
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 Development and Family Studies Field Experiences (1) I, II**
Prerequisites: Twelve units in the child development major and concurrent registration in Family Studies and Consumer Sciences 597L.
Developmental theories and techniques in child development.

**597L. Child Development and Family Studies Field Experiences Laboratory (2) I, II**
Prerequisites: Twelve units in the child development major and concurrent registration in Family Studies and Consumer Sciences 597.
Directed experiences in the practical application of developmental theories and techniques in various community agencies.

### GRADUATE COURSES
**Refer to the Graduate Bulletin.**

**For courses in nutrition, refer to "Nutrition" in this section of the catalog.**

# Finance

## In the College of Business Administration

**OFFICE: Student Services 3356**
**TELEPHONE: (619) 594-5323**

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, Wijnholds
Chair: Varaiya
Professors: Gitman, Haddad, Hutchins, Nye, Omberg, Salehizadeh, Short, Sterk, Vandenberg, Varaiya, Warschauer (Associate Dean and Director, Graduate Program)
Associate Professors: Block, Bost, Cherin, Ely, Houston, Sachdeva, Wilbur (Associate Dean and Director, Undergraduate Program)
Assistant Professors: Do, Kim, Song

**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.

## 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 it 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, 342, 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, 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-six upper division units consisting of Finance 323, 326, 327, 331, 342 or 521, 589; Accountancy 404*; Information and Decision Systems 302; Management 350; Management 405 or Information and Decision Systems 404; Marketing 370; twelve units selected from Finance 421, 425, 431, 433, 435, 445; Accountancy 300, 301, 504; Economics 320, 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, 342, 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 22 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

* Prerequisite waived for students in this program.

## 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)**

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.

**342. Insurance and Corporate Risk Management (3)**

Prerequisite: Completion of lower division requirements for the major.

Nature and extent of business and social risk. Risk-handling techniques, insurance principles and practices; basic contracts analysis; insurance underwriting and rating; insurance problems and trends; business risk management.

**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**

Prerequisite: Finance 325. Strongly recommended: Economics 490.

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, II**

Prerequisite: Finance 335.

Introduction to theories of real property value. Techniques of value determination. Data analysis techniques.

**435. Real Estate Investment Analysis (3) II**

Prerequisites: Finance 323 with minimum grade of C 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 (3) 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**

Prerequisites: Finance 327 and credit or concurrent registration in Accountancy 404.

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

**OFFICE: Business Administration 304**
**TELEPHONE: (619) 594-6491**

**Faculty**
Emeritus: Ghilbert, Jackson, Max, Messier, Nelson
Chair: Benkov
Professors: Benkov, Branan, Cox, Edson, Glasgow, 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.

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

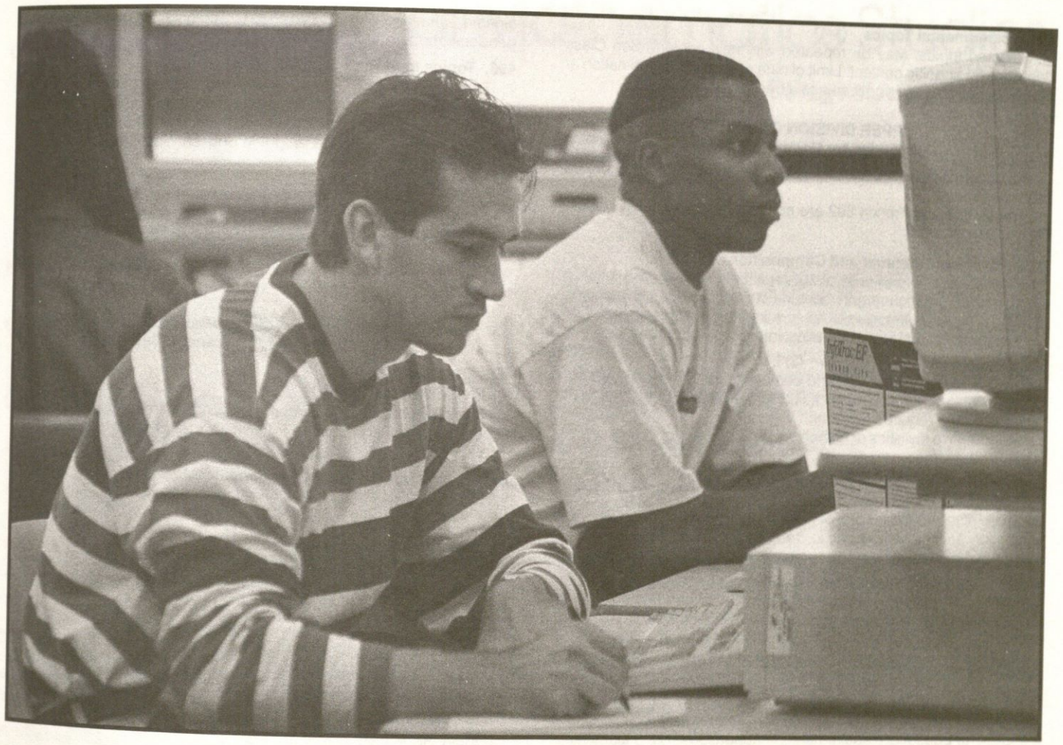
High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

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) I, 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) 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.
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) 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.
Contemporary France, emphasizing political, economic and social structures as well as artistic, intellectual, and cultural trends.

**423. Commercial French (3)**
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: French 301 for French majors; upper division standing for non-French majors.
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.

**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

**OFFICE: Nasatir Hall 232**
**TELEPHONE: (619) 594-6515**

In the College of Arts and Letters

**Faculty**
Lecturers: Friberg, Keesey, Morgan

**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 b y 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) I, II, S Cr/NC/SP**
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" or "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) I, II, S Cr/NC**
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) or "SP" (satisfactory progress) 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 Mathematics Competency requirement. (Formerly numbered Academic Skills 90B.)

**91. Intermediate Algebra (3) I, II, S Cr/NC**
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, requirement, Mathematics Competency, and Entry Level Mathematics Examination. (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) I, II Cr/NC/SP**
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 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) I, II Cr/NC**

Three lectures and one hour of activity.

Prerequisite: Grade of "Cr" (credit) or "SP" (satisfactory progress) 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 Mathematics Placement Examination, Part C requirement. (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 Placement Examination, Part C 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, Mathematics Placement Examination, Part IA, and Mathematics Placement Examination, Part C requirements.

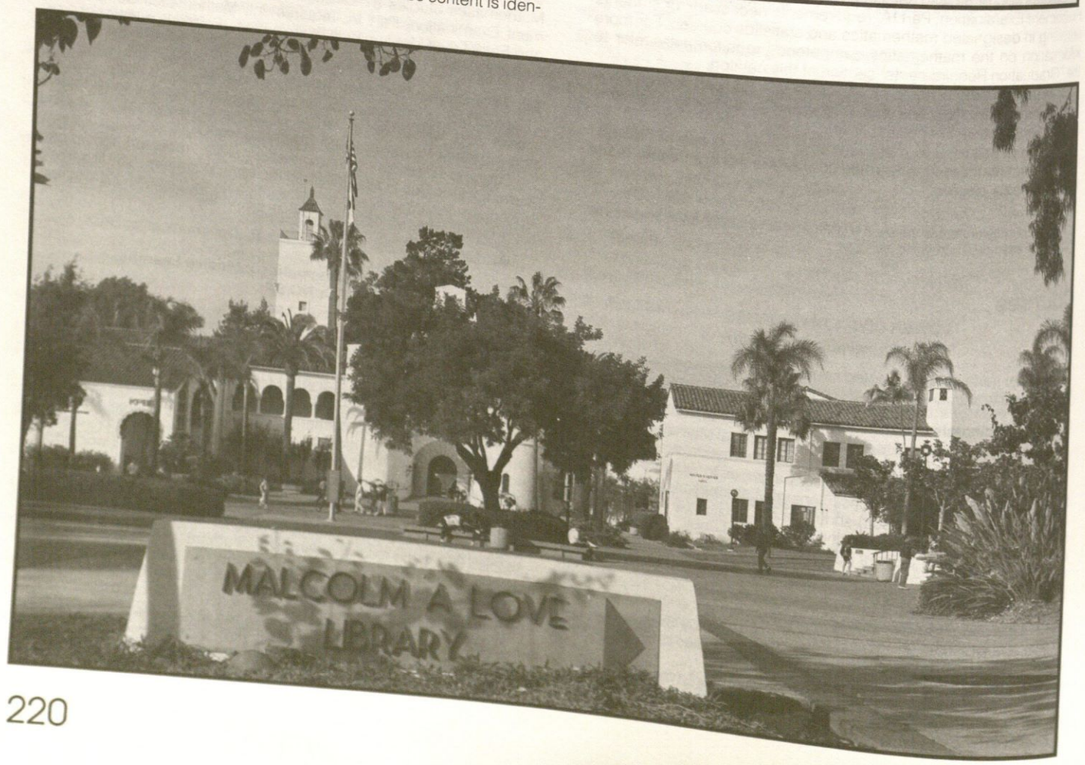
* General Mathematics Studies 90B and 99B are not offered at the Imperial Valley Campus. Students who do not attain a Cr in General Mathematics Studies 90A at the Imperial Valley Campus should repeat General Mathematics Studies 90A.

**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)

**300. Global Systems (3)**

Prerequisite: Nine units in Foundations section of General Education to include a course from each of the three areas needed to receive General Education credit.

Evolution and development of global systems, characteristics of contemporary global systems and formulation of criteria for projecting the future of the systems.

**301. Conflict and Conflict Resolution (3)**

Prerequisite: Nine units in Foundations section of General Education to include a course from each of the three areas needed to receive General Education credit.

Conflict resolution as an emerging field; theories of conflict; methods and implications of conflict management including group, institutional, and international level analysis.

**310. Our Global Future: Values for Survival (3)**

For further information contact Dr. Eugene A. Troxell in the Department of Philosophy or Dr. Linda Holler in the Department of Religious Studies.

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.)

**320. Nuclear Arms Dilemma (3) I, II**

Prerequisites: Upper division standing; nine units in Foundations section of General Education to include a course from each of the three areas in order to receive General Education credit.

Nuclear arms race from scientific, historical, economic, ethical, and sociopsychological perspectives. Effects of nuclear weapons, current strategies for their use, and proposals for reducing nuclear weapons.

**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, 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, 350, 550) are interdisciplinary selected topics courses.

Students interested in enrolling in General Studies 250, 350 or 550 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)**
**550. Interdisciplinary Topics (1-4)**

# Geography

In the College of Arts and Letters

**OFFICE: Storm Hall 323**
**TELEPHONE: (619) 594-5437**

**Faculty**

Emeritus: Blick, Colombo, Eidemiller, Keen, Kiewiet de Jonge, Storm, Taylor, Yahr

Chair: Stow

The Stephen and Mary Birch Foundation Chair in Geographical Studies: Getis

Professors: Aguado, Aitken, Ford, Fredrich, Getis, Greenwood, Griffin, Hope, Johnson, McArthur, O'Brien, Pryde, Quastler, Stow, Stutz, Weeks, Wright

Associate Professors: Franklin, O'Leary

Assistant Professor: Brewer

Lecturer: 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.

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 320-339; (b) 353-359, 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: 353-359, 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, 320-339. 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) 320-339; (b) 370, 545, 570-577; (c) 353-359, 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 320-339; six units from 378, 401, 409, 504-511, and three units from 353-359, 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. (6 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 320-339; six units from 378, 401, 409, 504-511, and three units from 353-359, 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 156; 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) 320-339; (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, 358-359, 498, 554-560, 572, 585*; six units selected from 378, 401, 409, 504-511; three additional units from each of the following groups: (a) 320-339; (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 320-339.

*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 353-359, 554-560, and three or four units from either methods or regional courses Geography 320-339, 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, 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 disterbances. 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.

**320. California (3)**
Prerequisite recommended: Geography 101 or 102.
Systematic and regional analysis of topography, climate, and natural vegetation as related to past and present activities of humans and their use of the land. Field trips may be arranged.

**321. United States (3) I, II**
Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. 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 nonmajors. 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 nonmajors. 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 nonmajors. 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 nonmajors. 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 nonmajors. 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.







**359. Geography of Air Transportation (3)**
Prerequisite recommended: Geography 101 or 102.
Evolution, current status, with emphasis on the U.S. and future of commercial air transportation as influenced by government regulations, economic conditions, corporate strategies, and technological change.

**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.

**378. 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. (Formerly numbered Geography 583.)

**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. Geography as Human Ecology (3)**
Prerequisite: Geography 370.
Human ecology related to resource geography. Field trips may be arranged.

**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.

**576. Geography of Marine Resources (3)**
Prerequisite: Geography 101 or 102.
Spatial distribution, use, and management of marine resources. 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, Krummenacher, McEuen, Ptacek, Roberts, Threet
Chair: Walawender
The Rollin and Caroline Eckis Chair in Seismology: Day
Professors: Abbott, Berry, Bertine, Dorman, Girty, Huntley, Jiracek, Kern, 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 or 156, 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 314, 502, 505, 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, 314, 330, 498A-498B or 498A-498C, 508, 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, Chemistry 501; 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, 314, 330, 498A-498B or 498A-498C, 508, (or approved hydrogeology field course), 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, 314, 502, 506. 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.

**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.
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.
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.
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. 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.

**314. Geomorphology (3) I**
Two lectures and three hours of laboratory.
Prerequisite: Geological Sciences 105.
Development and classification of landforms with emphasis on processes involved.

**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) I, II Cr/NC**
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 314.
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.

**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, 314, 502, or 506.
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.

**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

**OFFICE: Business Administration 304**
**TELEPHONE: (619) 594-6313**

**Faculty**
Emeritus: Boney, Dunkle, Lawson, Paulin, Wolf, 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, 200A, 200B, and 211. (18 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, 302, 310, 420, and 12 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 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, 200A, 200B, and 211. (18 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 301, 302, 310, 420, 505, 510, and nine upper division units in German which may include Comparative Literature 571 (content: Faust).

**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, six 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 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 200A or 200B or the equivalent level of achievement. The usual sequence of coursework is German 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 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 200A or 200B, and 301 taken out of sequence. German 302 may be taken before 301.

**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.

**200A. Grammar of Written German (3) I, II**

Prerequisite: German 100B or three years of high school German.

German grammar at the intermediate level with emphasis on writing.

**200B. German for Reading Comprehension (3) I, II**

Prerequisite: German 100B or three years of high school German.

Reading in German with emphasis on comprehension. Works to include readings in history, science, philosophy, culture, journalism, and literature.

**200D. German for Business Purposes (3)**

Prerequisites: German 100A, 100B, or two semesters of elementary German.

Commercial language for students of German or students in business programs with an interest in Germany. Cultural differences in business philosophy.

**211. Conversation (2) I, II Cr/NC**

Prerequisite: German 100B or three years of high school German.

Practice in the spoken language with emphasis on the articulation of German sounds; practical vocabulary; conversation on everyday cultural topics.

**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 200A, 200B, 211; 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.

**302. Grammar and Composition (3)**

Prerequisites: German 200A, 200B, 211; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. **Proof of completion of prerequisites required:** Copy of transcript.

Grammar and stylistics; intensive writing practice; reports based on outside reading.

**310. Introduction to German Literature (3)**

Prerequisites: German 200A, 200B. **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**

Prerequisite: Twelve units of German language at the 200-level or higher. **Proof of completion of prerequisite 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 and 302 (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 Workshop (3)**

Prerequisites: German 301, 302, and 310.

Workshop in translation of literary texts from German to English and English to German.

**505. Applied German Linguistics (3)**

Prerequisites: German 301 and 302.

Linguistic study of modern German; integration of modern linguistic theory with the language classroom.

**510. German Phonetics (3)**

Prerequisites: German 200A; 200B or 200C; 211.

Sounds and intonation of German.

**555. German Literature of the Nineteenth Century (3)**

Prerequisite: German 310.

Reading and discussion of representative works of significant authors and movements of the nineteenth century.

**561. German Literature of the Twentieth Century (3)**

Prerequisite: German 310.

Reading and discussion of representative works of significant authors and movements of the twentieth century.

**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

**OFFICE: Hepner Hall 203**
**TELEPHONE: (619) 594-6989**

### 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.

**Preparation for the Major.** Gerontology 101, 250; Biology 100; Community Health Education101; 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 330; Recreation 580; Social Work 420*; Sociology 350; and six units selected with approval of the adviser from Anthropology 509; Biology 480; Communicative Disorders 580; Family Studies and Consumer Sciences 335; Gerontology 496 (when appropriate); and Physical Education 433.

* Prerequisites waived.

## Gerontology Minor

The minor in gerontology consists of a minimum of 18 units to include Psychology 330, Sociology 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 528, 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)
Biology 480. Biology of Aging (3)

***III. Psychological Aspects of Aging***
Psychology 330. Development 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. Practicum in Gerontology (3)

***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 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, teievision, books and magazines, and a wide range of advertising mechanisms.

**400A-400B. Practicum in Gerontology (3-3) I, II Cr/NC**
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**

"Every language is a temple, in which the soul of those who speak it is enshrined."

*—Oliver Wendell Holmes, Sr.* (1858)

**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)**
Prerequisite: Consent of instructor.
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.

**101. Elementary (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 (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 (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.**

**304. Hebrew-English Translation (3)**
Prerequisite: Hebrew 201.
Study and practice of intensive reading and translation (Hebrew-English and English-Hebrew), using various Hebrew texts.

**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.

# History

In the College of Arts and Letters

**OFFICE: Adams Humanities 4210**
**TELEPHONE: (619) 594-5262**

**Faculty**

Emeritus: Berge, Filner, Hanchett, Munter, Norman, Pincetl, Rader, Rohfleisch, Ruetten, Schatz, Smith, C., Strong, 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, Cunniff, Davies, Dunn, Ferraro, Hamilton, Heyman, Hoidal, Kushner, McDean, O'Brien, Peterson, Smith, R., Starr, Steele, Stites, Stoddart, Vanderwood, 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, 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; or 120-121.

**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.

**120. Introduction to Asian Civilizations (3)**
Development of distinctive cultures, thought, and institutions in Asia.

**121. Asian Civilizations in Modern Times (3)**
The rise of Asian nations and nationalism with emphasis on the nineteenth and twentieth centuries.

**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 Europe

#### UPPER 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.

**408A-408B. England (3-3)**
Political and social history of England from the earliest times to the present day, stressing the origins of American institutions and social patterns. Recommended for majors in English.

**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.

**523A-523B. Modern Britain (3-3)**
Semester I: The development of constitutional and social patterns from the Glorious Revolution to the French Revolution, emphasizing the immediate background to the American Revolution. Semester II: From the nineteenth century to the present, including the rise of Parliamentary democracy, imperialism and the Victorian age, and political thought from the Utilitarians to the Fabians.

**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 premodern 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. AntiSemitic 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
- **B.** Modern Europe
- **C.** United States
- **D** Latin America
- **E.** South, Southeast, and East Asia
- **F.** Africa and Middle East
- **G.** Topical Subjects

**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, 105, or 120.
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: Cutter, Eisner, Genovese, Skwara

Lecturer: Palmer

**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.

Minor in European studies.

Minor in humanities.

## The Majors

**European Studies.** The European studies major approaches Europe as a unique cultural and historical heritage of values, traditions, problems, and resources. This interdisciplinary curriculum draws on faculty from history, foreign languages, philosophy, literature, political science, art, music, economics, and geography.

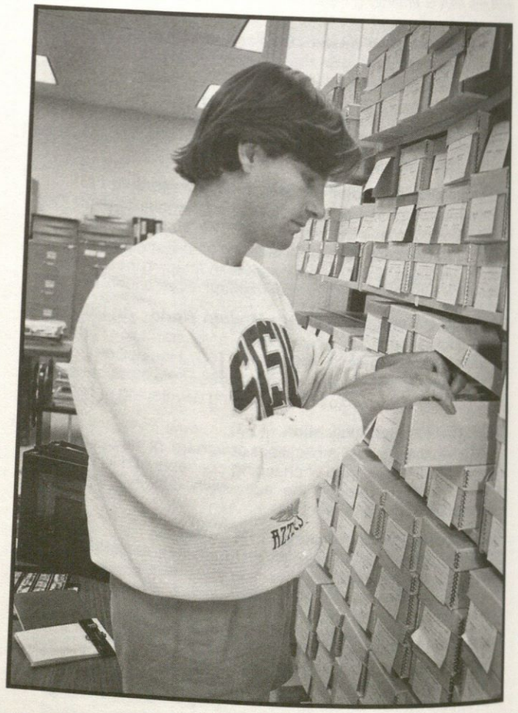
Every major is required to take Humanities 401, 402, 403, and 404. Each course is concerned with a period of European achievements in the visual arts, music, literature, and philosophy. This course sequence should develop critical abilities and provide an integrated understanding of European culture.

European studies is a broadening, humanizing discipline for the nonspecialist. Students may enhance or focus their studies with optional courses within the major or by taking additional courses in other departments. For example, for a career in art sales in Europe, courses in art history, economics, and international business would be appropriate. For a career in the press corps, supplementary courses in expository writing and political science should be taken. Depending upon the focus a major may find a career in international marketing; art, music, or theater criticism; travel; museum and gallery work; fashion; librarianship; international legal or financial consulting; writing, teaching, or research.

**Humanities.** Men and women of all civilizations express themselves in acts and works. Some of these expressions are achievements that will become models for appreciation and study. Whether a symphony or a statue, a temple or a treatise, a work may be interpreted and evaluated according to the criteria and methods of humanistic disciplines such as literature, history, philosophy, art history.

The goal of the humanities major is a holistic and interdisciplinary understanding of the humanity of peoples and their times by studying the accomplishments that portray and articulate best what they value most. In short, humanities shows us what being civilized amounts to. It directs us to the meaning and value of life and helps us create and enjoy a life of our own.

With a background in analysis and communication, with an appreciation of the fine arts, with an awareness of history, ideas, and letters, humanities majors are well prepared for various careers. Particular career opportunities might be found in international press or diplomacy, trade, or finance. Or one might become a cultural consultant in government or the private sector; an editor or writer; an art, music, or theater critic; a travel consultant or a museum curator. Finally, a carefully chosen array of courses will prepare a humanities major for graduate studies and an academic career.



## 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 is not required with this major.

**Preparation for the Major.** History 105, 106; Classics 140; six units from Art 258 or 259, Comparative Literature 210, Economics 101 or 102, English 220, Geography 102, Political Science 101 or 103. (15 units)





**Foreign Language Requirement.** Twelve units in any one of the following languages: French, German, Italian, Latin, Russian, Spanish.

**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 36 upper division units to include Humanities 401, 402, 403, 404; six units in one of the foreign languages listed above; six units selected from Art 371*, 557*, 558*, 573A*, 573B*, 574*, 575*; Drama 460A, 460B; Music 351A, 351B, 351C; six units selected from Geography 336, Political Science 301A, 301B, 302, 356; and six units from Anthropology 440*, History 503A, 503B, 506, 509, 510A, 510B, 511A, 511B, 512A, 512B, Comparative Literature 510, 511, 512, 513, 514, Philosophy 412*, 413*, 414*, 506*. Majors in European studies must have their program for each semester approved in advance by the adviser.

## 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."

***During their last semester, all seniors majoring in Humanities shall submit to the department a portfolio of their scholarly work.***

A minor is not required with this major.

**Preparation for the Major.** History 105 and 106; six units selected from Humanities 101, 130, 140, Classics 140, Women's Studies 205; and six units selected from Comparative Literature 270A, 270B, Philosophy 101, 102, 103, Religious Studies 101. (18 units)

**Foreign Language Requirement.** Twelve units in any one of the following languages: Chinese, French, German, Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish.

**Upper Division Writing Requirement.** Passing the University Writing Examination or English 508W or Rhetoric and Writing 500W with a grade of C (2.0) or better.

**Major.** A minimum of 36 upper division units to include:

*Classical and European Civilization:* Humanities 401, 402, 403, 404, Classics 340*.

*Non-Western Civilization:* Six units selected from Humanities 450, 460, Asian Studies 458.

*Genre and Systematic Studies:* Twelve units selected from at least three of the following areas: Art 371, 557, 558, 560, 561, 562, 568, 575, 576, 577; Comparative Literature 470, 490, 561, 562, 563, 571; Drama 460A, 460B; English 493; Music 351A, 351B, 351C, 351D, 351E, 351F; Philosophy 305, 310, 329, 334, 508, 512, 523, 525, 528, 531, 532, 535, 542.

*Interdisciplinary Synthesis:* Three units selected from Humanities 400, 496, 596, 599, Comparative Literature 595, Music 592, Philosophy 541, Religious Studies 360.

## European Studies Minor

The minor in European studies consists of a minimum of 15 units to include Humanities 401, 402, 403, 404, and either Anthropology 440*, Geography 336 or Political Science 356. Students are urged to take History 105 and 106 to meet their general education requirement.

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 requirements listed above.

## Humanities Minor

The minor in humanities consists of a minimum of 21 units, 12 of which must be upper division, to include Humanities 404*.

*History of Western Civilization:* Three units selected from Humanities 401, 402, 403, Classics 140, 340.

*Non-Western Civilization:* Three units selected from Humanities 450, 460, Asian Studies 458.

*Genre and Systematic Studies:* Twelve units selected from four of the following areas: Humanities 130, 140, 310, 320, 330, 350, 400, 496, 596, 599; Art 258, 259, 263, 365, 371, 557, 558, 559, 561, 562, 567, 568, 569, 572, 573A, 573B, 574, 575, 576, 577; Classics 310, 320, 330; Comparative Literature 470, 490, 560, 561, 562, 563, 596; Drama 105, 120, 460A, 460B; English 250A, 250B, 260A, 260B, 493, 507; History 105, 106, 305A, 305B, 407A, 407B, 415B, 420, 421, 473A, 473B, 500A, 500B, 503A, 503B, 506, 507; Music 151, 351A, 351B, 351C, 351D, 351E, 351F, 592; Philosophy 411, 412, 413, 414, 506, 507, 541; Religious Studies 300, 301, 305, 340, 360, 506; Spanish 441; Women's Studies 205.

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 prerequisite required.

## 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.

**350. Spanish Civilization (3)**
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.
Spanish civilization of medieval, Renaissance, Baroque, and modern periods. Artistic, intellectural achievements and cultural movements. Not open to students with credit in Spanish 440.

**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.

**400. Civilization Through Travel-Study (1-3)**
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.
Civilization through supervised foreign travel-study tour. Requires lecture attendance, examinations, and written reports. May be repeated with new content. Maximum credit six 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.)

**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 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.

**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; or graduate standing and consent of instructor and program chair.
Directed individual study. Maximum credit six units.





# Industrial Technology

In the College of Professional Studies and Fine Arts

**Faculty**

Emeritus: Anderson, Bailey, G.D., Dirksen, Hammer, Irgang, Marsters, McEowen, McLoney, McMullen, Rasmussen, Thiel
Professor: Guentzler

**Offered by the Department**

Major in industrial technology with the B.S. degree in applied arts and sciences.

Teaching major in industrial technology for the single subject teaching credential in industrial and technology education.

Minor in industrial technology.

**Application for admission to this degree program has been suspended for the 1994-95 academic year.**

## The Major

The primary objective of the industrial technology major is to offer a program designed to provide: 1) academic preparation in technical and theoretical foundations of technology, 2) an understanding of industrial systems, and 3) the technical skills required for potential careers in industrial supervision or management. A secondary objective of the program is to prepare students for the single subject teaching credential in industrial and technology education.

Students choosing professional careers in this major are typically involved with 1) the application of significant theories, concepts and principles found in the humanities, social and behavioral sciences (including communications), physical sciences, and mathematics; and 2) the application of concepts and skills derived from a variety of technical disciplines such as materials and production processes, industrial management and human relations, communications, electronics, graphics, computer assisted drafting, polymers, energy, and transportation.

The major offers professional preparation for challenging and self-fulfilling careers in a variety of settings and capacities. Opportunities for rewarding positions are available for women as well as men. Students can broaden their career possibilities by complementing their major with carefully selected electives and a minor in a discipline relevant to their specific interests. In addition, invaluable experience can be gained from internships, cooperative education programs and work experience.

Individuals seeking careers in industry may choose from a wide variety of technical and managerial positions in such areas as computer, electronic or polymer technology or manufacturing production and management. Upon completion of the program, students are prepared for positions as an operations analyst, associate engineer, product assurance engineer, quality control engineer, purchasing manager, director of facilities, planner/estimator, plant engineer, OSHA coordinator, project manager, manufacturing engineer, production design engineer, industrial sales, production supervisor, process engineer, applications engineer, inspection coordinator, operations planning coordinator, systems engineer, tool and production planner, and engineering supervisor.

## Industrial Technology Major

**With the B.S. Degree in Applied Arts and Sciences**
**(Major Code: 08394)**

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.

### Specialization in General Industrial Technology

**Preparation for the Major.** Industrial Technology 121, 161, 200, to be taken at the beginning of the major; six units selected from Industrial Technology 115, 131, 140, 151, 171, 181; Accountancy 201; Chemistry 100 or higher; Economics 101, 102; Information and Decision Systems 180; Mathematics 119, 120, 140; and Physics 107 or higher. (44 units)

**Upper Division Writing Requirement.** Passing Industrial Technology 396W with a grade of C (2.0) or better.

**Major.** A minimum of 46 upper division units to include Industrial Technology 305, 320, 396W, 464, 498A, 498B, and 533. Information and Decision Systems 302; Management 350; and 21 upper division units in industrial technology. After approval by the major adviser, the student must file a curriculum plan with the Office of Admissions and Records.

### Specialization in Visual Communications

**Preparation for the Major.** Industrial Technology 121, 140, 161, 181, 200; Accountancy 201; Chemistry 100 or higher; Economics 101, 102; Information and Decision Systems 180; Mathematics 119, 120, 140; and Physics 107. (44 units)

**Upper Division Writing Requirement.** Passing Industrial Technology 396W with a grade of C (2.0) or better.

**Major.** A minimum of 46 upper division units to include Industrial Technology 320, 341, 381, 396W, 444, 482, 498A, 498B, 542, 583; Information and Decision Systems 302, 360; Management 350. Six units of electives from the following technical areas: plastics, drafting, metals, woodworking, electronics, or power; may include Industrial Technology 496 and/or 499. After approval by the major adviser, the student must file a curriculum plan with the Office of Admissions and Records.

## Industrial Technology Major

**For the Single Subject Teaching Credential**
**With the B.S. Degree in Applied Arts and Sciences**
**(Major Code: 08394)**

All candidates for a teaching credential in industrial and technology education 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.

**Preparation for the Major.** Industrial Technology 121, 161, 200, to be taken at the beginning of the major; six units selected from Industrial Technology 115, 131, 140, 151, 171, 181; Accountancy 201; Chemistry 100 or higher; Economics 101, 102; Mathematics 119, 120, 140; and Physics 107 or higher. (41 units)

**Upper Division Writing Requirement.** Passing Industrial Technology 396W with a grade of C (2.0) or better.

**Major.** A minimum of 46 upper division units to include Industrial Technology 320, 361, 396W, 492; 27 upper division units in industrial technology selected from three of the following technical areas: plastics, drafting, metals, photography, woodworking, electronics, power, or graphic arts; and seven additional units selected from Industrial Technology (may include 496, 498A, 498B, 499), Community Health Education 321, Teacher Education 454. After approval by the major adviser, the student must file a curriculum plan with the Office of Admissions and Records.

## Industrial Technology Minor

The minor in industrial technology consists of 24 units in industrial technology to include Industrial Technology 200; six units selected from Industrial Technology 115, 121, 131, 140, 161, 171, 181; and 15 upper division units to include six units in industrial technology selected with the approval of the department adviser. After approval by the minor adviser, the student must file a curriculum plan with the department office.

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

### Vocational Rehabilitation Therapy

Students may complete the academic and clinical requirements leading to the Vocational Rehabilitation Therapy certificate issued by the Veterans Administration of the United States Government. This certification requires the completion of a bachelor's degree with an industrial technology major and 280 hours of clinical training in a veterans hospital. Consult an adviser in the Department of Industrial Technology for more detailed information.

## Courses

### LOWER DIVISION COURSES

**115. Industrial Plastics (3) I, II**
Six hours of laboratory.
Production methods, mechanical and physical properties, composition of plastics. The basic processes: molding, casting, thermoforming, reinforcing and foaming.

**121. Principles of Technical Drawing (3) I, II**
Six hours of laboratory.
Parallel and perspective projection: emphasis on sketching technique for engineering, science, and technology. Orthographic and axonometric projection, conventions, and standards.

**131. Industrial Metalworking (3) I, II**
Six hours of laboratory.
Exploration of basic materials and methods employed by industry to produce metal products. The attainment of knowledge and skills involved in the primary fabrication techniques of sheet metal, bench metal, art metal, foundry, forging, machining, and welding.

**140. Introduction to Photography (3) I, II**
Six hours of laboratory.
Photographic optics and chemistry; nature of light and image formation; photographic emulsions, exposure and development; composition and lighting. Provides fundamentals for advanced courses in technical, commercial, creative and other areas of photography. Not open to students with credit in Journalism 350.

**151. Industrial Woodworking (3) I, II**
Six hours of laboratory.
Introduction to wood technology and ecology; safe practices; fasteners; adhesives; abrasives; science of working with wood.

**161. DC and AC Circuit Analysis (3) I, II**
Six hours of laboratory.
Prerequisite: Mathematics 140 or two years of high school algebra.
Planning, designing, constructing, and experimenting to develop skills and acquire knowledge in the electronics field. Basic principles, their application to modern electronic equipment, and correct use of test equipment.

**171. Power Mechanics (3) I, II**
Six hours of laboratory.
Introduction to various forms of power transmission. Emphasis on small internal combustion engines, alternative fuel, consumer product research, and automotive preventive maintenance.

**181. Introduction to Graphic Communications (3)**
Six hours of laboratory.
Visual communications, design technology, theory of color development, papermaking and typography, and photographic reproduction.

**200. Introduction to Contemporary Industry and Technology (3) I, II**
Development of modern industry and technology with emphasis on historical and recent industrial changes, and the problems resulting from our technological society.

### UPPER DIVISION COURSES (Intended for Undergraduates)

**303. Manufacturing Materials and Processes (3)**
Prerequisites: Industrial Technology 115, 121, 131.
Fundamentals of manufacturing materials and processes with emphasis on economical production.

**305. Hydraulics and Pneumatics for Manufacturing (3) II**
Prerequisites: Chemistry 100 or higher, Physics 107.
Basic hydraulics and pneumatic principles, circuit design, and application for manufacturing processes.

**306. Manufacturing Control Systems (3) I**
Prerequisites: Industrial Technology 121 and 161.
Control of automated processes and associated electromechanical hardware components.

**315. Plastics Product Design and Development (3) I**
Six hours of laboratory.
Prerequisite: Industrial Technology 115.
Production systems for plastics manufacturing based on properties of thermoplastics, thermosetting plastics, and composite materials; use of models, master models and prototypes in product design and development.

**320. Computer Assisted Drafting (3) I, II**
Six hours of laboratory.
Prerequisite: Industrial Technology 121 or Mechanical Engineering 190.
Micro based CAD, including selection of software and hardware, DOS commands, and system management. Cadkey used to demonstrate relationship between CAD functions such as data entry, manipulation, and documentation; to engineering drawing projection theory, standards, practices.

**321. Technical Drawing for Industry (3) I, II**
Six hours of laboratory.
Prerequisite: Industrial Technology 121.
Technical drawing skills, including board and CAD, used in industry. Planning and layout of working drawings using ANSI standards with emphasis on dimensioning and geometric tolerancing.

**331. Machine Tool Processes (3) II**
Six hours of laboratory.
Prerequisite: Industrial Technology 131.
Study of machine tools as a manufacturing medium emphasizing precision measurement, standards, tolerance and inspection methods.





**341. Photographic Sensitometry (3) II**
Six hours of laboratory.
Prerequisite: Industrial Technology 140.
Technical aspects of photography; sensitometry, the densitometer, advanced exposure and development theory, the zone system, specialized development and printing techniques, application of quality control in the photographic process.

**351. Machine Woodworking (3)**
Six hours of laboratory.
Prerequisite: Industrial Technology 151.
Experience in the use of selected woodworking machines which offer opportunities for the development of construction activities in wood. Emphasis on creative design and sound safety practices.

**361. Solid State Circuits (3) I, II**
Six hours of laboratory.
Prerequisite: Industrial Technology 161 or Physics 196.
Solid state circuits through design and experimentation. Application of solid state principles for use in control, communication, and computing circuits.

**371. Power Systems (3) I**
Six hours of laboratory.
Prerequisite: Industrial Technology 171.
Sources of power, power transmission and utilization. Emphasis on internal combustion engine design to include theory of operation, system design, and mathematical principles.

**381. Image Development and Assembly (3)**
Six hours of laboratory.
Prerequisite: Industrial Technology 181.
Advanced elements of visual design, theory of computerized typesetting and desktop publishing, theory of line and halftone photography, color separation and scanning, and multicolor image assembly.

**396W. Industrial Reporting and Documentation (3) I, II**
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:** Grade report or copy of transcript.
Technical writing specifically designed for the discourse skills of the industrial community. Included are ECOs, operational manuals, equipment specifications, observation reports, and QA traceability.

**416. Thermoplastics (3) II**
Six hours of laboratory.
Prerequisites: Industrial Technology 115 and Chemistry 100 or higher.
Composition and selection of materials; evaluation of physical and mechanical properties of various thermoplastics; special techniques for processing and production of thermoplastics.

**422. Architectural Drafting (3) I**
Six hours of laboratory.
Prerequisite: Industrial Technology 121.
Development of architectural drawing skills and understanding of contemporary residential design.

**432. Welding Processes and Procedures (3) II**
Six hours of laboratory.
Prerequisite: Industrial Technology 131.
A study of the basic welding processes with emphasis on physical principles and properties, inspection methods and equipment operations.

**443. Problems in Photography (3) II**
Six hours of laboratory.
Prerequisite: Industrial Technology 341.
Research in technical and practical areas of photographic materials and processing as they relate to commercial, creative, and other areas of photography.

**444. Color Photography (3) I**
Six hours of laboratory.
Prerequisite: Industrial Technology 341.
Theory and practical applications of color photographic materials and processes. Techniques of exposure, composition, and lighting of illustrative industrial and commercial subjects.

**452. Wood Manufacturing Applications (3)**
Six hours of laboratory.
Prerequisite: Industrial Technology 351.
Course designed to increase professional skills, craftsmanship, advanced technical skills in equipment maintenance, patternmaking, design analysis, and upholstery.

**462. Fabrication of Electronic Equipment (3) II**
Six hours of laboratory.
Prerequisite: Industrial Technology 161.
Fabrication techniques for manufacturing electronic equipment. Includes printed circuit layout, chemical milling, thermal considerations, schematic documentation, safety, and exterior finishing.

**464. Basic Digital Computers (3) I**
Six hours of laboratory.
Prerequisite: Industrial Technology 161 or Electrical Engineering 203.
Functions of circuitry as applied to switching, timing and pulse circuits. Basics of computer digital logic. Machine programming.

**472. Power System Diagnosis (3) II**
Six hours of laboratory.
Prerequisite: Industrial Technology 371.
Theory and application of various types of diagnostic testing equipment, emphasis on computer controlled engines, and power system analysis.

**482. Graphics Reproduction and Packaging (3)**
Six hours of laboratory.
Prerequisite: Industrial Technology 181.
Advanced graphics communication technologies affecting print imagery, reproduction technology, consumer product development, print finishing and packaging. 492. Teaching Methods in Industrial and Technology Education (3) II
Study of methodology needed to teach industrial subjects. It is recommended that this course be taken prior to student teaching.

**492. Teaching Methods in Industrial and Technology Education (3) II**
Study of methodology needed to teach industrial subjects. It is recommended that this course be taken prior to student teaching.

**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.

**498A-498B. Senior Project (2-2) I, II**
Prerequisite: Consent of instructor.
A prearranged and supervised investigation of a research project selected from topics in the major. A single project will be completed in this two-course sequence. Results will be presented in an oral and written report.

**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. Facilities Planning (3) II**
Prerequisites: Industrial Technology 121, 200, 320.
Space considerations, flow of materials, materials handling, specifying process equipment, and overall planning of industrial facilities with regard to theoretical principles of CIM, FMA, and JIT.

**517. Thermosetting Polymers and Composites (3) II**
Six hours of laboratory.
Prerequisites: Industrial Technology 115 and Chemistry 100 or higher.
Composition and selection of materials; evaluation of physical and mechanical properties; and product development and manufacturing.

**523. Technical Presentations in Computer Assisted Drafting (3) II**
Six hours of laboratory.
Prerequisite: Industrial Technology 320.
Advanced computer assisted drafting applications in projections theory and analysis of presentation drawings for engineering and illustrations. Axonomitric and perspective projection, rendering, and shading techniques in product design.

**533. Applied Metal Forming Operations (3) I**
Six hours of laboratory.
Prerequisite: Industrial Technology 131.
Theory of conventional and high energy industrial forming processes augmented with laboratory forming experiences.

**542. Commercial/Industrial Photography (3) I**
Six hours of laboratory.
Prerequisites: Industrial Technology 140 and upper division standing.
Theory and laboratory techniques, composition and lighting with emphasis on large format photography. Industrial applications, architecture, illustrative, advertising, portraiture, and commercial photography.

**553. Residential Building Construction (3)**
Six hours of laboratory.
Prerequisite: Industrial Technology 351.
Residential building construction principles encompassing the study of state and national building codes, foundation systems, framing techniques, and waterproofing applications. Estimating labor and material costs.

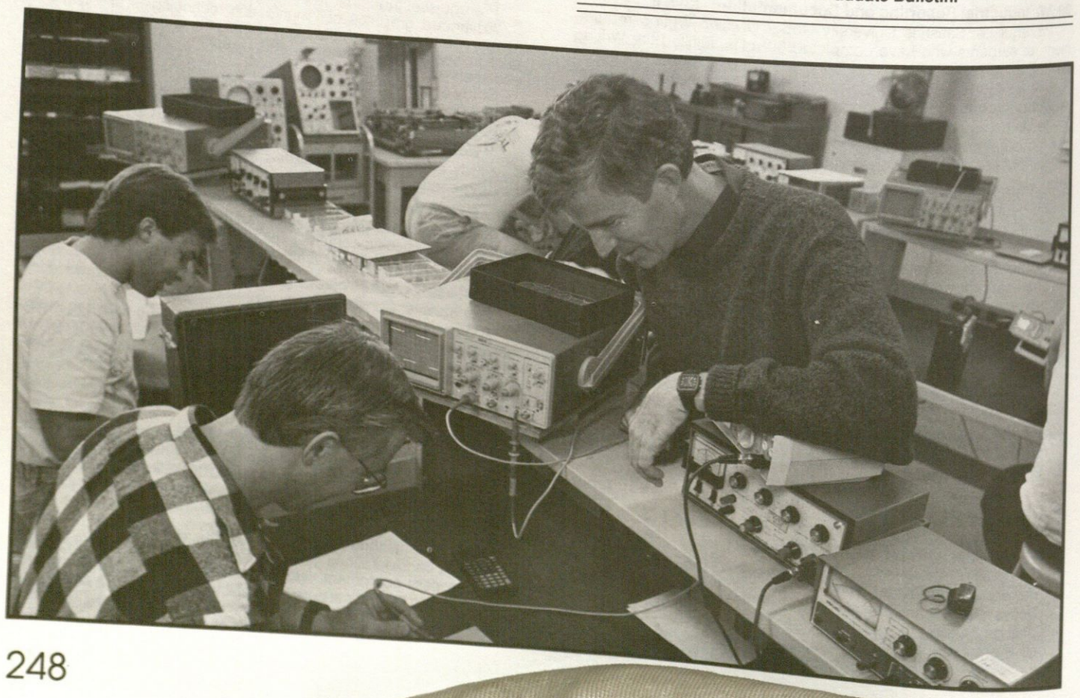
**563. Industrial Control Circuits (3) II**
Six hours of laboratory.
Prerequisites: Industrial Technology 464 and Information and Decision Systems 180.
Analysis, theory, and application of electronic circuits used to interface digital computers to automated manufacturing equipment. Includes methods of feedback; ADAC; DAC; and sampling techniques.

**573. Power Systems Technology (3) II**
Six hours of laboratory.
Prerequisite: Credit or concurrent registration in Industrial Technology 371.
Power systems and technological innovations in education and power related industries. Emphasis on product development, testing, and reporting.

**583. Graphics Management and Marketing (3)**
Six hours of laboratory.
Prerequisite recommended: Industrial Technology 381.
Printing business practices, publication, and brokerage guidelines, graphics management and organizational theory, computer based bidding and estimating, and introduction to consumer packaging and development.

**596. Experimental Topics in Industrial Technology (1 or 2)**
Prerequisite: Consent of instructor.
Individual laboratory work on complex projects on an experimental basis. 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.**





# 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
Assistant Professor: 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 production and 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, 280, 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 280, may not be taken Cr/NC; the minimum grade in each class is C, except for Information and Decision Systems 280. **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-eight upper division units consisting of Information and Decision Systems 301, 302, 306, 383 or 384, 385, 396W, 406, 480, 492; Finance 323; Management 350, 405; Marketing 370; six units selected from Information and Decision Systems 407, 408, 483, 491; and three units selected from Information and Decision Systems 360, 383, 384, 391, 407, 408, 482, 483, 491.

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.

## Production and 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.** Information and Decision Systems 396W with a grade of C (2.0) or better.

**Major.** Thirty-six to thirty-seven upper division units consisting of Information and Decision Systems 301, 302, 360, 385, 461, 462; Finance 323; Management 350, 405; Marketing 370; and six to seven units selected from Information and Decision Systems 306, 366, 388, 407, 464, Accountancy 302, Management 452, 453, Mechanical Engineering 546*.

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.

* Additional prerequisites required.

## 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, 280, 306, 385, 480; and six units selected from Information and Decision Systems 383, 384, 388, 391, 396W, 406, 407, 482, 483, 491, 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.

**280. COBOL Programming (3) I, II**
Prerequisite: Information and Decision Systems 180.
Introduction to COBOL programming. Emphasis on coding techniques, file organization, and report preparation.

**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.
Statistical methods applied to business decision making.

**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**
Prerequisite: Approved upper division business major, business minor, or another approved major.
Systems development life cycle concept, with emphasis on analysis of requirements using structured methodology. Feasibility study, needs assessment, prototyping, application design alternatives.

**360. 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.

**366. Statistical Methodology for Business Research (3)**
Prerequisite: Information and Decision Systems 301.
Design and application of quantitative methods related to business research, with an applied emphasis on factorial analysis of variance, covariance, experimental design, multiple regression, research reporting, and analysis of methodology appearing in business literature.

**383. Advanced COBOL Programming (3)**
Prerequisites: Information and Decision Systems 280. Approved upper division business major, business minor, or another approved major. **Proof of completion of prerequisites required:** Copy of transcript.
Advanced application program development in COBOL emphasizing structured programming, table handling, and file access methods.

**384. Comparative Programming Languages (3) I, II**
Prerequisites: Information and Decision Systems 280. Approved upper division business major, business minor, or another approved major. **Proof of completion of prerequisites required:** Copy of transcript.
Basic principles of programming language syntax and semantics. Background for learning new programming languages; understanding of specific environments into which programming languages fit.

**385. Information Systems Software and Hardware Organization (3) I, II**
Prerequisite: Approved upper division business major, business minor, or another approved major.
Functional characteristics and organization of hardware components; assembly language programming concepts; principles and functions of operating systems; system software and control of applications program environment. Not open to students with credit in Information Systems 485.

**388. End-User Computing (3)**
Prerequisite: Credit or concurrent registration in Information and Decision Systems 385.
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.

**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 385, and credit or concurrent registration in Information and Decision Systems 480. **Proof of completion of prerequisites required:** Copy of transcript.
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 385. **Proof of completion of prerequisite required:** Copy of transcript.
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 385. **Proof of completion of prerequisite required:** Copy of transcript.
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.

**461. Operations Management (3)**
Prerequisite: Information and Decision Systems 302.
Use of tools for effective utilization of resources in manufacturing and service activities. Includes industrial engineering, project management, linear programming, waiting line models, learning curves, inventory models, and logistics.

**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 301 or 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.

**480. Data Management Systems (3) I, II**
Prerequisite: Information and Decision Systems 385.
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. Data Communications (3) I, II**
Prerequisite: Information and Decision Systems 385.
Data communication system components; common carrier services and local area networks; economic, legal and technical issues in distributed information processing; analysis and design of data communication network applications; management and control of distributed data processing environment.

**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.

**491. Advanced Data Management Systems (3)**
Prerequisite: Information and Decision Systems 480.
Database management concepts; logical database design and entity/relationship model. Relational databases: data normalization; user's view implementation; evolution of commercial DBMS products. CODASYL databases: efficiency and complexity. Issues in database administration, concurrency control, recovery from failure, functions of database administrator.

**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, Family Studies and Consumer Sciences (Child 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 424
*Telephone:* (619) 594-4236

**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 the Soviet Union 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 and the Soviet Union 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 from at least two departments in the humanities selected from History 518A-518B, Humanities 330, 331; 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, 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."

**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 430, 444, 520, 531, 580, 582, 583.

*Economics.* Required: Economics 341; and 12 units selected from 307, 320, 321, 341, 370, 401, 477, 489, 565.

*Geography.* Required: Geography 385 or 585; and 12 units selected from 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 321, 325, 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 350, 355, 406 or 407 (if not taken as a required course), 443, 455, 456, 457, 505, 527, 537, 543, 555.

# 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, Industrial Technology 171, Natural Science 351, 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.

## 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, 569, 571, 572, 574, 575, 576, 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, Religious Studies 340*; six units from History 473A, 473B and 574; and three units from Anthropology 474*, Political Science 363.

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 are required for these courses.





# International Business

In the College of Arts and Letters and the College of Business Administration

**OFFICE: Business Administration/Mathematics 431**
**TELEPHONE: (619) 594-5323**
**FAX: (619) 594-7738**

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 departments and programs: Accountancy, Asian Studies, Chinese, East European Studies, European Studies, Finance, French, German, Information and Decision Systems, Italian, Japanese, Latin American Studies, Management, Marketing, Portuguese, Russian, Spanish.

*Chair and Undergraduate Adviser:* Branan (French)

*Committee:* Adler (Economics), Butler (Management), Davies (History), Hergert (Management), Higurashi (Japanese), Salehizadeh (Finance), Teagarden (Management).

### Offered by International Business

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

Emphases in language: Chinese, French, German, Italian, Japanese, Portuguese, Russian, Spanish.

Emphases in regional/cultural studies: Asia, Central and Eastern Europe, Latin 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 eight emphases in foreign language (chosen from Chinese, French, German, Italian, Japanese, Portuguese, Russian, Spanish) and one of four emphases in regional/cultural studies (chosen from Asia, Central and Eastern Europe, Latin 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.

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 Superieure 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 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)

French 100A, 100B, 200A, 200C, 200D, 200E. (22 units)
German 100A, 100B, 200A, 200B, 200D, 211. (21 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):

*Asia:* Six units selected from Asian Studies 105, 106, 107 (recommended); History 120, 121 (recommended).

*Central and Eastern 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).

*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, 433. (9 units)
French 301, 422, and 423. (9 units)
German 301, 302, 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, 302; and 501 or 580 or 581. (9 units)
Spanish 301, 307, and 497. (9 units)

**III. Regional/Cultural Studies Emphasis** (choose one region)

*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@, 434@; 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 and Eastern 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; Political Science 393; Russian 305A, 305B; and six units selected from Russian 430, 501%, 555, 561, 563, 580%, 581%.

*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 306A, 306B, 441, 442, 491*, 493*, 515A, 515B, 520, 522, 524, 570, 571, 572; Women's Studies 310*, 580+.

*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, 524, 526, 527, 528; 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.

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* 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 101, 102, 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

**UPPER DIVISION COURSE**
**(Intended for Undergraduates)**

**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.



# Italian

In the College of Arts and Letters

**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.

**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)**

Prerequisite: Six units of 200-level Italian.

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

**OFFICE: Business Administration 327**
**TELEPHONE: (619) 594-5268**

**Faculty**
Chair: Underhill
Professor: Higurashi
Lecturers: Kitajima, Miyamoto

**Offered by the Department of Linguistics and Oriental Languages**
Minor in Japanese.

## 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.

## 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.







**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 joyo 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.)

**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

In the College of Professional Studies and Fine Arts

**OFFICE: Professional Studies and Fine Arts 325**
**TELEPHONE: (619) 594-6635**

Accredited by the Accrediting Council on Education for Journalism and Mass Communication.

### Faculty

Emeritus: Holowach, Odendahl, Sorensen, Whitney, Wimer
Chair: Broom
Professors: Broom, Brown, Buckalew, Dozier, Hartung, Wulfemeyer
Associate Professors: Lauzen, Mueller
Assistant Professors: Davis, Spevak
Adjunct: Freedman

### Offered by the Department

Master of Science degree in mass communication (in cooperation with other departments).
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.
Teaching major in journalism for the single subject teaching credential in English/journalism.
Minor in journalism.

## The Major

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 Department of Journalism 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

## Journalism Major

**With the B.A. Degree in Liberal Arts and Sciences**
**(Premajor Code: 06020) (Major Code: 06021)**

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 of 33 units.

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 department office for pre-minor requirements.

Students are required to achieve a passing score on the Department of 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 journalism major is designated as an impacted program and specific regulations related to admissions are imposed. Consult the department for regulations and admissions criteria.

### 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.** Departmental screening in Journalism 310 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 310, 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.** Departmental screening in Journalism 310 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 310; 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.** Departmental screening in Journalism 310 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 310, 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.** Departmental screening in Journalism 310 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 310, 470, 474, 475, and 502; 12 units of upper division electives.

## 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)**

**This curriculum will be replaced with a new program effective January 1, 1995.**

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.

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.

**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.** Departmental screening in Journalism 310 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.

**Credential Requirements.** A minimum of 45 units selected from four content areas. Some courses are required.

*Literature:* Twelve units to include either English 250A or 250B; either English 260A or 260B; either English 533, Comparative Literature 561, 562, or 563; three units selected from English 525, 526, Comparative Literature 270A, 270B.

*Composition:* Fifteen units to include English 100 and 500W; either English 200 or 280; six units selected from English 200, 280, 584W, Journalism 220, 320, 441.

*Linguistics:* Three units selected from Linguistics 101, 410, 420.

*Journalism:* Fifteen units selected from Journalism 200, 310, 326, 350, 443, 460, 463, 466, 470, 474, 475, 480, 481, 490, 502, 529, 585.

## Journalism Minor

The minor in journalism consists of 18-21 units in one of the following areas:

*Advertising:* Journalism 200, 220, 310, 460, 463, 465 and 466. (21 units.)

*News-Editorial:* Journalism 200, 220, 310, 320, 326, and one of the following: 441, 502 or 529. (18 units.)

*Public Relations:* Journalism 200, 220, 310, 480, 481, and 585. (18 units.)

*Radio-TV News:* Journalism 200, 220, 310, 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.

## Courses

### 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 departmental 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.

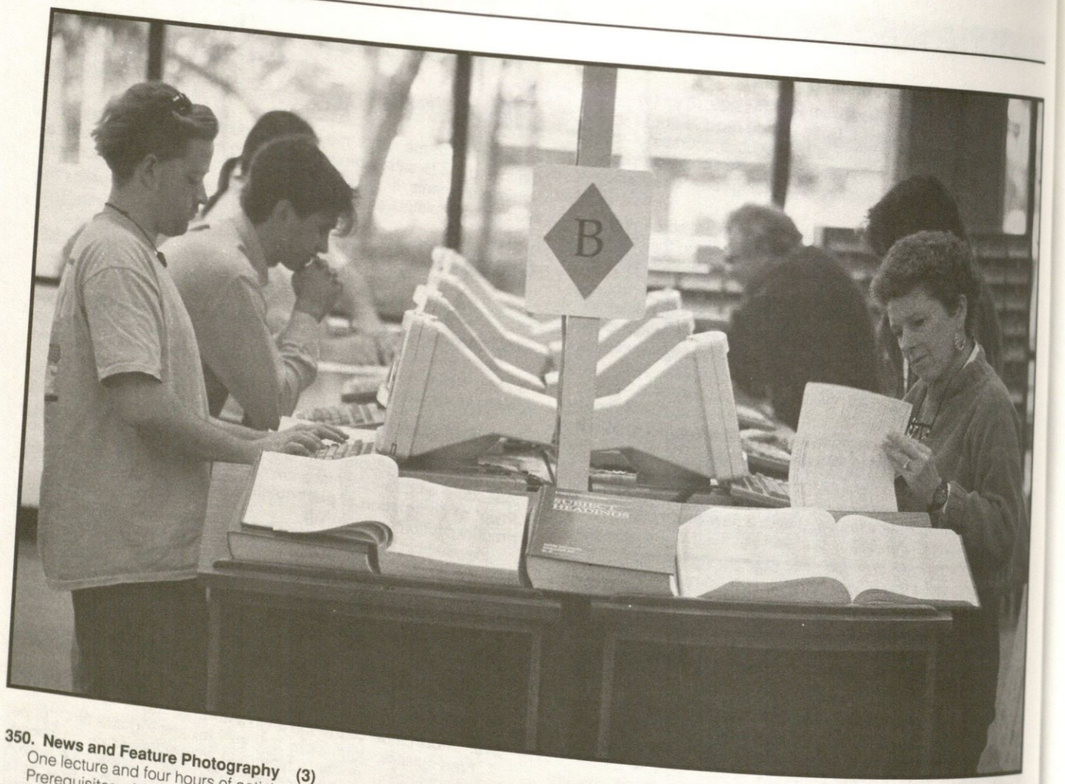
### UPPER DIVISION COURSES
### (Intended for Undergraduates)

**NOTE:** PROOF OF COMPLETION of prerequisites required for all upper division courses: GSP test score as applicable and copy of transcript.

**310. Information Gathering and Reporting (3)**
Prerequisites: Journalism 220 with minimum grade of C; upper division standing; ability to type; and satisfactory score on departmental 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.

**320. Public Affairs News Reporting (3)**
One lecture and four hours of activity.
Prerequisites: Journalism 310 with minimum grade of C; upper division standing; ability to type; and satisfactory score on departmental 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)**
One lecture and four hours of activity.
Prerequisites: Journalism 310 with minimum grade of C; upper division standing; ability to type; and satisfactory score on departmental 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.




**350. News and Feature Photography (3)**
One lecture and four hours of activity.
Prerequisites: Journalism 220 with minimum grade of C; upper division standing; ability to type; and satisfactory score on departmental grammar, spelling, and punctuation test. Limited to journalism majors and minors, major code 06021.
Principles and practice of photojournalism, including fundamentals of camera operation, composition, developing and printing of black and white photographs for publication. News values in photography. Not open for credit to students with credit in Industrial Arts 140.

**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 departmental 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)**
Prerequisites: Journalism 310 with minimum grade of C; upper division standing; and satisfactory score on departmental 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)**
Two lectures and three hours of activity.
Prerequisites: Journalism 310 and 441 with minimum grade of C; upper division standing; and satisfactory score on departmental 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)**
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)**
One lecture and four hours of activity.
Prerequisites: Journalism 310 with minimum grade of C and 460; upper division standing; ability to type; and satisfactory score on departmental 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)**
Prerequisites: Journalism 310 with minimum grade of C and 460; upper division standing; ability to type; and satisfactory score on departmental grammar, spelling, and punctuation test.
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)**
Prerequisites: Journalism 463, and Journalism 465 or Telecommunications and Film 540; upper division standing; and satisfactory score on departmental 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)**
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 310; upper division standing; ability to type; and satisfactory score on departmental grammar, spelling, and punctuation test.
Application of radio and television newswriting 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)**
One lecture and six hours of activity.
Prerequisites: Journalism 310 with minimum grade of C and 470 or Telecommunications and Film 310; upper division standing; ability to type; and satisfactory score on departmental 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)**
One lecture and six hours of activity.
Prerequisites: Journalism 474 with minimum grade of C; upper division standing; and satisfactory score on departmental 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)**
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)**
One lecture and four hours of activity.
Prerequisites: Journalism 310 with minimum grade of C and 480; upper division standing; ability to type; and satisfactory score on departmental 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**
Prerequisites: Upper division standing; consent of instructor; satisfactory score on departmental 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 departmental grammar, spelling, and punctuation test.
Individual study or project, normally in a research area selected by the student. Maximum credit three units.

**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)**
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)**
Prerequisites: Journalism 481; upper division standing; and satisfactory score on departmental grammar, spelling, and punctuation test.
Current public relations practices and problems in a wide variety of commercial, industrial, financial, governmental, cultural and social organizations.

**GRADUATE COURSES**
**Refer to the Graduate Bulletin.**

# 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, 487, 488, 574; Religious Studies 301, 330. Judaic Studies 496, 580; 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.

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.

> "Observation more than books, experience rather than persons, are the prime educators."
>
> —*A. Bronson Alcott* (1877)

## 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.

### UPPER DIVISION COURSE
### (Also Acceptable for Advanced Degrees)

**580. Special Topics in Judaic Studies (1-3)**
Prerequisite: Upper division standing.
Special topics appropriate to the interdisciplinary study of the modern Jewish experience. Credit will vary depending on the scope and nature of the topic. May be repeated with different content. Maximum credit six units.





# 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), Castro (Castillo) (Spanish), Christensen (Spanish), Clement (Economics), Concepción (Public Administration and Urban Studies), Cunniff (History), Del Castillo (Mexican American Studies), Espín (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), Nericcio (English and Comparative Literature), Rodriguez (Mexican American Studies), Segade (Spanish), Silverman (Portuguese), Stromberg (Foreign Language Laboratory), Vanderwood (History), 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, with a minimum grade point average of 2.0 for all work attempted (5-22 units); 12 units selected from Anthropology 101, Economics 101 and 102, Geography 101, History 115A-115B, Latin American Studies 101, Political Science 101 and 103.

**Foreign Language Requirement.** Portuguese 101 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, 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, 350A, 355, 375, 376, 380, 498, 597; Political Science 361, 482, 566, 567, 568, 577; Portuguese 535; Public Administration and Urban Studies 580 (when relevant); Sociology 450*, 555*, 556*; Spanish 406A-406B*, 441*, 442*, 515A-515B, 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 306A-306B, 515A-515B, 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 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 (when relevant), 529, 582 (when relevant); Art 561, 562; Comparative Literature 445; Economics 336, 365, 464, 483, 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, 350A, 355, 375, 376, 380, 498; Music 596; Political Science 361, 482, 566, 567, 568, 577; Portuguese 535; Public Administration 580 (when relevant); Sociology 450 (when relevant), 555, 556 (when relevant); Spanish 406A-406B, 441, 442, 515A-515B, 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 Autaonoma 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 Autaonoma 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) I, II Cr/NC**
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.





# Liberal Studies

For further information regarding Liberal Studies, consult the following:

| *OFFICE LOCATIONS/TELEPHONE NUMBERS* | |
|---|---|
| EMPHASIS IN THREE DEPARTMENTS..... | Administration 223<br>(619) 594-5841 |
| EMPHASIS IN EDUCATION ..... | University Advising Center<br>Student Services 1641 |

### Faculty (Emphasis in Education)

Allison (English), Bar-Lev (Linguistics), Dunn (History), Fisher (Natural Science), Goldberg (Natural Science), 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), Harvey, A.C. (Drama), Indermill (University Advising Center), Ingmanson (Teacher Education), Kitano (Special Education), McKenzie, T. (Physical Education), Mehaffy (Teacher Education), Pacheco (Policy Studies in Language and Cross-Cultural Education), Roeder, P. (Natural Science), Russum (Imperial Valley Campus), Scott (Undergraduate Studies), 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 Examination. Additional requirements for admission to the credential program are listed in this catalog under Policy Studies and Teacher Education.

## 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; English 100; Linguistics 100; Mexican American Studies 111B.
2. *Composition* – Three units selected from Africana Studies 200; English 200; Linguistics 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, 102, 110A; 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, 106.
12. *American Institutions or Social Science* – Six units selected from Economics 100, 101, 102; Sociology 101; or General Education American Institutions courses (see section of catalog on "Graduation Requirements" for approved list). 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, 105, 120.
15. *Values and Ethics* – Three units selected from Philosophy 101, 102, 103; Religious Studies 101, 102.

***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 Africana, American Indian, Mexican American, or Women's Studies courses listed below. (*)

Africana Studies 120, 200, 140, 170A, 170B, Education 451, Mexican American Studies 111A, 111B, 120A, 120B, 141A, 141B, and Women's Studies 341A and 341B *do not* meet this requirement.

***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, 412B, 412C.
26. *Science Elective* – Three units selected from:
    *Life*: Biology 315, 319, 324, 330, 336, 339, 454.
    *Physical:* Physics 201 (restricted to students in Communicative Disorders specialization), Physics 301, Astronomy 301.
    *Earth:* Geological Sciences 301, 303, Oceanography 320.
    *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 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*; or any upper division American Institutions course (if not completed at the lower division level).

***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* – Completion of the Liberal Studies Assessment Portfolio. Liberal Studies 498 (optional).

***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, 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 through 452.

**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 336L, or 410; Biology 330 and 330L, or 319 (recommended for those without 101, 101L); Biology 499 Research (1-2 units).

**Classics**

Classics 310, 320, 330, 340.

**Communicative Disorders**

Twelve units selected from Communicative Disorders 350, 358*, 458*, 558*, 568.

* Optional labs are available for all sign language courses.

**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.

**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; Drama 480.

Producing Plays in the Classroom Focus: (Additional prerequisite: Drama 240A or 240B - both preferred.) Drama 310, 315, 359* or 515, 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.

**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.

**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 and 309. Six units selected from Mathematics 302*, 303, 357*

* Mathematics 121 acceptable as prerequisite.

**Mexican American Studies**

Twelve units selected from Mexican American Studies 310*, 320, 324, 335, 350A-350B, 376, 464*, 480*.

* Highly recommended.

**Music**

Prerequisites: Music 102 and 151.

Music 343, 345; three units selected from Music 351A-351F, Africana Studies 480, Mexican American Studies 310; two units* selected from Music 369, 370, 375, 376, 380, 385, 389, plus one unit selected from Music 340**, 420.

* Consent of instructor required. Previous experience playing an instrument is required.
** Prerequisite waived for Emphasis in Education majors.

**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*, 347A*, 347B*, 348, 398 (2 units), 443.

* Prerequisites 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.







# Linguistics

In the College of Arts and Letters

**OFFICE: Business Administration 327**
**TELEPHONE: (619) 594-5268**

**Faculty**

Emeritus: Elgin, Frey
Chair: Underhill
Professors: Bar-Lev, Donahue, Johns, Underhill
Associate Professors: Choi, Kaplan, Poole, Robinson, 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 population groups 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.

## 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)**

**A new program will be in effect January 1, 1995.**

For a description of the single subject teaching credential in English which is available to linguistic majors, refer to this section of the catalog under English.

## 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, 560; 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. Child 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 subcategories; 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 3428**
**TELEPHONE: (619) 594-5306**

A Member of the American Assembly of Collegiate Schools of Business.

### Faculty

Emeritus: Atchison, Mitton, Pierson, Robbins, Srbich
Chair: Hergert
Professors: Belasco, Brady, Butler, De Noble, Ghorpade, Hampton, Hergert, Marino, Wright
Associate Professors: Ehrlich, Hatch, 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. (27-30 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-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, 456, 460; and six units selected from any upper division course in Management, Accountancy, Economics, Finance (except Finance 317), Information and Decision Systems, Marketing, or Africana 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, insurance, 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.

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 COURSES

**150. The Business Enterprise (3) I, II**
The business enterprise and its function in society; interrelations of ownership, entrepreneurship, and administration; interactions within the firm and within and among industries.

**202. Business Professions (1) I, II Cr/NC**
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. (Formerly numbered Business Administration 402.)

### 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.

**355. American Business History (3)**
Prerequisite: Management 350.
Development of the American business system. Changes in the management and structure of business organizations and the role of business in American society.

**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 (1-3) I, II Cr/NC**
Prerequisite: Consent of faculty adviser.
Students to be assigned to business firms to work under the joint supervision of the business firm's supervisor and the 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)**
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) I, II**
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.

**456. Conceptual Foundations of Business (3) I, II**
Development and evolution of values and ideas characteristic of the business society: individualism, materialism, rationality, technology, and other major components of business ideology. Capitalism/socialism debate. Majors in the College of Business Administration may not use this course to satisfy requirements for General Education.

**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) I, 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) I, II**
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) I, II**
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 3229**
**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. (27-30 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-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, 477, 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, 477, 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.

**477. Social Sector 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.
Marketing strategy transfer and applications to social, political, and governmental issues, concepts, programs, organizations, and personalities.

**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.

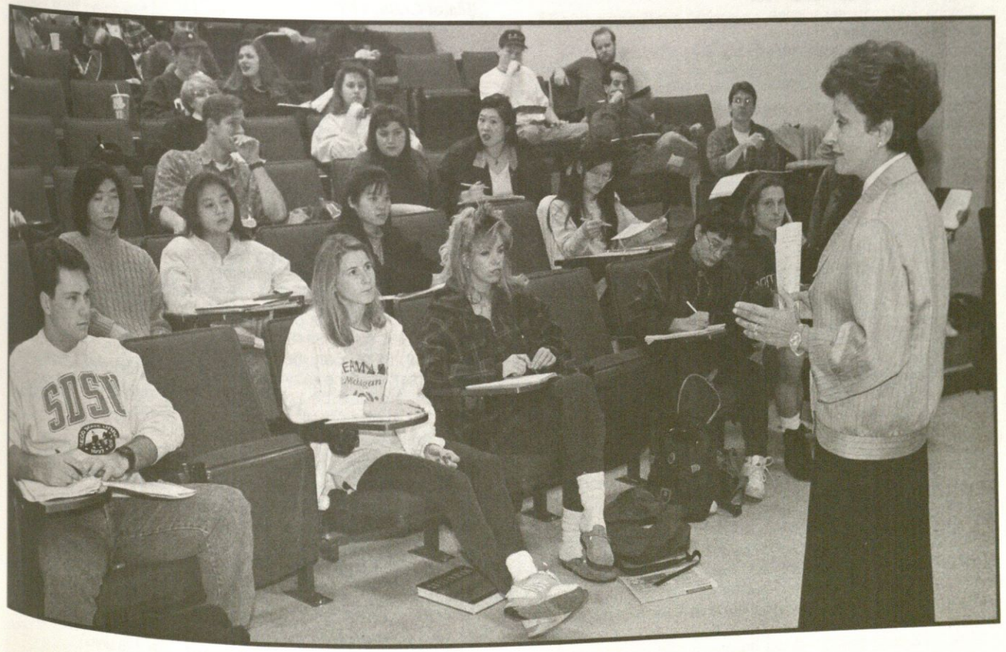
**479. Strategic Marketing Management (4) I, II**
Prerequisites: Marketing 371 and 470 with a minimum grade of (2.0) or an average of 2.0 in both courses. Completion of lower division courses required in the major or minor. **Proof of completion of prerequisites required:** Copy of transcript.
Strategic 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: Becker, Bell, Branstetter, Bryant, Deaton, 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, Drobnies, Elwin, Garrison, Geveci, Golbeck, Grone, Hager, Howard, Lesley, Lui, Lutz, Mahaffy, Marovac, McLeod, Moser, Park, Pierce, Ross, Salamon, Saltz, Short, Sowder, J., Sowder, L., Swiniarski, Thompson, P., Villone, Vuskovic

Associate Professors: Burdick, Castillo, Dunster, Eckberg, Flores, Hintzman, Hui, Kirschvink, Lopez, Macky, Marcus, Springer, Steffey, Stewart, Thompson, A., 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.

Emphasis in statistics.

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 considered a discipline in its own right as well as the language of the sciences. Because of the broad scope, the Department of Mathematical Sciences offers a variety of degrees and emphases designed to provide several blends of mathematics and specialties to the student.

The study of mathematics prepares students to solve problems. In recent years, the line between pure and applied mathematics has become blurred, and the applications of mathematics have grown enormously.

Mathematics graduates are employed as teachers; systems analysts, who develop and implement business and other systems for management; marketing and sales persons, specializing in business systems; and statisticians.

## 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 337 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 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.

### Emphasis in Statistics
**(Major Code: 17021)**

**Preparation for the Major.** Mathematics 150 and 151; and 245, 250, 252, 254, Computer Science 106 or 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 in mathematics to include Mathematics 350A, 350B, 534A, 551A, 551B, 554A; at least twelve units from Mathematics 336, 337, 521A, 524, 531, 532, 533, 534B, 537, 550, 553; and six 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

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.

## 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.

**249. Introduction to Biometry (3)**

Prerequisite: Open only to graduate students in the Graduate School of Public Health.

Mathematical probabilistic and statistical principles and methods relevant to biometry. Course cannot be used as part of the major or minor in mathematical sciences or in General Education.

**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, Gauss 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.

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, the divergence and Stoke's theorem and related integral theorems. Matrix analysis, eigenvalues and eigenvectors, diagonalization. Introduction to linear ordinary differential equations.

**342B. Methods of Applied Mathematics II (3) I, II**

Prerequisite: Mathematics 342A.

Laplace transform and power series techniques for ordinary differential equations, Legendre polynomials, Bessel functions, solution of second-order lineary partial differential equations by means of separation of variables, Fourier series, Sturm-Liouville theory, orthogonal expansions.

**342C. Methods of Applied Mathematics III (3) II**
Prerequisite: Mathematics 342B.
Complex variables, residue theorem and application, Fourier transform and its application, relationship with the Laplace transform, Green's functions.

**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. (Formerly numbered Mathematics 314.)

**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 Mathematics Literature (1)**
Prerequisite: Credit or concurrent registration in the upper division mathematics course in which readings are to be undertaken.
Individually directed readings in mathematics 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)**

**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. Not open to students with credit in Mathematics 520A-520B.

**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.

**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, Bilterman, Fitz, Hoyt, Lybarger, Morgan, Rao, Stone
Chair: Pinto
Professors: Craig, Hussain, Mansfield, Murphy, Ohnysty, Pinto
Associate Professors: Bailey, Güven, Lowrey, Thompson
Assistant Professor: Bhattacharjee

**Offered by the Department**

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 Analytical Reasoning:** 12 units
- A. Written Communication (6 units to include):
  1. Composition (3 units)
  2. Intermediate Composition (3 units)
- B. Oral Communication (3 units)
- C. Logic, Mathematics, Statistics (3 units) applicable to General Education
  Engineering students will take Mathematics 150.

**II. Foundations:** 26 units
- A. Natural Sciences (14 units to include):
  1. Life Sciences (3 units)
  2. Physical Sciences (11 units)
     Engineering students will take Chemistry 200 which includes a laboratory.
     Physics 195
     Physics 196
- 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 things work, making things work better, and creating ideas for doing things 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. 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.







### 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 |
| | | General Education | 3 |
| | 19 | | 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.

*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**
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.

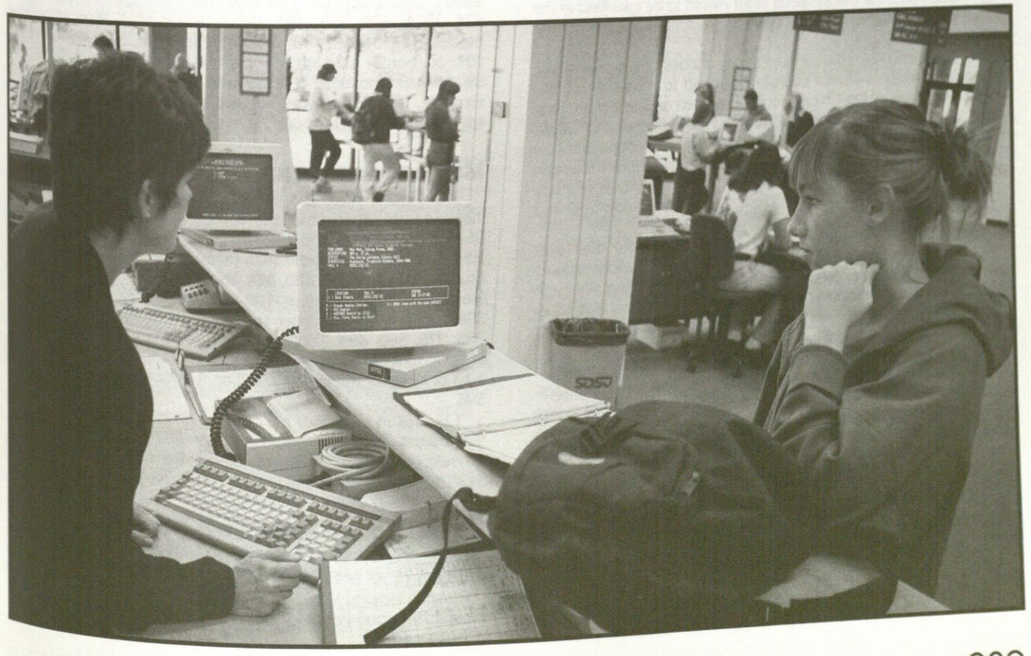
**582. Thermal Environmental Engineering (3)**
Prerequisite: Mechanical Engineering 470.
Psychrometrics. Mass transfer. Two-phase flow. Heat transfer. Thermoelectric refrigeration. Change of phase.

**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 Magadalena 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 110A-110B. (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 110A-110B 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 Writing100 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) II**
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) II**
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) I**
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 Jarocha (music of Veracruz), boleros (romantic music), musica Nortena (music of Northern Mexico). Emphasis on cultural context, style, and techniques. (Formerly numbered Mexican American Studies 314.)

**314B. Rondalla II (3) II**
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 (Pedagodia, 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) I, II**
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) II**
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**
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) I, II**
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, Dutchyshyn, Smith, Spiece

**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 $1,000 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 on-campus courses. 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 $100 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

**91. Leadership Laboratory I (1)**
One hour and thirty minutes of activity.
Prerequisite: Concurrent registration in Military Science 100A or 100B.
Application of individual military tasks and leadership skills to prepare cadets for leadership positions in cadet corps. Emphasis on performance of basic military tasks. Maximum credit two units. Credit earned in this course not applicable to a bachelor's degree.

**92. Leadership Laboratory II (1)**
One hour and thirty minutes of activity.
Prerequisite: Concurrent registration in Military Science 210 or 211.
Application of individual military tasks and leadership skills appropriate to a team leader and squad leader to prepare cadets for higher level leadership positions in cadet corps. Emphasis on performance in these leader roles which includes direct supervision of 5-10 cadets. Maximum credit two units. Credit earned in this course not applicable to a bachelor's degree.

**93. Leadership Laboratory III (1)**
One hour and thirty minutes of activity.
Prerequisite: Concurrent registration in Military Science 301 or 302.
Application of individual military tasks and leadership skills appropriate to a platoon leader and company commander to prepare cadets for higher level leadership positions in cadet corps. Emphasis on performance in these leader roles which includes direct supervision and instruction of 25-30 cadets. Maximum credit two units. Credit earned in this course not applicable to a bachelor's degree.

**94. Leadership Laboratory IV (1)**
One hour and thirty minutes of activity.
Prerequisite: Concurrent registration in Military Science 410 or 411.
Application of individual military tasks and leadership skills appropriate to cadet battalion command and staff positions to prepare cadets for leadership positions in the US Army. Emphasis on performance in these leader roles which includes planning and supervising all cadet training, and evaluating cadet leadership performance. 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) (Offered only in Extension)**
Prerequisite: Sophomore standing.
Six-week field training through Extension 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, Rohfleisch, Rost, Smith, Snider, Springston
Chair: Chambers
Professors: Almond, Barra, Bruderer, Chambers, Dutton, Kolar, Logan, Meadows, Mitchell, O'Donnell, Peterman, Sheldon, Ward-Steinman, Yates, Yeager
Associate Professors: Follingstad, Hill, Liebowitz, Stauffer
Lecturers: 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
Early Instruments: Peterman
Bassoon: Michel
French Horn: Cable, Lorge
Trumpet: Price
Trombone: Friedrichs, Prindle, Yeager
Baritone Horn: Dutton
Tuba: Dutton
Percussion: Mitchell, Plank
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, Eaton, O'Donnell

**Offered by the Department**
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 Department of Music 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 department 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 department 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 Department Student Handbook for more details.

6. Attendance at and performance in recitals is a requirement of all music majors as set forth in the department recital regulations.

Refer to the Music Department Student Handbook for detailed information.

## Electives in Music – Non-Majors

The Music Department 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, 115A, 115B, 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); 115A, 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 Department of Music, 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.** 38-39 upper division units to include Music 347; and one unit selected from Music 348 or 349 (Music 347, 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 departmental 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)**

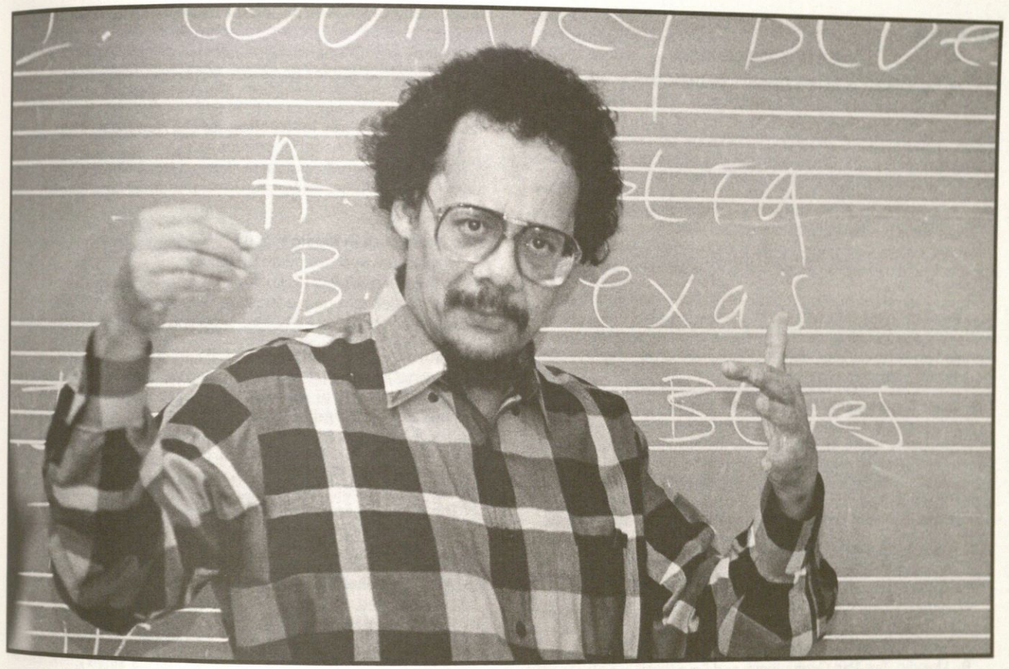
All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education.

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); 115A, 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 chair of the Department of Music.
3. Prior to the start of performance studies at San Diego State University, students are required to take a preliminary audition conducted by Department of 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 Department of Music 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, 115A, 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) I, II Cr/NC**
Preparation for individual solo performances and attendance at a minimum of 12 concerts or recitals in accordance with departmental 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.

**115A. 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.

**115B. Voice – Elementary Class Instruction (1) I, II**
Two hours.
Prerequisite: Music 115A with a grade of C (2.0) or better and concurrent registration in Music 185.
Observation of individual or group lessons; critiques and discussion; performance in class.

**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.

**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.

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### 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. Symphonic Band (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.

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**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 departmental 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. (Formerly numbered Music 250.)
**A.** Keyboard
**B.** Voice
**C.** Woodwinds
**D.** Brass
**E.** Percussion
**F.** Strings
**G.** Classical Guitar
**H.** Harp
**I.** Jazz Instruments
**J.** Medieval or Renaissance Instruments
**K.** Non-Western Instruments
**L.** Composition

**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.

**260. Introduction to the Alexander Technique (2)**
One lecture and two hours of activity.
Class instruction and individual laboratory work in neuromuscular balance and coordination in artistic performance. Maximum credit four units.

**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) I, II Cr/NC**
Preparation for individual solo performances and attendance at a minimum of 12 concerts or recitals in accordance with department 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 multitrack 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 department 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. Symphonic Band (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 departmental 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. (Formerly numbered Music 450.)

**A.** Keyboard
**B.** Voice
**C.** Woodwinds
**D.** Brass
**E.** Percussion
**F.** Strings
**G.** Classical Guitar
**H.** Harp
**I.** Jazz Instruments
**J.** Medieval or Renaissance Instruments
**K.** Non-Western Instruments
**L.** Composition

**452A-452B-452C. History of Music (3-3-3) I, II**
Prerequisites: Music 158B is prerequisite to 452A and 452B. Music 258B is prerequisite to 452C.
Chronological development of musical art and forms from Middle Ages to present. Analytical score study and assigned recordings. Familiarity with musicological resources through individual assignments. Music 452A-452B-452C to be offered for the last time during academic year 1994-95.

**A.** Music from antiquity to 1600 (Formerly numbered Music 552A.)
**B.** Music of the Baroque Era and Classical Period: 1600 to 1800 (Formerly numbered Music 552B.)
**C.** Music of the Romantic Period and Twentieth Century: 1800 to present

**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 department faculty.

**499. Special Study (1-3) I, II**
Prerequisite: Consent of the department chair.
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.

**510. Advanced Electronic Music (3)**
Two lectures and three hours of laboratory.
Prerequisite: Music 310 with a grade of C (2.0) or better.
Complex waveform generation, remote voltage control generation, and historic aspects of electronic music.

**511. Advanced Electronic Music Composition Laboratory (1) I, II**
Three hours of laboratory.
Prerequisites: Music 510 and consent of instructor.
Discussion and presentation of independent electronic music works in progress. Maximum credit four 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. Symphonic Band (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. (Formerly numbered Music 580.)

**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
Chair: Fisher
Professors: Feher, Fisher
Associate Professor: Wallace

**Offered by the Department**

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, 230; 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; Astronomy 305; 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. Natural Science 100 not open to students with credit in Natural Science 102 or 210A.

**UPPER DIVISION COURSES**
**(Intended for Undergraduates)**

**315. History of Science I (3) I, II**

Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences 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) I, II**

Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences 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) I, II**

Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences. 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. Recommended: Natural Science 100 or 102.

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.

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)**

Prerequisite: Teacher Education 453.

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: Marra
Assistant Professors: Baily, Deaton, Irza, Korman, Lawrence, Lewis, Roberson, 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 $100 per month while nonscholarship or college program students receive a $100 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.

> "Readers are plentiful; thinkers are rare."
>
> —*Harriet Martineau* (1837)

**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.



# Nursing

In the College of Health and Human Services

**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, Wozniak
Associate Professors: Fitzsimmons, Flagg, Freitas, Hadley, Loveridge, Morris, Novak, Reed, Saarmann, Shively, Walker
Assistant Professor: Moffett
Lecturers: Baldwin, Broom, Burt, Carson, Colwell, Connelly, 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.
2. **Prerequisite Courses.** The following courses, or their equivalents, and course grades are required for admission to the nursing program:
   a. Course grade requirement (C or better) in each of these required university courses: Biology 210, Chemistry 130, Psychology 101, Sociology 101.
   b. 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.** All students must demonstrate their writing competence on one of the following tests.
   a. By a score of 470 on the verbal portion of the Scholastic Aptitude Test.
   b. By a score of 22 on the American College Tests.
   c. By a score of 150 on the English Placement Test with score of 7 on essay portion.
   d. By a score of 8 on the SDSU Writing Competency Examination. Students who have not achieved the minimum score on the writing competency test must register in 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. **Change of Major.** Requests for change of major will be granted only on a space available basis.
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. **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.
5. **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.
6. **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.
7. **CPR Certification.** Students are required to be certified prior to admission. American Heart Association (AHA) certification, level C is required.
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.

9. **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.





## Sequence of Courses in the Nursing Curriculum

### First Year

| *First Semester* | *Units* | *Second Semester* | *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

| *First Semester* | *Units* | *Second Semester* | *Units* |
|---|---|---|---|
| American Institutions | 3 | FSCS 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

| *First Semester* | *Units* | *Second Semester* | *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 | | 16 |
| | 17 | | |

### Fourth Year

| *First Semester* | *Units* | *Second Semester* | *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 Analytical Reasoning:** 12 units
   A. Written Communication (6 units)
   B. Oral Communication (3 units)
   C. Statistics (3 units)

II. **Foundations:** 30 units
   A. Natural Science (15 units)
      1. Life Sciences (12 units) to be satisfied by:
         Biology 150 (4 units)
         Biology 210 (4 units)
         Biology 261 (4 units)
      2. Physical Sciences (3 units) to be satisfied by:
         Chemistry 130 (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 Analytical Reasoning 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 and 456 which, as electives, are exempt from this 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**
Three lectures and six 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
Assistant Professors: Ellis, Kelley, Matheny
Lecturer: Robasciotti

**Offered by the Department of Physical Education**

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; 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 postbaccalaureate 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 registraton 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. Not open to students with credit in Family Studies and Consumer Sciences 201. (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 19 upper division units to include Biology 515 or 517; Chemistry 501; 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.

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) I, II**

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) I, II**

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. Biological Oceanography
Biology 519. Aquaculture
Biology 520. Ichthyology
Chemistry 501. Chemical Oceanography
Economics 454. Economics of the Ocean
Geography 504. Coastal and Submarine Physiography
Geography 510. Advanced Meteorology
Geography 576. Geography of Marine Resources
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



# Philosophy

In the College of Arts and Letters

**OFFICE: Adams Humanities 4142**
**TELEPHONE: (619) 594-5263**

**Faculty**
Emeritus: Friedman, Gregor, 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 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 Philosophy 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 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. Students intending to go on to graduate work in philosophy are strongly urged to select "Current Issues" as their area of specialization.

*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, 537
Group II: Philosophy 512, 528, 541
Group III: Philosophy 506, 507, 508

*B. Legal and Political Philosophy:* Philosophy 510, 512, and three units selected from 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 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, 510, 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. Legal and Political Philosophy:* Fifteen units to include Philosophy 510, 512, and six units selected from Philosophy 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.

**120. Logic (3) I, II (CAN PHIL 6)**
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.





**510. Philosophy of Law (3)**
Prerequisites: Three units in philosophy and three units in political science.
The nature of law and the logic of legal reasoning. An exploration of certain key legal concepts such as causation, responsibility, personality and property.

**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.

### 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, Wilhelm, Williamson, Ziegenfuss

Chair: Carlson

Professors: Aufsesser, Buono, Carlson, Francis, P., King, McKenzie, Mechikoff, Moore, Rushall, Selder, Simmons, Sleet, Sucec

Associate Professors: Franz, Nichols-Bernhard, Patterson, Verity, Wells

Assistant Professors: Johnson, Quinn, Smith, Whitby

**Offered by the Department**

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.

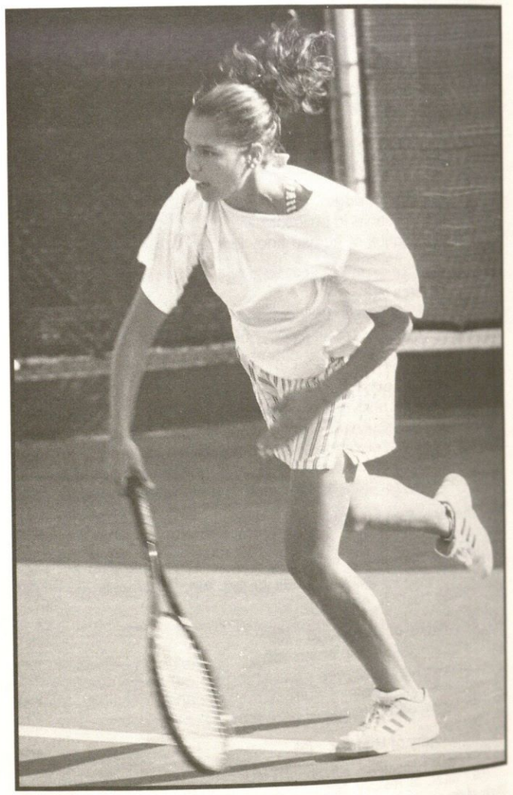
## The Major

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 Pre-Physical Therapy.** The purpose of this specialization is to prepare students to meet the academic requirements necessary for (1) a career in athletic training and completion of the degree requirements for national certification in athletic training, and (2) entry to postgraduate education for physical therapy, chiropractic, podiatry, and medicine. Students find employment in a broad range of medical, commercial, and educational environments. 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 this requirement at SDSU must make application for clinical internship to the Undergraduate Adviser in the Department. Selection is competitive and limited in number. Applications are accepted in spring for fall selections.



Students completing this specialization also find their preparation beneficial for postgraduate study leading to careers in physical therapy and medicine. 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 Pre-Physical Therapy

**Preparation for the Major.** Physical Education activities (2 units), 104A or 104B, 210, 265, 265L; Biology 150, 202; Chemistry 130, 200; Nutrition 204; Physics 180A, 180B; Psychology 101, 270; Sociology 101; Speech Communication 103. (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 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; Sociology 355. (52 units)

### 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, 270; Sociology 101; Speech Communication 103. (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 55 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; Sociology 355.

### 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, 270; Sociology 101; Speech Communication 103. (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 51 upper division units to include Physical Education 301, 302, 303, 304, 305, 306, 307, 314, 347A, 347B, 401A, 401B, Biology 336; Sociology 355 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, 443, 444, 445, 461.

## 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 is not required with this major.

### Elementary/Secondary

**Preparation for the Major.** Physical Education activity courses with consent of the department adviser (6 units), Physical Education 104A or 104B, 210, 265, 265L; Biology 150; Psychology 101, 270; Sociology 101; Speech Communication 103. (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 57 upper division units to include Physical Education 301, 302, 303, 304, 305, 306, 307, 314, 341, 347A, 347B, 348, 352, 401A, 401B, 412, 441A, 441B, 441C, 441D, 442A, 442B, 443, 444, 445; Biology 336; Sociology 355.

## 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.

1. Adapted Program: Minimum 16 units. Physical Education 348, 363, 398** (1 unit), 667, 672, and Special Education 501.
2. 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.

1. Adapted Program: Minimum of 16 units. Physical Education 348, 363, 398** (1 unit), 667, 672, and 684.
2. 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 24 units to include Physical Education 265, 265L, 301*, 307*, 352 (4 units), 398 (5 units), Biology 150, and Psychology 101.

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.

## 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:

1. Provide quality physical activity skill instruction at the beginning and intermediate levels in a wide variety of sport and dance activities.
2. Provide a vehicle for vigorous physical activity in an instructional setting.
3. Provide knowledge about various sport and dance activities.
4. Provide knowledge about the value of physical activity as it relates to an improved quality of life.
5. 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.)

**103. Jogging (1) I, II**
(Formerly numbered Physical Education 103A.)

**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**

**117. Archery (1) I, II**
(Formerly numbered Physical Education 117A.)

**118A-118B. Tennis (1-1) I, II, S**

**119A-119B. Bowling (1-1) I, II**

**120A-120B. Badminton (1-1) I, II**

**122A-122B. Fencing (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**

**150A-150B. Horseback Riding (1-1) I, II**
Physical Education 150A is prerequisite to 150B.

**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, Biology 150 and 336.
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, Psychology 270.
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 270.
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.)

**321. Intermediate Scuba Diving (2)**
One lecture and three hours of laboratory.
Prerequisites: Physical Education 320 or Openwater Scuba Diving Certification, medical examination, and acceptable openwater diving equipment.
Development of practical openwater diving skills and techniques, for divers who have successfully completed an openwater diving course. (Formerly numbered Physical Education 311.)

**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.)

**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.)

**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) I, II, S Cr/NC**
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, 303, 304, 305, 306, 314. Concurrent registration in Physical Education 401B.
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.
Circularespiratory 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 307, 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.)

**443. Educational Games (1)**
Two hours of activity.
Prerequisites: Physical Education 442A and 442B.
Analysis, development, and implementation of physically active games designed to reach selected educational objectives.

**444. Educational Gymnastics and Dance (1)**
Two hours of activity.
Prerequisites: Physical Education 442A and 442B.
Educational gymnastics and dance for elementary school children.

**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.)

**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)**

**562. Cardiopulmonary Laboratory (2) I, II**
One lecture and three hours of laboratory.
Prerequisites: Physical Education 304 and 314.
Cardiopulmonary evaluation of human subjects for rehabilitative and preventive cardiology including electrocardiography, blood chemistry, ergometry, central and peripheral vascular assessment, body composition, and lifestyle change.

**585. Quantitative and Computer Methods in Physical Education (2)**
Prerequisite: Psychology 270 or another introductory statistics course.
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: Roeder
Professors: Burnett, Cottrell, Davis, Day, Goldberg, Lilly, Morris, Oseroff, Papin, Piserchio, Rehfuss, Roeder, Shore, Sweedler, Templin, Torikachvili
Lecturers: Ferguson, Shackelford
Adjunct: Kaufmann, 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, Schroedinger, 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; Computer Science 106 or 107; 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, 313, 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 45 upper division units to include Physics 311, 313, 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, 516A, 520.
*Recommended:* Physics 516B.

#### (c) Modern Optics

*Required:* Physics 406, 552, 553.
*Recommended:* Physics 516A, 532, 554.

#### (d) Condensed Matter

*Required:* Physics 510, 532, 533.
*Recommended:* Physics 534.

## 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***
***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 180A-180B, 190, 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.

**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.

**190. Preparation for Physics (3)**
Prerequisite: Two years of high school algebra.
Elemental principles of physics approached from problem-solving and critical thinking perspective necessary for success in Physics 195, 196, and 197. Not open to students with credit in Physics 107.

**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.

**195P. Principles of Physics Problem Solving (1) Cr/NC I, II**
Prerequisite: Credit or concurrent registration in Physics 195.
Student participation in techniques of problem solving in the areas of mechanics and wave motion.

**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.

**196P. Principles of Physics Problem Solving (1) Cr/NC I, II**
Prerequisite: Credit or concurrent registration in Physics 196.
Student participation in techniques of problem solving in the areas of electricity and magnetism.

**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.

**197P. Principles of Physics Problem Solving (1) Cr/NC I, II**
Prerequisite: Credit or concurrent registration in Physics 197.
Student participation in techniques of problem solving in the areas of waves, optics, relativity and modern physics.

**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.

**204. Light, Vision, and Color (3) II**
Phenomena involving light, color, and vision. Topics include mirrors, lenses, mirages, rainbows, process of vision, color specification and mixing and perception.

**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 Conservation (3)**
Prerequisite: Completion of the General Education requirements in Communication and Analytical Reasoning and Foundations II.A., Natural Sciences.
Course devoted to the fundamental physical concepts underlying energy, its conversion, utilization and conservation. Not open to physics majors.

**305. Quantum Reality - From Quarks to Quasars (3)**
Prerequisite: Completion of the General Education requirements in Communication and Analytical Reasoning and Foundations II.A., Natural Sciences.
Universe viewed from small (elementary particles) to very large (cosmology) with emphasis on structural aspects of physical theories of university and how they came to be formed.

**311. Electronics for Scientists (3) I, II**
Two 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. Designed to introduce science majors to modern electronic devices and their utilization in scientific instrumentation.

**313. Advanced Electronics (3) I, II**
Two lectures and three hours of laboratory.
Prerequisite: Physics 311 with minimum grade of C.
Conventional and operational amplifiers, oscillators, analog to digital conversion, pulse and digital electronics. Emphasis is on applications to modern scientific instrumentation.

**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. (Formerly numbered Physics 350A.)

**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) I, II Cr/NC**
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; credit or concurrent registration in Mathematics 342C.
The mathematical and physical foundations of the quantum theory in terms of Schroedinger's wave mechanics. Applications to the properties of atoms, quantum chemistry, and nuclei.

**513. Electronic Instrumentation (3)**
One lecture and six hours of laboratory.
Prerequisite: Physics 313 with minimum grade of C.
Transducer principles and applications; theory and design of active filters, modern signal detection and enhancement techniques, instrumentation design.





**516A-516B. Theory of Scientific Instrumentation (3-3)**
Prerequisites: Physics 313; Mathematics 342A. Physics 516A is prerequisite to 516B.
Linear system analysis using Fourier techniques. Introduction to the stochastic treatment of signals and noise, using concepts from probability and statistics. Optimization of detection systems with respect to signal-to-noise ratio. Applications to spectroscopy.

**520. Microprocessor Instrumentation (3)**
Two lectures and three hours of laboratory.
Prerequisite: Physics 313.
The electronics of microprocessor-based computer and control systems. Assembly language programming. Interfacing of analog inputs and outputs. The microcomputer as a multipurpose signal processing instrument.

**532. Solid State Physics (3)**
Prerequisites: Physics 350, 354B; credit or concurrent registration in Mathematics 342C.
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 342C.
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 (2)**
Six 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 credit or concurrent registration in Mathematics 342C.
Relative coordinates, Lorentz transformation, covariant formation 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

**Offered by the Department**

Master of Arts degree in education.
Multiple subject bilingual cross-cultural language and academic development (BCLAD) credential.
Bilingual/cross-cultural specialist credential.
Single subject with bilingual emphasis credential.
Language development specialist certificate.

## The Major

Policy studies offers programs leading toward the Bilingual Cross-Cultural Language and Academic Development (BCLAD) credential (for elementary teachers) and Single Subject with Bilingual Emphasis (for secondary teachers), as well as the more advanced Bilingual/Cross-Cultural Specialist credential (for K-12).

For students who wish to teach English as a Second Language (ESL) in K-12, SDSU offers the Language Development Specialist certificate, a 24-unit program. This is a California State Department of Education approved program. It is appropriate for anyone who wishes to teach English, literacy, or language development in a classroom to ethnolinguistic populations. This program is offered jointly by the Policy Studies and Linguistics departments. Students take courses in curriculum development, teaching methods, and linguistics—all applied to classroom teaching. Field experience is also included in the program. After completing the certification program, the prospective LDS teacher must pass an examination offered by the Commission on Teacher Credentialing. SDSU provides the only such certificate program in San Diego County.

The Bilingual/Cross-Cultural Specialist credential program builds practicum into every course. The program offers instruction in how language is acquired and how learning is influenced by sociocultural background; language assessment; and methods of teaching where delivery is in the primary language of the pupils, including the content areas of mathematics, science, social studies, language arts, reading, and writing. Candidates must pass the Spanish Language Proficiency and Cultural Awareness Examination given by the department and a comprehensive examination.

## Bilingual Cross-Cultural Language and Academic Development Credential (BCLAD)

**(Credential Code: 00200)**

The Bilingual Cross-Cultural Language and Academic Development credential (BCLAD) 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 "Bilingual Cross-Cultural Language and Academic Development (BCLAD)" in the application for admission to SDSU.

### Standards for Admission

1. **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).

2. **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 the Test Office (SS-2549) or through advisers in the Policy Studies in Language and Cross-Cultural Education Department, ED-152.

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.

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 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.

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.** A minimum of 60 hours in a typical elementary classroom with University supervision within the five years preceding admission.

8. **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.

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. 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.

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. Make appointment in ED-152, telephone 594-5155.

11. **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.

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.

### 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

1. A bachelor's degree (or higher) with any major other than education.
2. Completion of an approved program of professional education. (See Department of Policy Studies in Language and Cross-Cultural Education for further information.)
3. Passage of PRAXIS Examination, Multiple Subject Assessment for Teachers (MSAT) or approved waiver program (Liberal Studies major, Emphasis in Education).
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, B.2. United States Constitution.
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 the section of this catalog on "General Regulations."*

### Clear Credential Requirements

1. Completion of an approved fifth year program (a minimum of 30 upper division or graduate-level postbaccalaureate units).
2. Coursework/fieldwork to satisfy PL 94-142: Needs of, and methods of providing educational opportunities to individuals with exceptional needs (mainstreaming). (Teacher Education 526.)
3. Coursework/training in computer literacy (Educational Technology 470).
4. Knowledge of health education in California, including substance abuse and nutrition: CHE 101, 320 (preferred), or 321, and verification of CPR competency.

## Single Subject with Bilingual Emphasis Credential (Credential Code: 00100)

This program is in the process of being revised to the BCLAD. See department for additional prerequisites and changes to program.

The Single Subject with Bilingual Emphasis credential 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 Emphasis*" in the application for admission to SDSU.

### Standards for Admission

1. **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).

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. 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 |
| 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. 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.

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 |
| PLC 400 The Secondary School and Bilingual Education | 3 |
| PLC 515 Bilingual Teaching Strategies | 3 |
| **First Semester** | |
| PLC 914 (or TE 914 with consent of adviser) Teaching and Learning in the Content Area: Major | 3 |
| PLC 924 Behavioral and Psychological Aspects of Teaching in the Bilingual Classroom | 4 |
| PLC 954 Humanistic and Social Aspects of Teaching in the Bilingual Classroom | 4 |
| PLC 963 Student Teaching for Bilingual Secondary Students I | 3-4 |
| **Second Semester** | |
| PLC 903 Bilingual Student Teaching Seminar | 3 |
| PLC 933 Skills in Teaching Reading to Bilingual Secondary Students* | 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
   **Industrial and Technology Education:** Industrial Technology
   ***Science:** Biology
   **Mathematics:** Mathematics
   **Music:** Music
   **Physical Education:** Physical Education
   ***Physical Sciences:** Physical Science
   ***Social Science:** Social Science





* These programs are in the process of being revised. See department.

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, B.2. United States Constitution.
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 postbaccalaureate 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 or 321 (preferred), 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.

## Language Development Specialist Certificate

The Language Development Specialist Certificate provides an interdisciplinary approach in linguistics and policy studies to train teachers in theory and application of English as a Second Language methodology for linguistically diverse students in grades K-12. Applicants need to contact the department to complete application requirements prior to beginning the certificate program.

Requirements to exit the program:

1. Valid California teaching credential.
2. Six units of an appropriate foreign language at the college level.

The certificate program includes Linguistics 520, 550, 551, 552, and Policy Studies in Language and Cross-Cultural Education 553, 602, 650*, 651.

A grade point average of 3.0 must be obtained in the eight courses. Students who complete the certificate program are not eligible to receive the Basic Certificate in Applied Linguistics and English as a Second Language (ESL). This is a California Commission on Teacher Credentialing approved program for preparation to take the California state examination.

* Prerequisites waived for students in this program.

## 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)**

Prerequisite: Consent of instructor.

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, Padgett
Chair: Terrell
Professors: Anderson, Andrain, Conniff, Heck, Hofstetter, Johns, Kahng, Little, Loveman, Miles, Schultze, Strand, Terrell
Associate Professors: Fairlie, Hobbs, Keiser, Lewin, Soule
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.

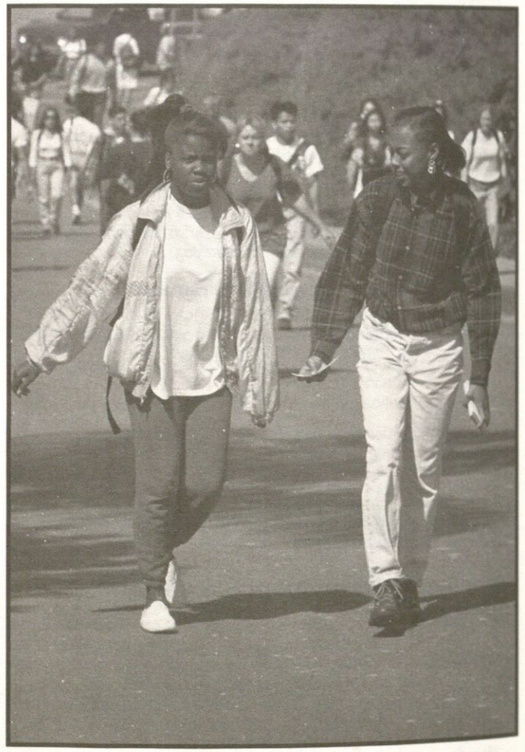
## Political Science Major

**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 345 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, 476 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; 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

**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)

**345. Constitutional Government (3)**

Constitutionalism as a concept of legal and political philosophy; foundations of American constitutionalism; origin and framing of the American Constitution; development of constitutional principles through judicial interpretation.

**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 nonmajors.

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 nonmajors.

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 nonmajors.

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.

**476. International Organization (3)**

Evolution, functions, achievements, and limitations of international organization in modern society. Primary focus on the United Nations. (Formerly numbered Political Science 376.)

**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 401 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 literature. 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 Oral and Written Composition (3)**
Prerequisites: Portuguese 301; 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 literature. (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, Carlson, Harari, Harrison, Hillix, Hunrichs, Kaplan, Karen, Koppman, Leckart, Lee, Lynn, McDonald, O'Day, Penn, Psomas, Sattler, Segal, Smith, Stevens, Turner
Chair: Hornbeck
Professors: Borges, Bryson, J., Bryson, R., Dicken, Dunn, Fenson, Franzini, Gallo, Graf, Graham, Grossberg, Hornbeck, Ingram, Kass, Langlais, Levine, Litrownik, Marshall, Martin, McGivern, Mollenauer, Murphy, Plotnik, Radlow, Reed, Riley, Rodin, Rosenbaum, Saccuzzo, Salis, Schulte, Sheposh, Spinetta, Yaremko
Associate Professors: Cronan, Defran, Matt, McCordick, Price (Joseph), Price (Judy), Reilly, 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

Psychology is the scientific study of the behavior of humans and animals. Psychologists use scientific methods in an attempt to understand and predict behavior, to develop procedures for changing behavior, and to evaluate treatment strategies. Research might be conducted in the laboratory where the factors studied can be controlled; or it may take place in a real life setting where more natural behavior is studied.

There are many areas of psychology, each attempting to explain behavior from a slightly different perspective. Social psychology is concerned with the effects of social situations on human behavior. Personality theorists study individual behavior. Developmental psychologists study principles and processes responsible for change throughout life. Comparative psychologists study animal behaviors across the range of species, while physiological psychologists are concerned with the biological bases of behavior. Learning is an area of psychology exploring how new behaviors are learned and maintained. Cognitive psychologists investigate memory, thought, problem solving, and the psychological aspects of learning.

Clinical psychologists study ways to help individuals and groups of individuals change their behavior. Industrial/organizational psychologists are concerned with the physical and social aspects of people's work environments as they affect work output. Community psychologists use scientific methods to study and solve social problems.

Numerous and varied career opportunities are open to students who hold the bachelor's or master's degree in psychology. These include careers in business, such as management, public relations, personnel, and staff training; in agencies responsible for mental health service delivery in clinics, hospitals, and special schools; in teaching for child care facilities, preschools, and in conjunction with a teaching credential in elementary and secondary schools; in research, to conduct surveys, program evaluations, and basic study.

A bachelor's degree in psychology serves as preparation for graduate programs in psychology, social work, education, counseling, law, medicine, and business. A Ph.D. in psychology is required for teaching at the university level and for licensing as a psychologist (independent practice of psychotherapy).

## 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 with this major.

Two plans are provided for the major in psychology: **Plan A** for those students who wish to either terminate their education with a B.A. degree or to pursue graduate study in a field other than psychology; and **Plan B** for those students expecting to pursue the study of psychology beyond the B.A. degree.

### Plan A

Plan A is for a nonprofessional major in psychology and is designed to provide students with a greater understanding of human behavior as the emphasis in their liberal arts education. The recommended pattern of courses for this program is not designed to facilitate graduate and professional study in psychology.

**Preparation for the Major.** Psychology 101, 211, 260, and 270. (12 units)

Recommended courses in related fields: Six units in General Education courses in biology; three units in a General Education course in philosophy; and six units in General Education courses in anthropology and/or sociology.

**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 psychology to include twelve units selected from Psychology 330, 340, 350, 351, 375, 380, 388. It is expected that students under Plan A will select a pattern of courses in line with their particular objectives in pursuing Plan A.

### Plan B

The purpose of Plan B is to facilitate the specific preparation of those students who wish to pursue graduate and professional preparation in psychology, e.g., clinical, industrial and personnel, physiological, social, or theoretical-experimental psychology.

**Preparation for the Major.** Psychology 101, 211, 260, and 270. (12 units)

Preparatory courses are recommended in sciences, computer-related courses, and mathematics.

**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 26 upper division units in psychology to include Psychology 410, 470; four units selected from 412, 413, 415, 416, 417, 418, 419; nine units selected from 330, 340, 350, 351, 375, 380, 388; and six units selected from courses in consultation with the departmental adviser.

## Psychology Minor

The minor in psychology consists of 18-23 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, 470, 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)

*Physiological:* Psychology 101, 211, 260, and 270 or equivalent; 11 units of upper division psychology to include Psychology 410, 413 and 460. (23 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)**
Prerequisites: Psychology 101, and 270 or statistics in another field.
Psychological principles applied to industrial problems of selection, placement and training.

**321. Organizational Psychology (3)**
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.
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**
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.

**335. Psychology of Adult Development and Aging (3)**
Prerequisite: Psychology 101.
The psychological, physiological, and sociological factors influencing behavior in the later years of life.

**340. Social Psychology (3) I, II**
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 in the contemporary world, from the point of view of psychological theory, method and knowledge.

**350. Abnormal Psychology (3) I, II**
Prerequisite: Psychology 101.
Causes and treatment of abnormal behavior with emphasis on major behavior disorders.





**351. Psychology of Personality (3), I, II**
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.

**375. Intermediate Statistics: Computer Methods (4) I, II**
Two lectures and six hours of laboratory.
Prerequisite: Psychology 270.
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.
Modern empiricism and the philosophy of science as related to issues in contemporary psychology.

**407. Health Psychology (3)**
Prerequisites: Psychology 211 and 270.
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.
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.
Experimental literature, assigned and original laboratory projects in the field of social psychology.

**413. Experimental Psychology: Physiological (4)**
Two lectures and six hours of laboratory.
Prerequisites: Psychology 260 or 460; and Psychology 410.
Experimental literature, assigned and original laboratory projects in the field of physiological psychology. Histological and pharmacological techniques.

**415. Experimental Psychology: Personality and Clinical (4)**
Two lectures and six hours of laboratory.
Prerequisite: Psychology 410. Recommended: Psychology 350 or 351.
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.
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.
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.
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.
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.

**442A. Psychology and the Environment I (3) I**
Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences, and II.B., Social and Behavioral Sciences. Nine units selected from Psychology 211, 270, 316, 340, 417, 587, and upper division standing.
Relationship of human behavior to environmental preservation; use of behavior modification principles in the design of strategies to sustain and enhance earth's natural resources.

**442B. Psychology and the Environment II (3) II**
Prerequisite: Psychology 442A.
Relationship of human behavior to environmental preservation; use of behavior modification principles in the design of strategies to sustain and enhance earth's natural resources.

**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.

**470. Psychological Testing and Measurement (3)**
Prerequisite: Psychology 270, or a semester of statistical methods in any other department.
Measurement theory and the basic principles of testing. The selection, construction and critical evaluation of group tests of intelligence, personality, aptitude, interest and achievement.

**472. Fundamental Topics for Advanced Statistics in Psychology (3)**
Two lectures and two hours of activity.
Prerequisites: Psychology 270 and consent of instructor.
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 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, Gusta, Henderson, Pugh, Rea, Sparrow, Sutton
Associate Professors: Calavita, Lee, Stock
Assistant Professors: Concepción, 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)**

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 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.

**IMPACTED PROGRAM.** The public administration major is designated as an impacted program and specific regulations related to admissions are imposed. Consult the school for regulations and admissions criteria.

### 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.

**475. 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.

**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) I, II Cr/NC**
Prerequisites: Public Administration 301, 341 and all lower division required courses; credit or concurrent registration in Public Administration 330 or 340 and 450; 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.

**530. Decision Making in the Urban Community (3)**
Prerequisite: Public Administration 310.
Processes of decision making in the management of urban communities.

**535. 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.

**550. 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.

**551. 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
Chair: Lamke
Professors: Dixon, Duncan, Gattas, Lamke, Rankin
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 51 upper division units to include Recreation 304, 305, 351, 361, 371, 452, 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, 361, 371, 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) I, II, S Cr/NC**
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. Minimum of one hour per week in class plus 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 196, 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.



**361. Scientific Foundations of Recreation Therapy (3) I, II**
Prerequisite: Recreation 351 required for recreation majors; open to others with consent of instructor.
Theoretical principles of therapy and prevention. Survey of medical and psychiatric pathology and terminology.

**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.

**404. Cross-Cultural Perspectives of Leisure (3) II**
Prerequisite: Recreation 304
Cultural approach to philosophy and potential of leisure in a world of shifting social patterns. Emphasis on how culture influences leisure values.

**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.

**452. Clinical Methodology of Recreation Therapy (3) II**
Two lectures and three hours of laboratory.
Prerequisites: Recreation 351, 361, 371.
Integration and application of clinical principles and therapeutic procedures. Emphasis on methodological and theoretical constructs of recreation therapy.

**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) I, II, S Cr/NC**
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) I, II, S Cr/NC**
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)**
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.**



# Religious Studies

## In the College of Arts and Letters

**OFFICE: Adams Humanities 4231**
**TELEPHONE: (619) 594-5185**

**Faculty**
Emeritus: Anderson, Downing, Friedman, Gefter, Jordan, Khalil
Chair: Sparks
Professor: Sparks
Associate Professors: Hermansen, Holler, Johnson
Lecturer: Boni

**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.

**Major.** A minimum of 27 upper division units in religious studies to include Religious Studies 300, 498, 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, 372, 375, 380, 385, 480, 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, 372, 375, 380, 385, 480, 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.

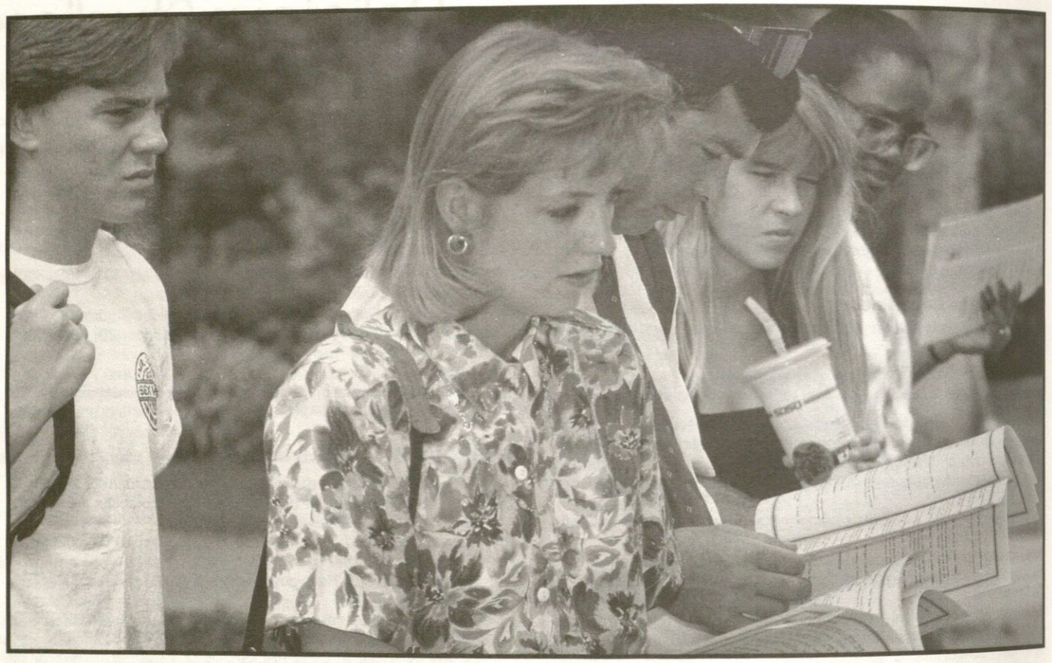
**102. Introduction to Religion (3) I, II**
Nature, meaning, and presuppositions of religious experience.

**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. (Formerly numbered Religious Studies 201.)

**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 (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.

**372. Goddesses (3)**
Prerequisite: Three units of religious studies.
History and significance of goddess traditions in archaic primal religions, in ancient near east, and in major world religions.

**375. Primal Religion (3)**
Prerequisite: Three units of religious studies.
Primal religion studied with focus on religious forms of myth, ritual, and experience in past and present, interpretation of the transition from primal to modern religion and the persistence of primal characteristics in historical religions.

**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.

**480. Ways of Spiritual Transformation (3)**
Prerequisite: Three units of religious studies.
Doctrines and practices of self-transformation based on readings selected from various world religions.

**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.

**498. Senior Project (3)**
Prerequisites: Religious Studies 396W, twelve upper division units in religious studies, and consent of instructor.
Seminar workshop and project in the comparative study of religious practices, doctrines, themes (such as religious ethics, mysticism), phenomenological studies in religions, etc.

**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)**

**506. Spiritual Traditions of India (3)**
Prerequisite: Three units of religious studies.
India's religious and philosophical modes of thought; reading and analysis of primary texts in translation.

**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 232**
**TELEPHONE: (619) 594-6515**

**Faculty**

Emeritus: MacDonald, Denman
Chair: Sweedler-Brown
Professor: Johns
Associate Professors: Little, Poole, Rose, Sweedler-Brown
Assistant Professor: Ornatowski

**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 Analytical Reasoning 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) I, II, S Cr/NC/SP**

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) I, II, S Cr/NC**

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 (3) I, II Cr/NC**

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) I, II Cr/NC/SP**

Intermediate written English with emphasis on problems of nonnative 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) I, II Cr/NC/SP**

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) I Cr/NC/SP**

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) II Cr/NC/SP**

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 96 and 98.)

**A.** Learning Skills
**B.** Grammar
**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.

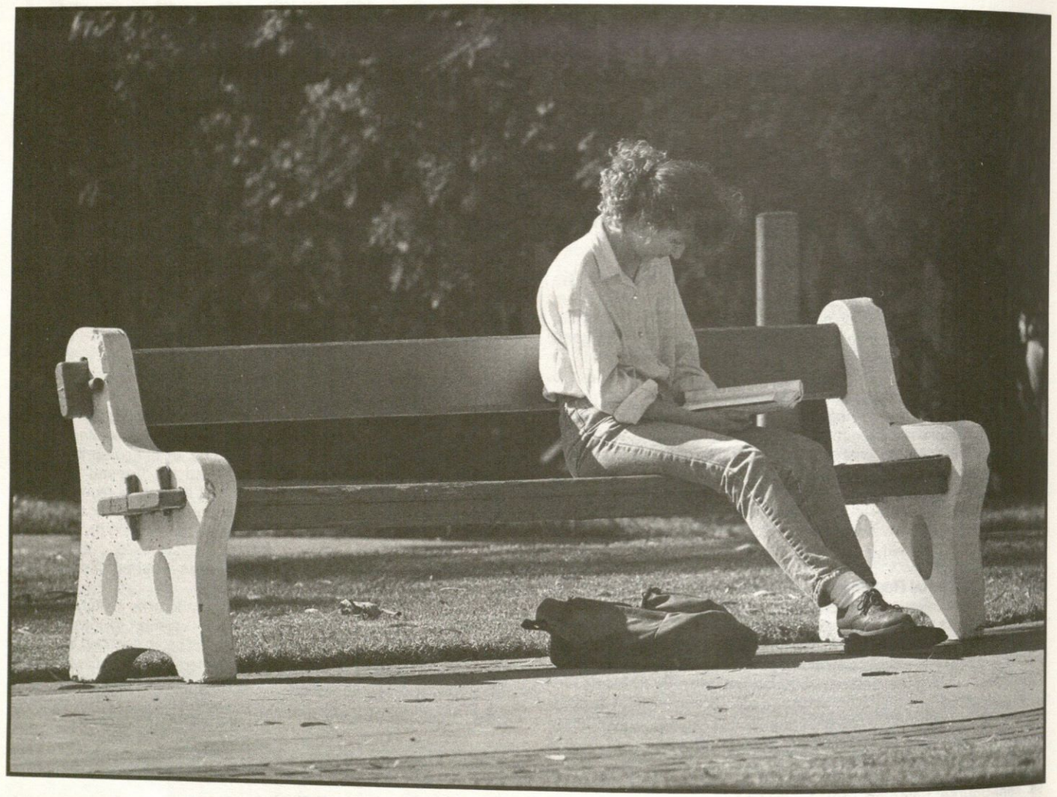
The theory and practice of expository writing, including the contributions of semantics, rhetoric, and logic. (Formerly numbered English 500W.)

**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) I, II, S Cr/NC**

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 92A is equivalent to Rhetoric and Writing 97A.

Rhetoric and Writing 92B is equivalent to Rhetoric and Writing 97B.

Enrollment in Rhetoric and Writing 97A and 97B is restricted to students participating in the Intensive Learning Experience program.



# Russian

In the College of Arts and Letters

**OFFICE: Business Administration 431**
**TELEPHONE: (619) 594-6313**

**Faculty**

Emeritus: Dukas, Fetzer, Kozlik
Acting Chair: Benkov
Assistant 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. For students interested in pursuing further studies in the Russian language, a Master of Arts degree is offered. 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 the Soviet Union 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 the Soviet Union.

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.

**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, 450, 460.

Mexican American Studies 301, 303, 320, 350A-350B, 480.

Psychology 320, 321, 322, 330, 340, 347, 350, 351, 452, 453, 454, 455.

Religious Studies 301, 305, 314, 316, 318, 340, 353, 363, 365, 401, 403.

Women's Studies 310, 320, 325, 330, 340, 341A-341B, 360, 370, 375, 390, 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 or 474; 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, 570, 571, 572, 574, 575, 576, 577; History 441, 540; Political Science 334, 335; Sociology 350, 459, 557. Recommended: Biology 315, 324, 359, 454, 464A, 464B; Geological Sciences 301, 303; Community Health Education 350; Physics 301; Psychology 442A; 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, 345, 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 General Studies 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) I, II Cr/NC**

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) I, II Cr/NC**

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, multiway 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) I, II Cr/NC**

Eleven hours of supervised laboratory instruction and nineteen hours of supervised technical activity.

Prerequisite: Credit or concurrent registration in Economics 441.

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) I, II Cr/NC**

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.

**GRADUATE COURSES**
**Refer to the Graduate Bulletin.**



# Social Work

## In the College of Health and Human Services

**OFFICE: Hepner 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, Reichert, Riehman, Sardinas, Schmidt

Director: Harbert

Associate Director: Siman

Professors: Davis, Dean, Griffin, Harbert, Kelley, Roberts-DeGennaro, Stanford, Stoesz, Valle, Zuniga

Associate Professors: Ellis, Harris, Jones, Pritchard, Siman

Assistant Professors: Ajemian, Finnegan, Lu, Raymer, 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 REGLINE 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 may 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 nonmajors.
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 nonmajors.
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) I, II Cr/NC**
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, Somerville, Sorensen, Stephenson, Wendling
Chair: Wood
Professors: Cottrell, Emerick, Hohm, Hough, Ima, Kolody, Preston, Rumbaut, Sandlin, 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) Industrial Sociology 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 Industrial Sociology 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, or 517.
***Theory:*** Sociology 400, 401, or 403.

Twelve units from ***one*** of the following areas:
***Family, Sexuality, and the Life Cycle:*** Sociology 320, 420, 421, 522, 527, 528.
***Social Change:*** Sociology 350, 351, 355, 450, 455, 456, 457, 459, 555, 556, 557.
***Social Control:*** Sociology 441, 443, 444, 445, 543.
***Social Organization:*** Sociology 335, 338, 430, 431, 433, 436, 531, 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, or 517.
***Theory:*** Sociology 400, 401, or 403.

Six units of electives excluding Sociology 499 or Sociology 597.

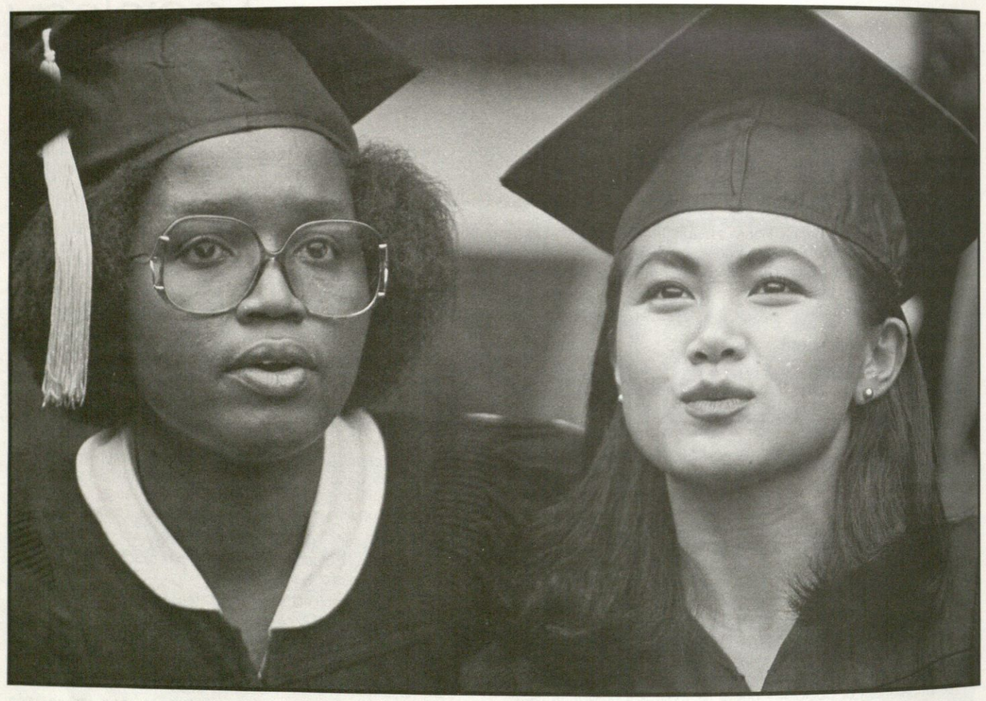
### (c) Industrial Sociology

A minimum of 27 upper division units in sociology to include Sociology 320, 355, 430, 431, 480, 531 (18 units), plus:

Three units from each of the following areas:
***Social Psychology:*** Sociology 310, 410, 412, or 517.
***Theory:*** Sociology 400, 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 18 units selected from Sociology 320, 350, 352, 355, 420, 421, 433, 436, 441, 443, 444, 445, 457, 480, 539, 543, 556, 557; Sociology 396W or equivalent, and three units from **each** of the following areas:

*Methods:* Sociology 406, 407, or 408.

*Social Psychology:* Sociology 310, 410, 412, or 517.

*Theory:* Sociology 400, 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, 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, 528.

*Industrial Sociology:* Sociology 320, 355, 430, 431, 531.

*Social Change:* Sociology 350, 351, 355, 450, 455, 456, 457, 459, 555, 556, 557.

*Social Control:* Sociology 441, 443, 444, 445, 543.

*Social Organization:* Sociology 335, 338, 430, 431, 433, 436, 531, 537, 539.

*Theory and Methods:* Sociology 301, 305, 400, 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; 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.

**400. History of Social Thought (3)**

Prerequisite: Sociology 101.

World-historical survey of social thought prior to the late nineteenth century classical theorists, from the traditions of tribal societies and early civilizations to pre-Socratic and classical Greek philosophers, and from the Italian Renaissance to the Age of Enlightenment.

**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, Summer, 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.

**431. 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. Theories and ideologies of management and worker motivation in corporations and government agencies.

**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 Crazes (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.

**459. Sociology of the Future (3)**
Prerequisite: Sociology 101.
Alternative futures in selected areas of social life, such as family, technology, work, and leisure, from local to global levels of analysis. Review and assessment of research into the future.

**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.
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 issues surrounding dying in our society.

**531. Working and Society (3)**
Prerequisite: Sociology 101.
Work and occupations in the division of labor. Paid and unpaid labor; work at home and in the marketplace. The social drama of work: identity, role conflict, and change. Power, pay, and status ranking of occupations; the professionalization of work.

**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: Jiménez-Vera, Lemus, Santaló, Sender, Talamantes, Weeter

Chair: Wilson

Professors: Barrera, Case, Castro (Castillo), Christensen, Head, Higgs, Segade, Silverman, Wilson

Associate Professors: Hidalgo, O'Brien, Robinson, 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 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.)

# 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

**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 programs 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 availability. 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)**

**NOTE:** All 500-level courses in special education, with the exception of Special Education 500 and 501, are reserved for students officially admitted to one of the programs in special education.

**500. Human Exceptionality (3) I, II, S**
Historical, philosophical, and legal backgrounds which affect special education practices. Identifying and programming for students with exceptionalities: principles, procedures, and techniques. Fieldwork.

**501. Special Education Procedures (3) I, II, S**
Procedures, legal requirements, and interpersonal processes in the identification, prescription, teaching and evaluation of instructional programs for students with handicaps.

**508. Characteristics and Identification of Students Who Are Gifted and Talented (3) I**
Prerequisite: Special Education 500.
Historical and philosophical foundations of education for the gifted, including review of research on characteristics screening and identification procedures.

**524. Characteristics and Education of Students with Learning Handicaps (3) I**
Prerequisites: Credit or concurrent registration in Special Education 500 and 501.
Historical and philosophical perspectives of programs related to students with learning handicaps, including review of research on educational programs, curricular approaches, and characteristics.

**525. Characteristics and Education of Students with Severe Handicaps (3) I**
Prerequisites: Credit or concurrent registration in Special Education 500 and 501.
Historical and philosophical perspectives of programs related to students with severe handicaps, including review of research on educational programs, curricular approaches and characteristics.

**526. Characteristics and Education of Students with Physical Handicaps (3) I**
Prerequisites: Credit or concurrent registration in Special Education 500 and 501.
Historical and philosophical perspectives of programs related to students with physical handicaps, 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 handicaps, 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 educational service delivery, review of research, and analysis of best practices 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, analyzed with reference to their applications for the educational environment. 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, sensory, communicative, learning, and social disabilities and for environmental 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 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.**



# Speech Communication

In the College of Professional Studies and Fine Arts

**OFFICE: Speech and Telecommunications 201**
**TELEPHONE: (619) 594-6051**

**Faculty**

Emeritus: Adams, Benjamin, Sanders
Chair: Weitzel
Professors: Andersen, J., Andersen, P., Beach, Hellweg, Lustig, Samovar, Spitzberg, Weitzel
Associate Professors: Dionisopoulos, Geist

**Offered by the Department**

Master of Arts degree in speech communication.
Major in speech communication with the B.A. degree in applied arts and sciences.
Teaching major in speech communication for the single subject teaching credential in English/speech.
Minor in speech communication.

## The Major

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 high school teaching credential which entitles them to teach speech, English, and literature.

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 department 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.

Availability of speech communication classes may be limited by existing enrollment demands.

Applications will be accepted only during the months of August for the following spring semester and November for the fall semester. Change of major or declaration of major will be accepted only during specific filing periods. Please contact the department for deadlines.

## 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.

## 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)**

**This curriculum will be replaced with a new program effective January 1, 1995.**

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.

**Preparation for the Major.** Speech Communication 105, 135, 160, 204, 291; English 100, 200; nine units selected from English 250A*, 250B*, 260A*, 260B*; Linguistics 101+. (24-33 units)

**Upper Division Writing Requirement.** English 500W with a grade of C (2.0) or better.

**Major.** A minimum of 39-45 upper division units to include Speech Communication 307, 335, 360, 391, 491, 530; three units of 309; six units selected from Speech Communication 301, 302, 361; English 527*, 528*; and three units selected from Linguistics 520+, 524++, or 550.

* Only nine units from English 250A, 250B, 260A, 260B, 527, or 528 are required.
\+ Only three units from Linguistics 101, 520, 524, or 550 are required.





## 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, 308, 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.

## Courses

**LOWER DIVISION COURSES**

**90. Improving Speaking Confidence (1) I, II Cr/NC**
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) I, II Cr/NC**
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.

**UPPER DIVISION COURSES**
**(Intended for Undergraduates)**

**301. Management of Speech Activities (1) I, II Cr/NC**
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) I, II Cr/NC**
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.

**308. Oral Interpretation (3)**
Prerequisite: Speech Communication 103.
Analysis of literary compositions as guides to oral interpretation. Practice through presentation of readings, group speaking, and readers' theatre.

**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) I, II Cr/NC**
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.

**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.

**GRADUATE COURSES**
**Refer to the Graduate Bulletin.**



# Teacher Education

In the College of Education

**CENTER FOR CAREERS IN EDUCATION: Education 100**
**TELEPHONE: (619) 594-5964**

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, Crum, Elliott, Erickson, Fisher, 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, Schrupp, Stautland, Steckbauer, Stough, Strand, Tossas, Wilding, Yarborough, Yesselman

Director: Mehaffy

Professors: Becklund, Bee, Berg, Cornejo, Curry, Duckworth, Fearn, Flood, Ingmanson, Lapp, McCabe, McCormack, Mehaffy, Moreno, Nagel, Pehrson, Shaw, Smith, R., Strom, Treadway

Associate Professors: Armstrong, Bezuk, Evans, Farnan, Ford, Lujan, Mason, Mathison, Pang, Park, Ross, P., Santa Cruz, Tran

Assistant Professors: Nieto, Philipp

### 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.
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 includes 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 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: HS 101, 320 (preferred), or 321 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 or SPED 501.
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 1995 academic terms are available from Aztec Shops Copy Center during the following open enrollment dates:

For Spring 1995 – August 22 through November 11, 1994
For Fall 1995 – January 24 through April 7, 1995

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; number theory; 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 successful completion of TE 453 since August 1989.
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 with a Cross-Cultural Language and Academic Development Emphasis (CLAD)

**(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
   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.

## 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
Industrial and Technology Education: Industrial Technology
*Science: Biology
Mathematics: Mathematics
Music: Music
Physical Education: Physical Education
*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. 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, B.2. United States Constitution.)
6. Knowledge of health education in California, including substance abuse and nutrition, HS 320 or 321 (preferred) 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 or SPED 501.
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 1995 academic terms are available from Aztec Shops Copy Center during the following open enrollment dates:

For Spring 1995 – August 22 through November 11, 1994
For Fall 1995 – January 24 through April 7, 1995

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. 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 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 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 August1989.

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.*

### 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.

**396W. Advanced Writing Skills in Education (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.
Writing to improve communication in educational and related subjects, including reports, proposals, and articles.

**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. Techniques for Substitutes (3) I, II**
One lecture and four hours of activity.
Prerequisite: Admission to a credential program or a teaching credential.
Preparation for persons entering the field of substituting. Skills in adapting to the temporary status of substitute teaching, compilation of substitute teaching materials, and workshops to create materials.

**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.

**456. Law and Teaching (1)**
Prerequisite: Admission to teacher education or a valid teaching credential.
Impact of statutory and case law on teaching.

**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.

**512. Arts and Crafts for Teachers: A Multicultural Approach (3)**
One lecture and four hours of activity.
Prerequisite: Twelve units in education.
Art histories and craft traditions from world cultures. Creation of instructional materials from different cultural sources.

**522. Substance Abuse in the Schools (3)**
Prerequisite: Community Health Education 574.
Development of school policy and school plan to include substance abuse prevention, identification, intervention, referral, and aftercare. Collaboration with parents, schools, agencies, and local communities.

**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) I, II SP***
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

In the College of Professional Studies and Fine Arts

**OFFICE: Professional Studies and Fine Arts 222**
**TELEPHONE: (619) 594-6575**

### Faculty

Emeritus: Heighton, Jones, Lee, Madsen, Witherspoon, Wylie
Acting Chair: Johnson
The Van Deerlin Chair in Communication: Eger
Filmmaker in Residence: Ofield
Professors: Anderson, Jameson, Johnson, Real
Associate Professors: Blue, Durbin, Martin, Meador

### Offered by the Department

Master of Arts degree in telecommunications.

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.

Major in drama, with emphasis in design for television. *See* Drama.

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 Major

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 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 public relations and advertising; 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; and in new technologies, including computer conferencing, data networks, teletext, and satellites.

## 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.

**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.

**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.

*Electronics:* Industrial Technology 361, 462, 464, 563.

*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.

## 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

### 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.

**UPPER DIVISION COURSES**
**(Intended for Undergraduates)**

**310. Radio and Television News Writing and Editing (3) I, II**
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)**
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**
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)**
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) I**
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)**
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)I,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) I, II Cr/NC**
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.

**UPPER DIVISION COURSES**
**(Also Acceptable for Advanced Degrees)**

**500. Electronic Media Management (3) I, II**
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) I, 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) I, II**
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) I, 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) I, II**
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 nondramatic 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) I, II**
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 filmograph or animated motion picture. Practical experience in University sponsored productions.

**575. Technological Trends in Telecommunication (3) I**
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.**

## Urban Studies

Refer to "Interdisciplinary Programs" in this section of the catalog.



# Women's Studies

In the College of Arts and Letters

**OFFICE: Adams Humanities 3138**
**TELEPHONE: (619) 594-6524**

**Faculty**
Chair: Jones
Professors: Cayleff, Espín, 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.

**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 301, 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)

**301. Topics in Feminism (1-3)**
Feminism from varying disciplinary and cross-disciplinary perspectives to include femininity and feminism; socialism and feminism; future dreams and designs. Primarily for the general student. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

**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. Women-Identified Women (3)**
Prerequisite: Three upper division units in women's studies.
Historical, cultural, and social exploration of lesbianism in Western civilization. Topics include myths and stereotypes, homophobia, history and literature, psychological and political theories, 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 1993–1994

**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.

**Abut, 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, Elsie B. (1971)** ..... *Professor of English and Comparative Literature*
B.S., M.A., Ph.D., University of Oklahoma.

**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*
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**Bar-Lev, Zev (1979)** ..... *Professor of Linguistics*
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**Strom, David W. (1968)** ..... *Professor of Teacher Education*
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**Stumph, William E. (1983)** ..... *Professor of Chemistry*
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**Stutz, Frederick P. (1970)** ..... *Professor of Geography*
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**Sucato, Vincent (1974)** ..... *Assistant Professor of Social Work*
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**Sucec, Anthony A. (1967)** ..... *Professor of Physical Education*
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**Supernak, Janusz C. (1984)** ..... *Professor of Civil Engineering*
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**Suto, Masako (1984)** ..... *Professor of Electrical and Computer Engineering*
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**Sutton, L. Paul (1981)** ..... *Professor of Public Administration and Urban Studies*
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**Sweedler, Alan R. (1980)** ..... *Professor of Physics*
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**Sweedler-Brown, Carol O. (1975)** ..... *Associate Professor of Rhetoric and Writing Studies*
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**Swiniarski, Roman W. (1988)** ..... *Professor of Mathematical Sciences*
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**Szeto, Andrew Y. J. (1983)** ..... *Professor of Electrical and Computer Engineering*
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**Talbert, Freddie D. (1968)** ..... *Associate Professor of Astronomy*
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**Tarokh, Mahmoud (1990)** ..... *Professor of Mathematical Sciences*
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**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*
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**Terry, Linda L. (1990)** ..... *Associate Professor of Counseling and School Psychology*
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**Thal, Donna J. (1990)** ..... *Professor of Communicative Disorders*
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**Thayer, Mark A. (1981)** ..... *Professor of Economics*
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**Thile, Edmund L. (1967)** ..... *Professor of Communicative Disorders*
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**Thompson, Alba G. (1990)** ..... *Associate Professor of Mathematical Sciences*
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**Thompson, Gordon M. (1969)** ..... *Associate Dean, College of Education; Associate Professor of Counseling and School Psychology*
A.B., Muskingum College; M.Div., Pittsburgh Theological Seminary; M.A., San Diego State University; Ph.D., Arizona State University.

**Thompson, Larry D. (1982)** ..... *Associate Professor of Mechanical Engineering*
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**Thompson, Patrick W. (1990)** ..... *Professor of Mathematical Sciences*
B.S., Central Washington University; M.Ed., Ed.D., University of Georgia.

**Thorbjarnarson, Kathryn W. (1991)** ..... *Assistant Professor of Geological Sciences*
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**Thyagarajan, Kadayam S. (1980)** ..... *Professor of Electrical and Computer Engineering*
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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*
A.B., Gonzaga University; M.A., Ph.D., University of Chicago.

**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*
B.S., Jiwaji University, India; M.S., M.B.A., Ph.D., University of Missouri.

**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*
B.S., California State Polytechnic University, Pomona; M.B.A., D.B.A., University of Southern California.

**Vanderwood, Paul J. (1969)** ..... *Professor of History*
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**Vanier, Dinoo T. (1970)** ..... *Professor of Marketing*
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**Van Sickle, Douglas J. (1978)** ..... *Director, Counseling and Psychological Services*
B.S., University of Washington; M.A., Bradley University; Ph.D., University of Utah.

**Varalya, Nikhil P. (1988)** ..... *Professor of Finance*
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**Vartanian, Pershing (1968)** ..... *Professor of History*
B.S., Wayne State University; M.A., Columbia University; Ph.D., University of Michigan.

**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 Physical Education*
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**Vik, Gretchen N. (1975)** ..... *Professor of Information and Decision Systems*
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**Villarino, José R. (1969)** ..... *Professor of Mexican American Studies*
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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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**Wahl, Patricia R. (1990)** ..... *Professor of Nursing*
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**Walawender, Michael J. (1972)** ..... *Professor of Geological Sciences*
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**Walden O'Cull, Kathleen J. (1988)** ..... *Lecturer in Social Work*
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**Wang, Kuo Chang (1980)** ..... *Professor of Aerospace Engineering and Engineering Mechanics*
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**Watson, Maria-Barbara (1976)** ..... *Professor of Women's Studies*
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**Wauchope, Mary M. (1989)** ..... *Associate Professor of German*
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**Webb, Charlotte (1975)** ..... *Associate Professor of Linguistics*
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**Weeks, John R. (1974)** ..... *Professor of Geography*
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**Werner, Joan T. (1965)** ..... *Associate Professor of Sociology*
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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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**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 Family Studies and Consumer Sciences*
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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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**Williams, Kathy S. (1987)** ..... *Associate Professor of Biology*
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**Williams, Stephen J. (1980)** ..... *Professor of Public Health*
B.S., Carnegie-Mellon University; M.S., Massachusetts Institute of Technology; S.M., Sc.D., Harvard University.

**Williams, Susan L. (1990)** ..... *Associate Professor of Biology*
B.S., University of Michigan; M.S., University of Alaska; Ph.D., University of Maryland.

**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*
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**Willis, Winnie O. (1984)** ..... *Associate Professor of Public Health*
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**Wilson, Carlos G. (1992)** ..... *Professor of Spanish*
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**Wilson, Carole (1981)** ..... *Associate Librarian*
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**Wilson, Patricia A. (1990)** ..... *Assistant Professor of Public Administration and Urban Studies*
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**Wolf, R. Craig (1987)** ..... *Professor of Drama*
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**Wong-Boren, Adrian (1983)** ..... *Professor of Accountancy*
C.P.A., E.C.A., Universidad de Coahvila; M.B.A., Instituto de Estudios Superiores de Monterrey; Ph.D., Virginia Polytechnic Institute.

**Woo, Catherine Yi-yu Cho (1970)** ..... *Professor of Chinese*
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**Wood, James L. (1975)** ..... *Professor of Sociology*
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**Woodson, John H. (1961)** ..... *Professor of Chemistry*
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**Wotruba, Thomas R. (1962)** ..... *Professor of Marketing*
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**Wozniak, Dolores A. (1976)** ..... *Acting Dean, College of Health and Human Services; Professor of Nursing*
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**Wright, Penny L. (1972)** ..... *Professor of Management*
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**Wright, Richard D. (1964)** ..... *Professor of Geography*
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**Wulfeck, Beverly B. (1994)** ..... *Associate Professor of Communicative Disorders*
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**Wulfemeyer, K. Tim (1976, except F'80-S'87)** ..... *Professor of Journalism*
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**Yang, Yeong-Ling (1988)** ..... *Assistant Professor of Information and Decision Systems*
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**Yapelli, Tina Marie (1985)** ..... *Associate Professor of Art*
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**Yaremko, Robert M. (1969)** ..... *Professor of Psychology*
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**Yates, Charles D. (1970)** ..... *Professor of Music*
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**Yeager, Bill (1985)** ..... *Professor of Music*
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**Yerger, Leslie F. (1977)** ..... *Director, International Business Development, College of Extended Studies*
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**Young, Arthur (1967)** ..... *Professor of Astronomy*
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**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*
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**Zedler, Paul H. (1969)** ..... *Professor of Biology*
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**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*
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**Zupko, John A. (1989)** ..... *Associate Professor of Philosophy*
B.A., University of Waterloo; M.A., Ph.D., Cornell University.

**Zyskind, Judith W. (1982)** ..... *Professor of Biology*
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# Emeritus Faculty

**Golding, Brage, Ph.D., President (1972-1977)** — *Professor of Chemistry and Engineering*

**Abbott, Mitchel T., Ph.D. (1964-1992)** — *Professor of Chemistry*

**Ackerly, Jr., Robert S., Ed.D. (1963-1990)** — *Counselor of the University Advising Center; Professor of Teacher Education*

**Adams, John R., Ph.D. (1928-1968)** — *Chairman, Division of Humanities Professor of English*

**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*

**Alf, 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*

**Babilot, 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*

**Becker, Gerald A., Ph.D. (1958-1986)** — *Professor of Mathematical Sciences*

**Bedore, Robert L., M.S.M.E., Professional Degree in Mechanical Engineering (1959-1992)** — *Professor of Mechanical Engineering*

**Bell, Jr., Charles B., Ph.D. (1981-1992)** — *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*

**Berge, Dennis E., Ph.D. (1963-1992)** — *Professor of History*

**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*

**Bilterman, 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*

**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*

**Brodshatzer, Arthur, D.B.A. (1956-1986)** — *Professor of Accountancy*

**Brooks, Baylor, B.A. (1931-1966)** — *Professor of Geology*

**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*

**Brown, William L., B.S.E.E., Professional Degree in Electrical Engineering (1962-1983)** — *Associate Professor of Electrical and Computer Engineering*

**Bruce, Paul, Ph.D. (1957-1989)** — *Professor of Counselor Education*

**Brunson, Theodore R., D.M.A. (1966-1991)** — *Professor of Music*

**Bryant, Steven J., Ph.D. (1964-1978)** — *Associate Professor of Mathematical Sciences*

**Burgess, William C., Ed.D. (1961-1992)** — *Professor of Health Science*

**Burnett, Gail A., Ph.D. (1947-1968)** — *Professor of English and Classics*

**Burnside, Houston M., Ph.D. (1968-1991)** — *Professor of Teacher Education*

**Butler, Harry, Ph.D. (1975-1990)** — *Professor of Social Work*

**Campbell, L. Beryl, M.A. (1947-1973)** — *Associate Professor of Elementary Education*

**Cannon, Nona H., Ed.D. (1959-1979)** — *Professor of Family Studies and Consumer Sciences*

**Capp, Martin P., M.S. (1953-1975)** — *Dean, School of Engineering*

**Carlson, Hilding B., Ph.D. (1948-1969)** — *Professor of Psychology*

**Carnevale, James P., Ph.D. (1967-1992)** — *Professor of Counseling and School Psychology*

**Carpenter, Roger E., Ph.D. (1963-1993)** — *Professor of Biology*





**Carter, J. E. Lindsay, Ph.D. (1962-1992)** — *Professor of Physical Education*

**Cave, Mary F., M.A. (1946-1977)** — *Associate Professor of Physical Education*

**Chan, S. Yun, Ph.D. (1965-1979)** — *Professor of Electrical Engineering*

**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*

**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, Charles F., Ph.D. (1971-1988)** — *Professor of Biology*

**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*

**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*

**Dickerson, Mary E., Ph.D. (1967-1990)** — *Assistant Professor of Family Studies and Consumer Sciences*

**Dickinson, Fidelia 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*

**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*

**Fisher, J. Sherrick, Ph.D. (1953-1977)** — *Professor of Elementary Education*

**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*

**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*

**Gefter, 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*

**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*

**Gregor, Mary J., Ph.D. (1982-1992)** — *Professor of Philosophy*

**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*

**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*

**Harrison, Robert C., Ph.D. (1953-1986)** ..... *Professor of Psychology*

**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*

**Hostetler, 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*

**Ingham, Muriel B., Ph.D. (1967-1981)** ..... *Professor of English*

**Inskeep, Jr., James E., Ph.D. (1960-1990)** ..... *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., Doctorat (1969-1986)** ..... *Professor of French*

**Jackson, Everett Gee, M.A. (1930-1963)** ..... *Professor of Art*

**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*

**Kaplan, Oscar J., Ph.D. (1946-1983)** ..... *Professor of Psychology*

**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*

**Kessler, Lois P., M.A. (1969-1990)** ..... *Associate Professor of Health Science*

**Khalil, 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*

**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, Thelma D., Ph.D. (1969-1975)** ..... *Professor of Counselor Education*

**Mann, Richard L., M.S.E.E. (1968-1982)** ..... *Professor of Electrical and Computer 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. (1966-1985)** ..... *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*

**McEowen, 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*

**Messier, Leonard N., Ph.D. (1946-1979)** ..... *Professor of French*

**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*

**Mouratides, 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'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*
**Pincetl, 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*
**Ptacek, Anton D., Ph.D. (1965-1992)** ..... *Associate Professor of Geological Sciences*
**Quiett, 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*
**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*
**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*
**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*
**Rohfleisch, Kramer, Ph.D. (1947-1974)** ..... *Professor of History*
**Rohfleisch, 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*
**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*
**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*
**Schrupp, Manfred H., Ph.D. (1948-1974)** ..... *Dean, School of Education; Professor of Secondary Education*
**Schutte, William H., M.S. (1947-1975)** ..... *Professor of Physical Education*
**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*
**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*
**Springston, Christine, M.A. (1930-1966)** ..... *Professor of Music*
**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*
**Van de Wetering, R. Lee, Ph.D. (1960-1992)** ..... *Professor of Mathematical Sciences*
**Van Steenbergen, 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*
**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*
**Wijnholds, Heiko J., Jur.D. (Econ.) (1967-1980)** ..... *Professor of Finance*
**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*
**Wolf, Ernest M., Ph.D. (1947-1976)** ..... *Professor of German*
**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*
**Yarborough, John M., Ph.D. (1959-1972)** ..... *Director of Housing; Professor of Education*
**Yesselman, Charlotte B., Ph.D. (1967-1988)** ..... *Professor of Teacher Education*
**Ziegenfuss, George, Ed.D. (1948-1980)** ..... *Professor of Physical Education*



# Part-Time Faculty 1993–1994

## ARTS AND LETTERS

**Abbott, Donald R.,** Ph.D., History
**Adams, Nancy R.,** Ph.D., History
**Adler, Frances P.,** M.F.A., English; Women's Studies
**Baksh, Michael G.,** Ph.D., Anthropology
**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; Women's 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
**Callaway, Janet S.,** M.A., Rhetoric and Writing Studies
**Carella, Kathleen R.,** M.A., Rhetoric and Writing Studies
**Carrico, Richard L.,** M.A., American Indian Studies
**Chagal, Vladimir E.,** Ph.D., German
**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
**Conway, Fred J.,** Ph.D., Anthropology
**Crane, Peggy F.,** M.S., Economics
**Crawford, Kathleen A.,** M.A., History
**Crouthamel, Steven J.,** M.A.T., M.A., American Indian Studies
**Davis, Dennis A.,** Ph.D., Africana Studies
**Dixon, Juanita,** M.A., American Indian Studies
**Dixon, Patricia,** M.A., American Indian Studies
**Dudley, Cynthia L.,** M.A., Rhetoric and Writing Studies
**Durn, Sandra K.,** M.A., Economics
**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
**Fixmer, Clyde H.,** Ph.D., Rhetoric and Writing Studies
**Foley, John A.,** Ph.D., History
**Freilicher, Melvyn S.,** C.Phil., English
**Friberg, Runa R.,** M.A., Rhetoric and Writing Studies
**Garcia, Karen Diana,** M.F.A., Mexican American Studies; Rhetoric and Writing Studies
**Gillman, John L.,** Ph.D., Religious Studies
**Grajeda, Leilani,** M.A., Rhetoric and Writing Studies
**Greene, Myron,** M.A., History
**Guthrie, Wayne L.,** Ph.D., History
**Harriff, Richard B.,** Ph.D., Economics
**Henke, Silke,** Ph.D., German
**Hernandez-Fujigaki, Jorge,** Ph.D., Mexican American Studies
**Hoffman, Catherine A.,** M.A., Rhetoric and Writing Studies
**Ingram, III, James W.,** M.A., Political Science
**Joyce, Barry A.,** M.A., History
**Kappel, Lawrence,** Ph.D., English
**Katungi, Nathan,** M.A., Africana Studies
**Kelly, Mary L.,** M.A., Women's Studies
**Kleiber, Nancy L.,** Ph.D., Women's Studies
**Krekorian, Michael H.,** M.F.A., English
**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
**Mattingly, Doreen J.,** M.A., Women's Studies
**McNulty, Mark A.,** M.A., Economics
**Menchaca, Miguel M.,** M.A., Mexican American Studies
**Mendez, Armando E.,** M.A., Rhetoric and Writing Studies
**Mestas, Hector S.,** M.A., Mexican American Studies
**Miller, Elise,** M.A., Rhetoric and Writing Studies
**Miyamoto, Yumi,** M.A., Linguistics
**Mueller, Howard R.,** Ph.D., Religious Studies
**Nunez, Rene,** M.A., Mexican American Studies
**Okuma, Laurie A.,** M.F.A., English; Rhetoric and Writing Studies
**Palmer, Mona G.,** M.A., Classics and Humanities
**Paynter, Edward L.,** Ph.D., History
**Perez, Marcia,** M.A., German
**Phillips, Ashley E.,** M.A., Women's Studies
**Potts, Stephen W.,** Ph.D., English
**Putko, Carole A.,** M.A., M.A.T., History
**Putman, John C.,** M.A., History
**Quinn, Ronald J.,** Ph.D., History
**Reed, William R.,** B.A., Rhetoric and Writing Studies
**Renner, Lynette E.,** M.A., Rhetoric and Writing Studies
**Rockland, Steven G.,** M.A., M.S., Economics
**Rowden, Tonita H.,** M.A., English
**Roy, Carolyn S.,** C.Phil., History
**Russ, III, John E.,** M.B.A., Economics
**Rutherford, Tracy,** M.A., Women's Studies
**Schelhorse, Larry D.,** Ph.D., Economics
**Shahrokhi, Shahrokh,** Ph.D., Economics
**Shaver, Barbara M.,** Ph.D., Women's Studies
**Shenoy, Vasanthi,** Ph.D., History
**Sherline, Phyllis,** M.A., Rhetoric and Writing Studies
**Shiba, Kathie E.,** M.A., Women's Studies
**Smith, Wendy L.,** M.A., Rhetoric and Writing Studies
**Spirito, Donald P.,** M.A., Economics
**Stagnaro, Roberta J.,** M.A., English; Rhetoric and Writing Studies
**Stamon, Peggy J.,** Ph.D., English; Rhetoric and Writing Studies
**Stoddard, Michael Mathis,** Ph.D., Political Science
**Thomas, Jesse J.,** Ph.D., Religious Studies
**Thomas, Marie D.,** Ph.D., Women's Studies
**Tomaszewski, Fiona K.,** Ph.D., History
**Tomlinson-Rustick, Margaret A.,** M.A., Rhetoric and Writing Studies
**Underwood, Katherine A.,** Ph.D., Political Science
**Velasco, Alfredo F.,** Ph.D., Mexican American Studies
**Wawrytko, Sandra A.,** Ph.D., History
**Weeks, Jr., William E.,** Ph.D., History
**Wittenborn, Allen,** Ph.D., History





## BUSINESS ADMINISTRATION

**Anderson, Donald E.,** M.A., Information and Decision Systems
**Bredestege, Joseph J.,** M.B.A., Finance
**Coleman, Simon F.,** J.D., Management
**Drost, Ellen A.,** M.B.A., Management
**English, Richard J.,** M.S., Marketing
**Garrett, Kenneth C.,** B.B.A., Accountancy
**Glazer, Jeffrey W.,** M.B.A., Management
**Griffith, Peter W.,** B.S., Finance
**Israel, Robert D.,** M.Div., Management
**Judge, Robert A.,** M.B.A., Information and Decision Systems
**Litchfield, Robert S.,** M.A., Information and Decision Systems
**Olson, James E.,** M.B.A., Finance
**Olson, Lois B.,** D.B.A., Marketing
**Rohy, Louise P.,** M.B.A., Management
**Rowe, Casey M.,** M.S., Accountancy
**Sannwald, William W.,** M.B.A., Marketing
**Shaw, Edward A.,** Ph.D., Management

## EDUCATION

**Alfaro, Cristina,** M.A., Policy Studies in Language and Cross-Cultural Education
**Annicharico, Joseph R.,** Ph.D., Special Education
**Babby, Barbara M.,** B.A., Teacher Education
**Bee, Mary,** M.A., Teacher Education
**Bjornson, Patricia J.,** M.A., Teacher Education
**Boucher, Barbara O.,** M.A., Teacher Education
**Brockman, Jr., Robert L.,** M.S., Administration, Rehabilitation and Postsecondary Education
**Brucker, Eugene F.,** M.A., Administration, Rehabilitation and Postsecondary Education
**Coover, Kris W.,** M.A., Special Education; Teacher Education
**de la Garza, Bridget,** M.A., Special Education
**Farley, Tania H.,** M.S., Administration, Rehabilitation and Postsecondary Education
**Flood, Sharon R.,** Ed.D., Teacher Education
**French, Charlotte B.,** Ed.D., Teacher Education
**Gunst, Rosemary,** B.S., Teacher Education
**Gwinnup, Judith A.,** M.A., Special Education
**Hall, Robert B.,** M.A., Administration, Rehabilitation and Postsecondary Education
**Haney, Jarleen,** M.S., Teacher Education
**Heffernan, Richard N.,** Ph.D., Special Education
**Hider, Jacqueline J.,** M.A., Teacher Education
**Holowach, Kathleen E.,** M.S., Special Education; Teacher Education
**Hurtado, Juan,** Ph.D., Policy Studies in Language and Cross-Cultural Education
**Jackson, Gloria,** M.S., Counseling and School Psychology
**Jarosz, Eva J.,** M.Ed., Counseling and School Psychology
**Johnson, Rhonda J.,** M.A., Counseling and School Psychology
**Jones, Edward C.,** M.S., Administration, Rehabilitation and Postsecondary Education
**Kasendorf, Stacey J.,** M.A., Special Education
**Kelso, Brady P.,** M.A., Teacher Education
**Kramer, Ruth H.,** M.A., Special Education
**Mathews, Diane,** M.A., Special Education
**McCabe, Karen I.,** M.S., Administration, Rehabilitation and Postsecondary Education
**McClure, Melinda K.,** M.A., Special Education
**McNary, Nancy W.,** M.A., Teacher Education
**Meerson, Mary Lou J.,** M.A., Teacher Education
**Mendoza, Clifford,** M.A., Teacher Education
**Messina, Constance,** M.S., Counseling and School Psychology
**Molnar, Laura,** M.A., Special Education
**Moore, Barbara K.,** Ph.D., Teacher Education
**Moriarty, Gail E.,** M.A., Special Education
**Munoz, George,** M.A., Educational Technology
**Myerson, Gary W.,** M.A., Special Education
**Patterson, Gail,** M.A., Special Education
**Perkowski, Sharon M.,** M.S., Counseling and School Psychology
**Peterson, Diana S.,** M.S., Counseling and School Psychology
**Pitard, Peter E.,** M.Ed., Teacher Education
**Prime, Carol S.,** M.A., Teacher Education
**Raphael, Philip J.,** Ph.D., Counseling and School Psychology
**Rivas, Paquita E.,** M.S., Counseling and School Psychology
**Robinson, Marilyn,** M.A., Counseling and School Psychology
**Sage, Maureen E.,** Ed.D., Teacher Education
**Saucedo, J. Ascención,** M.S., Counseling and School Psychology
**Sax, Caren L.,** M.A., Special Education
**Seaton, Gary W.,** M.A., Special Education
**Siegel, Marlene C.,** M.A., Counseling and School Psychology
**Siegfried, Thomas L.,** M.S., Administration, Rehabilitation and Postsecondary Education
**Smith, Lisa M.,** M.S., Counseling and School Psychology
**Sousa, Mary Ellen,** M.Ed., Special Education
**Stein, Robert,** Ph.D., Special Education
**Terry-Hahn, Brenda C.,** M.A., Teacher Education
**Traupmann, Kenneth L.,** Ph.D., Special Education
**Turner, Christine A.,** M.S.W., Counseling and School Psychology
**Villa, Dario D.,** M.S., Administration, Rehabilitation and Postsecondary Education; Counseling and School Psychology
**Worthington, Mary L.,** M.A., Teacher Education
**Wright, Debra J.,** M.A., Administration, Rehabilitation and Postsecondary Education

## ENGINEERING

**Agahtehrani, Abdolreza,** Ph.D., Mechanical Engineering
**Allahyari, Sohrab A.,** M.S., Electrical Engineering
**Assaderaghi, Farhad,** M.S., Civil Engineering
**Bakhru, Keshoolal,** Ph.D., Electrical Engineering
**Berger, Vera,** Ph.D., Civil Engineering
**Callaway, Peggy Anne,** M.A., Mechanical Engineering
**Cole, Martin A.,** M.S., Mechanical Engineering
**Cox, Malvin M.,** B.S., Electrical Engineering
**Dhingra, Kailash C.,** Ph.D., Electrical Engineering
**Furry, Robert G.,** M.S., Civil Engineering
**Hill, Joseph C.,** M.S., Civil Engineering
**Khwaja, Ziauddin,** Ph.D., Electrical Engineering
**Larson, Peter G.,** M.A., Mechanical Engineering
**Lee, Ti-Ta,** Ph.D., Civil Engineering
**McElmury, Scott S.,** Ph.D., Civil Engineering
**Mohssenzadeh, Morteza,** M.S., Mechanical Engineering
**Sadeghi, Reza S.,** M.S., Mechanical Engineering
**Stump, Cary J.,** M.Arch., Civil Engineering
**Terry, Ann H.,** M.S., Civil Engineering

## HEALTH AND HUMAN SERVICES

**Adler, Jacqueline B.,** M.A., Communicative Disorders
**Bassoff, Betty Z.,** D.S.W., Public Health
**Bennett, Thomas L.,** Ph.D., Social Work
**Bidwell, Janice D.,** M.N., Nursing
**Branch, Carol A.,** M.A., Communicative Disorders
**Carrillo, Terry E.,** Ph.D., Social Work
**Ciggia, Donna M.,** M.S., Nursing
**Cone, Janice W.,** Ph.D., Social Work
**Conway, Terry L.,** Ph.D., Public Health
**Crary, Dee M.,** M.S., Public Health
**Cummings, Susan H.,** M.N., Nursing
**Dacso, Sheryl E.,** J.D., Dr.P.H., Public Health
**Dotson, Leroy,** M.A.Ed., Public Health
**DuBois, Barbara C.,** Ph.D., Health and Human Services, General
**Eckhart, Judith G.,** D.N.Sc., Nursing
**Engelberg, Moshe,** Ph.D., Public Health
**Fischer, Marlowe K.,** M.A., Communicative Disorders
**Fullerton, Judith T.,** Ph.D., Public Health



**Golden, Kenneth M.**, Ed.D., Social Work
**Golden, Lauren J.**, M.S.W., Social Work
**Haley, Rhoberta J.**, M.N., Nursing
**Isom, Ruby N.**, Ph.D., Public Health
**Katzman, Jodi S.**, M.S.N., Nursing
**Keith, Elizabeth A.**, M.S.W., Social Work
**Launer, Patricia B.**, Ph.D., Communicative Disorders
**Lawson, Carolyn M.**, M.S.N., Nursing
**Long, Linda M.**, M.S.N., Nursing
**Lopes, Charlotte M.**, M.A., Communicative Disorders
**McCarthy, Doris R.**, M.A., M.S.N., Nursing
**Miller, Mary Ellin**, M.S.N., Nursing
**Milstein, Marjorie F.**, M.S.W., Social Work
**Munn, Susan**, Ph.D., Public Health
**Okamura, Amy M.**, M.S.W., Social Work
**Packard, Thomas R.**, D.S.W., Social Work
**Sanborn, Beverly J.**, M.S.W., Social Work
**Scheinberg, Judith C.**, Ph.D., Communicative Disorders
**Segars, Lance B.**, Ph.D., Social Work
**Shuman, Tarek M.**, Ph.D., Health and Human Services, General; Social Work
**Siegel, Marci W.**, M.S.W., Social Work
**Sproul, Annette**, M.S.W., Social Work
**Takvorian, Diane L.**, M.S.W., Social Work
**Talavera, Gregory A.**, M.D., M.P.H., Public Health
**Thedell, Terry D.**, Ph.D., Public Health

## PROFESSIONAL STUDIES AND FINE ARTS

**Adams, Timothy B.**, M.A., Art
**Albert, Cliff E.**, B.S., Journalism
**Anhorn, Larry M.**, B.S., Physical Education
**Arens, William F.**, B.A., Journalism
**Asebedo, Anna Maria**, M.F.A., Art
**Barkett, Ronald S.**, M.A., Public Administration
**Beck, Andrea P.**, M.S., Recreation, Parks and Tourism
**Behana, Elinor E.**, M.S., Family Studies and Consumer Sciences
**Bergendorff, Fred L.**, Ph.D., Telecommunications and Film
**Burke, James P.**, M.A., Physical Education
**Burns, Larry A.**, J.D., Public Administration
**Christensen, Marcus F.**, B.S., Public Administration
**Cleary, John J.**, J.D., Public Administration
**Cleveland, James O.**, Ed.D., Family Studies and Consumer Sciences
**Drucquer, Kathryn L.**, B.S., Recreation, Parks and Tourism
**Duehring, Laura J.**, Ed.D., Physical Education
**Eaton, Robert**, M.F.A., Music
**Edmiston, LaBelle L.**, B.S., Music
**Elliott, Lynn H.**, M.S., Recreation, Parks and Tourism
**Ellison, Deborah L.**, B.A., B.S., Physical Education
**Fare, Gerald L.**, M.S., Public Administration
**Feldman, David A.**, M.S., Journalism
**Fragasso, Gerald M.**, B.S., Physical Education
**Francis, Lloyd G.**, B.A., Physical Education
**Freedman, Jonathan B.**, B.A., Journalism
**French, Michael C.**, Ph.D., Family Studies and Consumer Sciences
**Gillette, Glenn A.**, Music
**Gittings, Richard W.**, M.P.A., Public Administration
**Goss, John D.**, M.P.A., Public Administration
**Grebl, James W.**, M.A., Art
**Greer, Carolyn T.**, M.A., Physical Education
**Helzer, Richard A.**, M.F.A., Music
**Hildebrand, John M.**, M.A., Telecommunications and Film
**Holly, Dianne J.**, M.A., Drama
**Huth, Eric S.**, B.A., Recreation, Parks and Tourism
**Ingrum, Mary Kathryn**, Ed.D., Family Studies and Consumer Sciences
**Jacks, James C.**, Ph.D., Public Administration
**Jennings, Richard C.**, M.Mus., Drama
**Jones-Lopez, JoAnn L.**, M.A., Recreation, Parks and Tourism
**Jordan, Robert A.**, M.A., Telecommunications and Film
**Kahn, Gregory M.**, A.B., Telecommunications and Film
**Katz, Martin B.**, M.A., Drama
**Keely, Richard C.**, M.F.A., Art
**Kempton, David L.**, M.S., Recreation, Parks and Tourism
**Kerr, Barry**, Ph.D., Physical Education
**Kilmer, Brian J.**, M.A., Music
**King, James G.**, B.S., Journalism
**Klein, Jeannette E.**, M.A., Art
**Koverman, Paul T.**, Music
**Landon, Alexander L.**, J.D., Public Administration
**Larlham, Margaret C.**, M.A., Drama
**Litrownik, Hollis M.**, M.A., Art
**Lord, Lesli K.**, Ph.D., Public Administration
**Love, Syd**, M.A., Journalism
**Luera, Maryann**, M.F.A., Art
**Lussa, Sue A.**, M.S., Journalism
**Lustig, James B.**, M.S., Recreation, Parks and Tourism
**MacKenzie, Mary R.**, M.S., Music
**McBride, James F.**, M.S., Journalism
**McCabe, Mary E.**, D.B.A., Journalism
**McGrory, John R.**, M.P.A., Public Administration
**McKenzie, Randi E.**, M.Ed., Physical Education
**McMahon, Pete E.**, M.A., Physical Education
**McTighe, John J.**, M.P.A., Public Administration
**Mello, Bonnie L.**, M.A., Family Studies and Consumer Sciences
**Mendlen, Diana M.**, B.S., Recreation, Parks and Tourism
**Metts, Jr., C. Rodney**, Ph.D., Telecommunications and Film
**Moynier, Barbara J.**, M.S., Physical Education
**Mueller, Michelle M.**, M.B.A., Journalism
**Mulcahy, Claudia**, B.S., Recreation, Parks and Tourism
**Myers, Donald N.**, Ph.D., Family Studies and Consumer Sciences
**Nakamura, Kotaro**, M.A., Art
**Neill, R. William**, M.A., Telecommunications and Film
**Nelson, Karen P.**, M.A., Physical Education
**Novak, Daniel F.**, M.A., Telecommunications and Film
**Oleff, Howard**, B.S., Telecommunications and Film
**Pancner, Mary M.**, B.S., Recreation, Parks and Tourism
**Parker, Richard A.**, Ph.D., Public Administration
**Pedersen, D. Kent**, J.D., Public Administration
**Rahn, Linda J.**, B.A., Recreation, Parks and Tourism
**Riddle, January**, M.A., Journalism
**Riggan, Jr., Royce B.**, B.S., Recreation, Parks and Tourism
**Sauvajot, John B.**, M.S., Public Administration
**Schamu, Sara J.**, B.A., Art
**Schneider, Joseph F.**, M.A., Journalism
**Siprut, Mark J.**, M.F.A., Art
**Smith, Dana M.**, M.C.P., Public Administration
**Smith, Gregory J.**, M.P.A., Public Administration
**Smith, Tracey L.**, M.A., Recreation, Parks and Tourism
**Toal, Cynthia L.**, M.S., Physical Education
**Van Camp, Steven P.**, M.D., Physical Education
**Walujo, Djoko**, M.A., Music
**Watson, Deanna J.**, M.A., Music
**Welsh, Anne M.**, Ph.D., Music
**Wenten, Nyoman**, M.F.A., Music
**Wilkins, Charles J.**, M.A., Public Administration
**Woolsey, Ralph A.**, Telecommunications and Film
**Wright, Jr., Robert A.**, B.S., Art
**Wu, Sharon**, M.F.A., Telecommunications and Film





**Yordan, Philip**, B.L., Telecommunications and Film
**Younker, Leah I.**, M.F.A., Art

## SCIENCES

**Alexander, Joel E.**, Ph.D., Psychology
**Bauder, Ellen T.**, Ph.D., Biology
**Bendall, Sharon F.**, M.S., Physics
**Camp, Victor E.**, Ph.D., Geological Sciences
**Cerbone, Ralph J.**, Ph.D., Physics
**Dean, Robert J.**, M.A., Natural Science
**DuBois, Lisa G.**, Ph.D., Geological Sciences
**Goldin, Eric M.**, Ph.D., Biology; Physics
**Grismer, L. Lee**, Ph.D., Biology
**Hanscom, Patricia R.**, M.S., Biology
**Herzig, Charles T.**, Ph.D., Geological Sciences
**Hokoda, Audrey J.**, Ph.D., Psychology
**Hood, Jr., John M.**, Ph.D., Physics
**Johnson, Nancy E.**, Ph.D., Psychology
**Kobus, David A.**, Ph.D., Psychology
**Kroeker, Leonard P.**, Ph.D., Psychology
**Kus, Barbara E.**, Ph.D., Biology
**Lampe, Cynthia M.**, M.S., Geological Sciences
**Magistrale, Harold W.**, Ph.D., Geological Sciences
**Martin, Estralita M.E.**, Ph.D., Biology
**Matloff, Jeffrey L.**, Ph.D., Psychology
**McDonald, Barbara A.**, Ph.D., Psychology
**Meckstroth, Phyllis J.**, M.A.T., Mathematical Sciences
**Montgomery, Stephen J.**, M.S., Biology
**Roeder, Phoebe E.**, Ph.D., Natural Science
**Root, William A.**, M.S., Mathematical Sciences
**Sabbadini, Gail A.**, M.A., Biology
**Sanchez-Castiglioni, Rosalinda A.**, Ph.D., Psychology
**Sieber, William J.**, Ph.D., Psychology
**Sparks, Steven**, Ph.D., Biology
**Stahmer, Aubyn C.**, Ph.D., Psychology
**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, Sara L.**, M.S., Natural Science
**Vickers, Jr., Ross R.**, Ph.D., Psychology
**Wagaman, Pamela C.**, Ph.D., Biology
**Wingerd, Mala S.**, M.S., Biology
**Wolfe, Connie J.**, Ph.D., Biology

## ATHLETICS

**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.
**Fuller, Anthony I.**, M.A.
**Gabel, Myles J.**, B.A.
**Gardner, Susanne L.**, B.A.
**Haines, Mark E.**, M.A.
**Harrick, James R.**, B.A.
**Henn, John T.**, B.S.
**Holland, James P.**, B.S.
**Johnson, Gary B.**, M.S.
**Luginbill, John A.**, M.Ed.
**Mandeville, Robert L.**, B.A.
**Mattera, Peter A.**, M.A.
**McDaniel, LeCharls B.**, B.S.
**Nelson, John.**, M.A.
**Ohton, David P.**, B.S.
**Peters, Carolyn R.**, M.A.
**Plunkett, Carol S.**, M.S.
**Pola, Kennedy**, M.A.
**Schramm, David A.**, A.B.
**Shafer, Steve E.**, M.S.
**Sheffield, Rhan D.**, B.A.
**Shira, Charity D.**, B.S.
**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.
**Warner, James M.**, B.S.
**Warner, Mark A.**, B.A.
**White, Edward A.**, B.A.
**Zook, Jenelle L.**, M.S.

## IMPERIAL VALLEY CAMPUS

**Balch, Patrick E.**, M.A.
**Bowen, Von L.**, M.S.T.
**Brady, Richard C.**, Ph.D.
**Briggs, John H.**, M.S.
**Carpenter, Jane S.**, M.A.
**Carrasco, Santos Arellanes**, Ph.D.
**Cornejo, Ricardo J.**, Ph.D.
**Derakhshan, Sepehr**, M.A.
**Duckworth, Joseph B.**, Ed.D.
**Elig, David**, B.A.
**Elizondo, Sergio D.**, Ph.D.
**Gomez-Montero, Sergio**, B.A.
**Gonzalez, Refugio A.**, M.S.
**Jacklich, Joel**, M.F.A.
**Karge, Belinda D.**, Ph.D.
**Lujan, Jaime L.**, Ph.D.
**Lutz, Susie M.**, M.S.
**Murray, David D.**, M.A.
**Nagel, Thomas S.**, Ph.D.
**Nunn, Pauline**, M.A.
**Palese, Kate H.**, M.A.
**Parker, Richard A.**, Ph.D.
**Pearson, Harry**, M.A.
**Pugh, Darrell L.**, Ph.D.
**Rousseau, William**, M.A.
**Salcido, Pat**, M.A.
**Samuelson, Leslie J.**, M.S.
**Shaver, Barbara M.**, Ph.D.
**Sherlock, Warren T.**, M.A.
**Shinn, Mary O.**, M.Ed.
**Shumaker, Andrew**, B.A.
**Stamon, Peggy J.**, Ph.D.
**Villarino, José R.**, Ph.D.
**Wilkerson, Paula Q.**, M.A.



# Adjunct Faculty

## ARTS AND LETTERS

**Adler, Frances P.,** M.F.A., Women's Studies
**Adona, Gabriel,** M.S., Rhetoric and Writing Studies
**Andreatta, Susan L.,** Ph.D., Anthropology
**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
**Dapper, Roxana M.,** M.A., English
**Davis, Janet J.,** M.A., History
**Delys, Paul A.,** M.S., Rhetoric and Writing Studies
**DuBois, Barbara C.,** Ph.D., Anthropology
**Easland-Whitney, Phyllis A.,** Ph.D., Anthropology
**Feldman, Arthur W.,** Ph.D., Arts and Letters, General
**Feng, Yu,** Ph.D., English
**Fielden, Carl,** M.A., Rhetoric and Writing Studies
**Flor, Salvador B.,** M.S., Rhetoric and Writing Studies
**Gabay, Janis T.,** M.A., Rhetoric and Writing Studies
**Gadalla, Mahmoud Saad,** Ph.D., Sociology
**Gross, George T.,** Ph.D., Anthropology
**Hazen, William E.,** Ph.D., Arts and Letters, General
**Hesse, Everett W.,** Ph.D., Spanish
**Holmes, Frank,** J.D., Rhetoric and Writing Studies
**Ingham, Charles A.,** M.Phil., English
**Johnson, Willard L.,** Ph.D., American Indian Studies
**Jones, Robert L.,** M.F.A., Arts and Letters, General
**Keesey, Miriam,** M.A., Rhetoric and Writing Studies
**Kern, Irving,** B.S., Political Science
**Klicperova, Martina,** Ph.D., Political Science
**Lin, Thomas Yun,** B.A., Arts and Letters, General
**Lindburg, Donald G.,** Ph.D., Anthropology
**Linsky, Mark I.,** M.A., Political Science
**Matthews, Fred,** Ph.D., History
**McBrearty, Jenean,** M.A., Sociology
**Moser, Robert J.,** Ph.D., Sociology
**Mudgett, Carol A.,** Ph.D., Anthropology
**Newman, Otto,** Ph.D., Sociology
**Novak, Gary Lee,** M.A., Sociology
**Palacios, Gonzalo T.,** Ph.D., Arts and Letters, General
**Rady, Donald E.,** Ph.D., Arts and Letters, General
**Rea, Amadeo M.,** Ph.D., Anthropology
**Robinson, Millie,** M.A., Rhetoric and Writing Studies
**Rodriguez, Elena F.,** M.A., Sociology
**Rodriguez-Gonzalez, Raul,** M.A., Mexican American Studies
**Rojas, Gonzalo,** M.A., Mexican American Studies
**San Juan, Joel H.,** M.A., Sociology
**Schwartz, Rosalie,** Ph.D., History
**Sharon, Douglas G.,** Ph.D., Anthropology
**Shipek, Florence C.,** Ph.D., American Indian Studies
**Shor, Francis R.,** Ph.D., History
**Takahashi, Hisashi,** M.A., History
**Thomas, Marie D.,** Ph.D., Women's Studies
**Tyson, Rose A.,** M.A., Anthropology
**Tyzzer, III, Robert N.,** Ph.D., Anthropology
**White, Christopher W.,** M.A., Anthropology
**Zondag, Cornelius H.,** Ph.D., Arts and Letters, General

## BUSINESS ADMINISTRATION

**Onozaki, Tsuneo L.,** M.A., Business Administration, General
**Shields, Michael D.,** Ph.D., Accountancy
**Wei, Dongqing,** M.Phil., Finance

## EDUCATION

**Block, Martin J.,** J.D., Counseling and School Psychology
**Fitch, Suzanne,** Ed.D., Special Education
**Holmes, Teresa A.,** M.Ed., Counseling and School Psychology
**Jensen, Mogens R.,** Ph.D., Counseling and School Psychology
**Nachison, Jon,** Ph.D., Counseling and School Psychology
**Nesvig, David T.,** Ed.D., Counseling and School Psychology
**Ollerman, Dennis L.,** M.A., Counseling and School Psychology
**Robertson, David C.,** M.S., Counseling and School Psychology
**Saldana, Justin,** M.S., Policy Studies in Language and Cross-Cultural Education
**Sticht, Thomas G.,** Ph.D., Educational Technology
**Vidal, Jane A.,** M.S., Counseling and School Psychology

## ENGINEERING

**Arieli, Rimon,** D.Sc., Aerospace Engineering
**Bhaskaran, K. K.,** M.S., Mechanical Engineering
**Chiu, Tzang-Min,** B.S.M., Civil Engineering
**Chuang, Alexander S.,** Ph.D., Mechanical Engineering
**Cohen, Hanun,** M.Sc., Aerospace Engineering
**Hallock, Bradley,** M.S., Aerospace Engineering
**Sadeghi, Reza S.,** M.S., Mechanical Engineering
**Shetty, Ampar V.,** M.Sc., Civil Engineering
**Switlik, Jr., John A.,** B.S.E.E., Electrical Engineering
**Zhang, Naixin,** M.S., Civil Engineering

## HEALTH AND HUMAN SERVICES

**Anguera, Joaquín,** Ph.D., Health and Human Services, General
**Anton-Culver, Hoda,** Ph.D., Public Health
**Bassoff, Betty Z.,** D.S.W., Social Work
**Beach, Diane L.,** M.P.H., Public Health
**Blancett, Suzanne S.,** Ed.D., Nursing
**Burns, David B.,** M.N., Nursing
**Burns, Della E.,** M.N., Nursing
**Burnside, Irene M.,** Ph.D., Nursing
**Carroll, Karen C.,** B.S.N., Nursing
**Casuto, Doreen R.,** M.R.A., Nursing
**Chuang, Alexander S.,** Ph.D., Communicative Disorders
**Conway, Fred J.,** Ph.D., Nursing
**Davidson, Judy E.,** M.S., Nursing
**DiStefano, Georgi L.,** M.S.W., Social Work
**Drummond, Martha M.,** M.S.W., Social Work
**Dublin, Penny,** M.S.W., Social Work





**Egloff, Mary Elizabeth,** M.S.N., Nursing
**Fields, Willa L.,** D.N.Sc., Nursing
**Fix, Judith A.,** M.S.N., Nursing
**Gibson, Richard K.,** M.N., Nursing
**Gill, Jeanne A.,** Ph.D., Social Work
**Golbeck, Amanda L.,** Ph.D., Public Health
**Grimm, Peggy S.,** M.S.N., Nursing
**Gross, Daniel L.,** M.S., Nursing
**Gunn, Robert A.,** Ph.D., Public Health
**Harris, Stephen B.,** Ph.D., Public Health
**Healy, Sonya A.,** M.S., Nursing
**Jackson, Marguerite,** M.S., Nursing
**Josefowitz, Natasha,** Ph.D., Social Work
**Kaplan, Robert M.,** Ph.D., Public Health
**Kenney, Erin M.,** Ph.D., Public Health
**Kryter, Karl D.,** Ph.D., Communicative Disorders
**Levy, Linda K.,** M.S.N., Nursing
**Liu, William T.,** Ph.D., Public Health
**McNicholas, Lori Jean,** M.A., Public Health
**Micik, Sylvia H.,** M.D., Public Health
**Molgaard, Craig A.,** Ph.D., Health and Human Services, General
**Newhouse, Nancy L.,** M.S.W., Social Work
**Nickel, Verna M.,** M.S.N., Nursing
**Nield, Margaret,** Ph.D., Nursing
**Norby, Ronald B.,** M.N., Nursing
**Ostrom, Nancy K.,** M.D., Nursing
**Reese, Robert T.,** Ph.D., Public Health
**Reuer, Barbara L.,** Ph.D., Health and Human Services, General
**Riegel, Barbara J.,** D.N.Sc., Nursing
**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
**Stevens, Theresa R.,** M.S., Nursing
**Templin, Kathleen A.,** M.N., Nursing
**Tunget, Cynthia L.,** M.S., Public Health
**Van Hoy, Liesel M.,** M.S.W., Social Work
**Weisman, Irving,** Ed.D., Social Work
**Yeager, Kim K.,** M.D., Public Health
**Zuniga, Maria E.,** Ph.D., Health and Human Services, General

## PROFESSIONAL STUDIES AND FINE ARTS

**Adelman, Edward J.,** M.P.A., Aerospace Studies
**Agree, Jon,** B.A., Music
**Airman, William D.,** M.S., Aerospace Studies
**Allen, Christopher H.,** B.M.E., Music
**Allen, Joseph E.,** B.S., Physical Education
**Amoaku, Komla William,** Ph.D., Music
**Anderson, Mark C.,** M.A., Drama
**Anthony, Jeffrey,** D.O., Physical Education
**Bahrami, Farhad K.,** B.A., Music
**Baily, Stewart D.,** B.A., Naval Science
**Ballantyne, Peter,** B.A., Physical Education
**Benedetti, Fred M.,** M.M., Music
**Biggs, Martin "Gunnar",** Music
**Boyd, John S.,** M.S., Naval Science
**Brunson, Theodore R.,** D.M.A., Music
**Byrd, Ronald,** B.S., Physical Education
**Cannon, Derek L.,** B.A., Music
**Caparosa, Susan,** M.A., Physical Education
**Chase, Elizabeth Ann,** M.A., Music
**Clapp, John A.,** Ph.D., Physical Education
**Costagliola, Mario T.,** B.A., Military Science
**Das Gupta, Aloke K.,** M.A., Music
**Deaton, Larry T.,** B.S., Naval Science
**Dutchyshyn, John D.,** B.S., Military Science
**Emberger, Brad,** B.S., Physical Education
**Farris, Robert H.,** D.M.A., Drama
**Fisher, Irina,** M.A., Music
**Fisher, Thomas M.,** B.A., Physical Education
**Fritch, Kathleen S.,** A.B., Physical Education
**Goldman, Ronald J.,** M.D., Music
**Gottshall, Kim,** M.A., Physical Education
**Helzer, Richard A.,** M.F.A., Music
**Hipp, J. Michael,** B.A., Recreation, Parks and Tourism
**Hulbert, Kimberly A.,** B.A., Music
**Huth, Scott,** B.A., Physical Education
**Irza, Jude P.,** B.S., Naval Science
**Johnson, Russell,** B.A., Physical Education
**Johnson, Steve S.,** Physical Education
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# CAMPUS MAP INDEX — Alphabetical Listing

| LOCATION NO. | |
|---|---|
| 29 | Academic Advising (Univ. Advising Ctr.) |
| 58 | Adams Humanities |
| 30 | Administration |
| 29 | Admissions and Records |
| 903 | Affirmative Action/Education Programs (5170 College Ave./CO-170) |
| 214 | Alumni House–Basketball |
| 901 | American Language Institute (5814 Hardy Ave./HA-814) |
| 4 | Annex |
| 1, 56 | Art I/II (South/North) |
| 15 | Athletics |
| 83 | Athletics Offices |
| 84 | Athletics Training Facility |
| 15 | Aztec Athletic Foundation |
| 52 | Aztec Center |
| 45 | Aztec Shops (Campus Store) |
| 23 | Boiler Shop, Physical Plant |
| 37 | Business Administration and Mathematics |
| 85 | Campus Children's Center (Child Care) |
| 59 | Career Services |
| 29 | Cashiers Office |
| 93 | Chapultepec Residence Hall |
| 3 | Chemistry-Geology |
| 44 | Chill Plant |
| 93A | Cholula Hall |
| 22 | CIM Lab |
| 25 | Cogeneration Plant |
| 252 | College of Extended Studies Admin. (CES) |
| 496 | CES Classrooms |
| 237 | CES Registration Office |
| 37 | Computer Center |
| 28 | Communications Clinic |
| 59 | Counseling & Psychological Services |
| 32 | Courtyard Cafe |
| 29 | Disabled Student Services |
| 36 | Dramatic Arts |
| 32 | East Commons |
| 6 | Education |
| 59 | Educational Opportunity/Ethnic Affairs |
| 902 | El Nido (5164 College Ave./CO-164) |
| 19 | Engineering |
| 5 | Engineering Lab |
| 29 | Evaluations |
| | Extended Studies–see College of |
| 39 | Faculty Staff Centre |
| 7 | Family Studies and Consumer Sciences |
| 29 | Financial Aid |
| 75 | Football Coaches Offices |
| 75, 83, 84 | Football Operations Center |
| 907 | Foundation Facilities Storage |
| 905 | Foundation Offices (5178 College Ave./CO-178) |
| 30 | Graduate Division and Research |
| 26 | Hardy Tower |
| 112 | Hazardous Material Building |
| 2 | Hepner Hall |
| 40 | Housing and Residential Life Office |
| 9 | Industrial Technology |
| 283 | INFORMATION - PARKING |
| 52 | INFORMATION CENTER |
| 74 | International Student Center |
| 12 | KPBS-FM Studio |
| 902 | KPBS-TV Offices (5164 College Ave./CO-164) |
| 12 | KPBS-TV Studio |
| 900 | Leisure Connection |
| 54A | Library East |
| 10, 35 | Life Sciences (South/North) |
| 927 | Life Sciences Annex |
| 11 | Little Theatre |
| 54 | Love Library |
| 125 | Mail Room |
| 101 | Maintenance Garage |
| 46 | Maya Residence Hall |
| 52 | Montezuma Hall |
| 53 | Music |
| 18 | Nasatir Hall |
| 38 | North Education |
| 47 | Olmeca Residence Hall |
| 71 | Open Air Theater |
| 460 | Open Air Theater Dressing Facility |
| 55 | Parking Structure I |
| 79 | Parking Structure II |
| 99 | Parking Structure III |
| 82 | Parking Structure IV |
| 30 | Personnel |
| 16 | Peterson Gymnasium |
| 30 | Photo ID |
| 21 | Physical Education |
| 20 | Physical Education Annex |
| 24 | Physical Plant |
| 17 | Physical Sciences |
| 13 | Physics |
| 14 | Physics-Astronomy |
| PG 610, 620 | Playfields |
| 59 | Police/Public Safety |
| 30 | President's Office |
| 27 | Professional Studies and Fine Arts |
| 26 | Public Health, Graduate School of |
| 30 | Purchasing/Contracting |
| 73 | Racquetball Courts |
| 125 | Receiving and Material Management |
| 97 | Rehabilitation Center |
| | Residence Halls - see |
| | (West) Chapultepec, Tarastec, Toltec, Zapotec |
| | (East) Maya, Olmeca, Tenochca, Villa Alvarado, Zura |
| 21 | ROTC |
| 29 | Scholarship Office |
| 41 | Scripps 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 |
| 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 |

## GENERAL INFORMATION

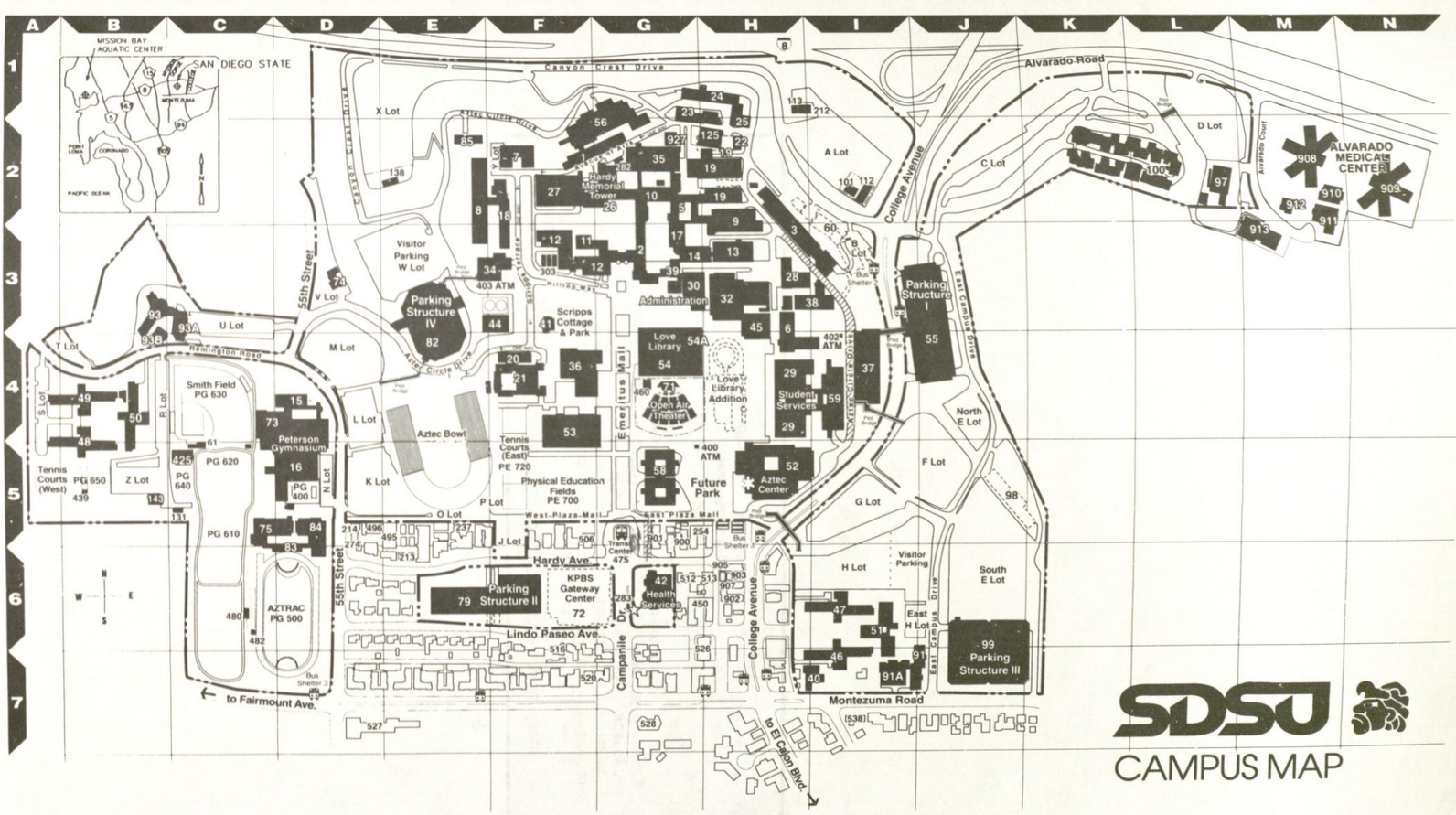
| | Build. No. | Grid Key |
|---|---|---|
| Information Center | 52 | H-5 |
| Information - Parking | 283 | G-6 |
| Transit Center | 475 | G-5 |
| Campus Boundary | | |
| Restricted Access Lanes | | |

### Parking Type

| | | | |
|---|---|---|---|
| Student | S | Handicapped | |
| Resident Student | R | Special Permit | |
| Faculty / Staff | | Motorcycles | |
| Visitor / Metered | M | S D Transit | |

## Parking Index

| | Grid Key | Parking Key |
|---|---|---|
| A Lot | I-2 | S |
| B Lot | I-3 | S |
| C Lot | J-2 | S |
| D Lot | L-2 | S |
| E Lot (South) | J-6 | S |
| E Lot (North) | J-4 | S |
| F Lot | J-5 | S |
| G Lot | I-5 | M |
| H Lot | I-6 | S M |
| J Lot | F-5 | |
| K Lot | D-5 | S R M |
| L Lot | D-4 | S |
| M Lot | D-4 | S |
| N Lot | D-5 | S R |
| O Lot | E-5 | |
| P Lot | E-5 | |
| R Lot | B-4 | R |
| S Lot | A-4 | R |
| T Lot | B-4 | R |
| U Lot | C-3 | R |
| V Lot | D-3 | S |
| W Lot | E-3 | S R M |
| X Lot | E-1 | S |
| Y Lot | F-2 | S |
| Z Lot | B-5 | R |
| Parking Structure I | J-3 | S M S |
| Parking Structure II | F-6 | S S |
| Parking Structure III | J-7 | S |
| Parking Structure IV | E-4 | S M S |




SDSU CAMPUS MAP

## CAMPUS MAP INDEX — Numerical Listing

| LOCATION NO. | |
|---|---|
| 1 | Art I (South) |
| 2 | Hepner Hall |
| 3 | Chemistry-Geology |
| 4 | Annex |
| 5 | Engineering Lab |
| 6 | Education |
| 7 | Family Studies and Consumer Sciences |
| 8 | Storm Hall |
| 9 | Industrial Technology |
| 10 | Life Sciences (South) |
| 11 | Little Theatre |
| 12 | Speech and Telecommunications |
| | KPBS-FM Studio |
| | KPBS-TV Studio |
| 13 | Physics |
| 14 | Physics-Astronomy |
| 15 | Athletics |
| | Aztec Athletic Foundation |
| 16 | Peterson Gymnasium |
| | Terry Pool (PG-400) |
| 17 | Physical Sciences |
| 18 | Nasatir Hall |
| 19 | Engineering |
| 20 | Physical Education Annex |
| 21 | Physical Education |
| | ROTC |
| 22 | CIM Lab |
| 23 | Boiler Shop, Physical Plant |
| 24 | Physical Plant |
| 25 | Cogeneration Plant |
| 26 | Hardy Tower |
| 27 | Professional Studies and Fine Arts |
| 28 | Communications Clinic |
| 29 | Student Services (West) |
| | Academic Advising (Univ. Advising Ctr.) |

| LOCATION NO. | |
|---|---|
| 29 | Admissions and Records |
| | Cashiers Office |
| | Disabled Student Services |
| | Evaluations |
| | Financial Aid |
| | Scholarship Office |
| | Student Resource Center |
| | Test Office |
| | Veterans Affairs |
| 30 | Administration |
| | Graduate Division and Research |
| | Personnel |
| | Photo ID |
| | President's Office |
| | Purchasing/Contracting |
| | Undergraduate Studies |
| 32 | East Commons |
| | Courtyard Cafe |
| 34 | West Commons |
| 35 | Life Sciences (North) |
| 36 | Dramatic Arts |
| 37 | Business Administration and Mathematics |
| | Computer Center |
| 38 | North Education |
| 39 | Faculty-Staff Centre |
| 40 | Housing and Residential Life Office |
| 41 | Scripps Cottage and Park |
| 42 | Student Health Services |
| 44 | Chill Plant |
| 45 | Aztec Shops (Campus Store) |
| 46 | Maya Residence Hall |
| 47 | Olmeca Residence Hall |
| 48 | Tarastec Residence Hall |
| 49 | Toltec Residence Hall |
| 50 | Zapotec Residence Hall |

| LOCATION NO. | |
|---|---|
| 51 | Zura Residence Hall |
| 52 | Aztec Center |
| | INFORMATION CENTER |
| | Montezuma Hall |
| 53 | Music |
| 54 | Love Library |
| 54A | Library East |
| 55 | Parking Structure I |
| 56 | Art II (North) |
| 58 | Adams Humanities |
| 59 | Student Services (East) |
| | Career Services |
| | Counseling & Psychological Services |
| | Educational Opportunity/Ethnic Affairs |
| | Police/Public Safety |
| | Student Outreach Services |
| 71 | Open Air Theater |
| 73 | Racquetball Courts |
| 74 | International Student Center |
| 75,83,84 | Football Operations Center |
| 75 | Football Coaches Offices |
| 75 | Weightroom (Athletics) |
| 79 | Parking Structure II |
| 82 | Parking Structure IV |
| 83 | Athletics Offices |
| 84 | Athletics Training Facility |
| 85 | Campus Children's Center (Child Care) |
| 91 | Tenochca Residence Hall |
| 91A | Tula Hall |
| 93 | Chapultepec Residence Hall |
| 93A | Cholula Hall |
| 97 | Rehabilitation Center |
| 99 | Parking Structure III |
| 100 | Villa Alvarado Residence Hall |

| LOCATION NO. | |
|---|---|
| 101 | Maintenance Garage |
| 112 | Hazardous Material Building |
| 113 | Storage Shed |
| 125 | Receiving and Material Management |
| | Mail Room |
| 212 | Storage Shed |
| 214 | Alumni House–Basketball |
| 237 | College of Extended Studies |
| | Registration Office |
| 252 | College of Extended Studies |
| | Administration (CES) |
| 283 | INFORMATION–PARKING |
| 460 | Open Air Theater Dressing Facility |
| 475 | Transit Center |
| 496 | College of Extended Studies |
| | Classrooms |
| 900 | Leisure Connection |
| 901 | American Language Institute |
| | (5814 Hardy Ave./HA-814) |
| 902 | El Nido (5164 College Ave./CO-164) |
| | KPBS-TV Offices |
| 903 | Affirmative Action/Education Programs |
| | (5170 College Ave./CO-170) |
| 905 | Foundation Offices |
| | (5178 College Ave./CO-178) |
| 907 | Foundation Facilities Storage |
| 927 | Life Sciences Annex |
| PE-700 | Softball Field |
| PE-720 | Tennis Courts (East) |
| PG-500 | Sportsman Field–AZTRAC |
| PG-610 | Playfield |
| PG-620 | Playfield |
| PG-630 | Smith Field and Baseball Clubhouse |
| PG-650 | Tennis Courts (West) |

### GENERAL INFORMATION

| | Build. No. | Grid Key |
|---|---|---|
| Information Center | 52 | H-5 |
| Information - Parking | 283 | G-6 |
| Transit Center | 475 | G-5 |

Campus Boundary

Restricted Access Lanes

### Parking Type

| | | | |
|---|---|---|---|
| Student | S | Handicapped | |
| Resident Student | R | Special Permit | |
| Faculty / Staff | | Motorcycles | |
| Visitor / Metered | | S D Transit | |

### Parking Index

| | Grid Key | Parking Key |
|---|---|---|
| A Lot | I-2 | S R |
| B Lot | I-3 | R |
| C Lot | J-2 | S R |
| D Lot | L-2 | S |
| E Lot (South) | J-6 | S |
| E Lot (North) | J-4 | S |
| F Lot | J-5 | R |
| G Lot | I-5 | |
| H Lot | I-6 | R |
| J Lot | F-5 | |
| K Lot | D-5 | R |
| L Lot | D-4 | S |
| M Lot | D-4 | S |
| N Lot | D-5 | R |
| O Lot | E-5 | |
| P Lot | E-5 | |
| R Lot | B-4 | R |
| S Lot | A-4 | R |
| T Lot | B-4 | R |
| U Lot | C-3 | R |
| V Lot | D-3 | S |
| W Lot | E-3 | R |
| X Lot | E-1 | S |
| Y Lot | F-2 | |
| Z Lot | B-5 | R |
| Parking Structure I | J-3 | R S |
| Parking Structure II | F-6 | R S |
| Parking Structure III | J-7 | S |
| Parking Structure IV | E-4 | R S |

SDSU

SAN DIEGO STATE UNIVERSITY
SAN DIEGO, CA 92182-0420
CATALOG . . . EDUCATIONAL MATERIAL

## MALCOLM A. LOVE LIBRARY

The Malcolm A. Love Library occupies an appropriate spot at the center of the campus, for the library is the center of any university. With more than 300,000 square feet, it is the largest of the campus buildings and more than twice the size of the "old library" it replaced. Built on the original site of Scripps Cottage, the library opened in March, 1971. It was named after Malcolm A. Love, who retired a few months later after 19 years as San Diego State College's third president.

It took the Bekins moving company several weeks to transfer more than 700,000 books and other volumes from the old to the new library. Since then, the general collection has grown to more than 1,000,000 volumes, along with more than 500,000 government documents, 3.4 million microforms and a variety of other sources of information. The library currently receives more than 6,000 serials and titles, excluding government publications. Search capabilities are available for more than 400 databases. Love Library is a depository for United States and California government publications, and selected publications from international organizations. Its Special Collections house books and manuscripts that date back to 1297.

The card catalogues that occupied a large part of the first floor in 1971 have been replaced with terminals for computer access to the growing collection. The library is a pioneer in developing electronic storage for reserved materials, which allows simultaneous access to multiple users. In reference areas, patrons have direct access to more than 15 CD-ROM and other electronic databases.

When built, Love Library was part of a new trend in library construction which mixed reading areas and the "stacks" in which books were stored. The building was also designed to have easily movable walls in order to allow maximum flexibility over the years as campus needs changed. The wisdom of this capability, which was included largely on the insistence of then Director of Libraries Louis A. Kenney, has been proven repeatedly over the ensuing years.

An addition which will increase the library's size by approximately one third will bring a new circular entrance to the library and rearrangement of several library functions. It will also free up space in the original building for book stacks and reader stations. The addition will also accelerate the library's move into electronic storage, transmission, and retrieval of data and information.



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