# 2006-2007 

## General Catalog and Announcement of Courses



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San Diego State University maintains and promotes a policy of nondiscrimination and nonharassment on the basis of race, religion, national origin, sexual orientation, gender, marital status, age, disability or veteran status, including veterans of the Vietnam era.
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. The Office of Diversity and Equity oversees that commitment to equal opportunity.
San Diego State University places high priority on that objective and expects all members of the university to support this policy fully.
Refer to San Diego State University Senate personnel guidelines, Part III-A-3, pertaining to nondiscrimination as well as California State University Executive Orders 340, 345, and 675.

## Annual Calendar

| CALENDAR 2006 |  |  |
| :---: | :---: | :---: |
| JANUARY | FEBRUARY | MARCH |
| S m T W T | S m T W T F S | S m T W |
| 1 2 3 4 5 6 7 <br> 8 9 10 11 12 13 14 <br> 15 16 17 18 19 20 21 <br> 22 23 24 25 26 27 28 <br> 29 30 31     | $\|$ 1 2 3 4   <br> 5 6 7 8 9 10 11 <br> 12 13 14 15 16 17 18 <br> 19 20 21 22 23 24 25 <br> 26 27 28     |    1 2 3 <br> 5 4     <br> 5 6 7 8 9 10 <br> 1211      <br> 131415 15 16 17 18  <br> 1920 21 22 23 2425  <br> 26 27 28 29 30 31 |
| APRIL | MAY | JUNE |
| 2 3 4 5 6 7 8  <br> 9 10 11 12 13 14 15  <br> 16 17 18 19 20 21 22  <br> 23 24 25 26 27 28 29  <br> 30        | $\|$1 2 3 4 5 6  <br> 7 8 9 10 11 12 13 <br> 14 15 16 17 18 19 20 <br> 21 22 23 24 25 26 27 <br> 28 29 30 31    |  |
| JULY | AUGUST | SEPTEMBER |
|       1  <br> 2 3 4 5 6 7 8  <br> 9 10 11 12 13 14 15  <br> 16 17 18 19 20 21 22  <br> 232425 26 27 28 29    <br> 30 31       |   1 2 3 4 5 <br> 6 7 8 9 10 11 12 <br> 13 14 15 16 17 18 19 <br> 20 21 22 23 24 25 26 <br> 27 28 29 30 31   |  |
| OCTOBER | NOVEMBER | DECEMBER |
| 1 2 3 4 5 6 7  <br> 8 9 10 11 12 13 14  <br> 15 16 17 18 19 20 21  <br> 22 23 24 25 26 27 28  <br> 29 30 31      |    1 2 3 4 <br> 5 6 7 8 9 10 11 <br> 12 13 14 15 16 17 18 <br> 19 20 21 22 23 24 25 <br> 26 27 28 29 30   |      1 2 <br> 3 4 5 6 7 8 9 <br> 10 11 12 13 14 15 16 <br> 17 18 19 20 21 22 23 <br> 2425 26 27 28 29 30  <br> 31       |


| CALENDAR 2007 |  |  |
| :---: | :---: | :---: |
| JANUARY | FEBRUARY | MARCH |
| S M T W T F | S M T W T F | S M T W T F |
|  1 2 3 4 5 6 <br> 7 8 9 10 11 12 13 <br> 14 15 16 17 18 19 20 <br> 21 22 23 24 25 26 27 <br> 28 29 30 31    |   1 2 3   <br> 4 5 6 7 8 9 10 <br> 11 12 13 14 15 16 17 <br> 18 19 20 21 22 23 24 <br> 25 26 27 28    |    1 2 3  <br> 4 5 6 7 8 9 10 <br> 11 12 13 14 15 16 17 <br> 18 19 20 21 22 23 24 <br> 25 26 27 28 29 30 31 |
| APRIL | MAY | JUNE |
| 1 2 3 4 5 6 7 <br> 8 9 10 11 12 13 14 <br> 15 16 17 18 19 20 21 <br> 22 23 24 25 26 27 28 <br> 29 30      |  1 2 3 4 5  <br> 6 7 8 9 10 11 12 <br> 131415 16 17 18 19   <br> 20 21 22 23 2425 26  <br> 27 28 29 30 31   |     1 2  <br> 3 4 5 6 7 8 9 <br> 10 11 12 13 14 15 16 <br> 17 18 19 20 21 22 23 <br> 24 25 26 27 28 29 30 |
| JULY | AUGUST | SEPTEMBER |
| 1 2 3 4 5 6 7  <br> 8 9 10 11 12 13 14  <br> 15 16 17 18 19 20 21  <br> 22 23 24 25 26 27 28  <br> 29 30 31      |    1 2 3 4 <br> 5 6 7 8 9 10 11 <br> 121314 15 16 17 18   <br> 19 20 21 22 23 24 25 <br> 26 27 28 29 30 31  | 2 3 4 5 6 7 8  <br> 9 10 11 12 13 14 15  <br> 16 17 18 19 20 21 22  <br> 23 2425 26 27 28 29   <br> 30        |
| OCTOBER | NOVEMBER | DECEMBER |
| 1 2 3 4 5 6  <br> 7 8 9 10 11 12 13 <br> 14 15 16 17 18 19 20 <br> 21 22 23 24 25 26 27 <br> 28 29 30 31    |     2 3  <br> 4 5 6 7 8 9 10 <br> 11 12 13 14 15 16 17 <br> 18 19 20 21 22 23 24 <br> 25 26 27 28 29 30  |        <br> 2 3 4 5 6 7 8 <br> 9 10 11 12 13 14 15 <br> 16 17 18 19 20 21 22 <br> 23 24 25 26 27 28 29 <br> 30 31      |

## Academic Calendar

## SUMMER TERM 2006

May 23 First day of summer term.
May 24 First day of classes.
May 24-July 6 Session S1.
May 24-August 18 Session T1.
May 29 Holiday-Memorial Day. Faculty/staff holiday. Campus closed.
June 2 Session S1 schedule adjustment. (6:00 p.m. deadline.)
June 12 Session T1 schedule adjustment. (6:00 p.m. deadline.)
July 1 Applications for bachelor's degree for May and August 2007 graduation accepted.
July 4 Holiday - Independence Day.
Faculty/staff holiday. Campus closed.
July 10-August 18 Session S2.
July 18 Session S2 schedule adjustment. (6:00 p.m. deadline.)
July 19 Census.
August 18 Last day of classes. (Final examinations are the last day of classes for each summer session.)
August 21 Grades due from instructors.
(11:00 p.m. deadline.)
August 21 Last day of summer term.

## FALL SEMESTER 2006

August 22 First day of fall semester.
August 23 New Graduate Student Orientation.
August 24 Convocation.
August 24-25 Faculty/Staff Advising.
August 25 Last day to officially withdraw for fall semester 2006 and receive a full refund.
August 26 New Student and Family Convocation.
August 28 First day of classes.
Aug. 28-Sept. 18 Schedule adjustment and late registration.
September 4 Holiday-Labor Day.
Faculty/staff holiday. Campus closed.
September 18 Last day for payment of fees for late registration.
September 18 Last day to add classes, drop classes, or change grading basis. No schedule adjustments allowed after 6:00 p.m. on this date.
September 18 Last day to officially withdraw from the university for fall semester 2006.
September 18 Last day to file application for bachelor's degree for December 2006 graduation.
September 18 Last day to file petition for concurrent master's degree credit for fall semester 2006.
September 18 Last day to apply for December 2006 graduation with an advanced degree, Division of Graduate Affairs.
September 25 Census.
October 1 Applications for admission or readmission to San Diego State University for the fall semester 2007 accepted. Applications are NOT accepted after November 30 (postmarked). Graduate applicants should consult the Graduate Bulletin for closing dates.
October 20-21 Family Weekend.
November 1 Last day to officially withdraw from all classes for fall 2006 and receive a prorated refund (withdrawal after September 18 requires special approval and a penalty fee is assessed).
November 10 Holiday - Veteran's Day
Faculty/staff holiday. Campus closed.

November 23-25 Holiday-Thanksgiving recess.
Faculty/staff holiday. Campus closed.
December 8 Last day of classes before final examinations.
December 9-16 Final examinations.
December 23-28 Holiday - Winter recess. Faculty/staff holiday. Campus closed.
December 29 Campus open. No classes.
December 29 Grades due from instructors. (11:00 p.m. deadline.)
December 29 Last day to apply for a leave of absence for fall semester 2006.
December 29 Last day of fall semester.
January 1 Holiday- New Year's Day.
Faculty/staff holiday. Campus closed.

## SPRING SEMESTER 2007

January 15 Holiday-Martin Luther King, Jr. Day. Faculty/staff holiday. Campus closed.
January 16 First day of spring semester.
January 16-17 Faculty/Staff Advising.
January 17 Last day to officially withdraw for spring semester 2007 and receive a full refund.
January 18 First day of classes.
Jan. 18-Feb. 7 Schedule adjustment and late registration.
February 7 Last day for payment of fees for late registration.
February 7 Last day to add classes, drop classes, or change grading basis. No schedule adjustments allowed after 6:00 p.m. on this date.
February 7 Last day to officially withdraw from the university for spring semester 2007.
February 7 Last day to file application for bachelor's degree for May and August 2007 graduation.
February 7 Applications for bachelor's degree for December 2007 graduation accepted.
February 7 Last day to file petition for concurrent master's degree credit for spring semester 2007.
February 7 Last day to apply for May 2007 graduation with an advanced degree, Division of Graduate Affairs.
February 14 Census.
March 24 Last day to officially withdraw from all classes for spring 2007 and receive a prorated refund (withdrawal after February 7 requires special approval and a penalty fee is assessed).
March 24 Last day of classes before spring recess.
March 26-31 Spring recess.
March 30 Holiday-Cesar Chavez Day observed. Faculty/staff holiday. Campus closed.
March 31 Cesar Chavez Day.
April 2 Classes resume.
May 8 Last day of classes before final examinations.
May9-16 Final examinations.
May18-20 Commencement days.
May 22 Grades due from instructors. (11:00 p.m. deadline.)
May 22 Last day to apply for a leave of absence for spring semester 2007.
May 22 Last day of spring semester.
May 28 Holiday-Memorial Day. Faculty/staff holiday. Campus closed.

## SUMMER TERM 2007

NOTE: Summer session dates to be determined. Refer to SDSU Summer Session Class Schedule.
July 1 Applications for bachelor's degree for May and August 2008 graduation accepted.
July 4 Holiday - Independence Day. Faculty/staff holiday. Campus closed.

## Administration and Organization

## Principal Officers of Administration

President of the University

Stephen L. Weber Provost Nancy A. Marlin
Vice President for Business and Financial Affairs
Sally F. Roush
Vice President for Student Affairs $\qquad$ James R. Kitchen
Vice President for University
Advancement $\qquad$ Theresa M. Mendoza

## Administration

## Office of the President

Assistant to the President for Executive Affairs. $\qquad$ Lena T. Rodriguez
Director of Diversity and Equity Cheryl Fisher

## Office of the Provost

Associate Vice President for Academic Affairs .......Ethan A. Singer Executive Director of Enrollment Services ........ Sandra A. Cook Associate Executive Director of Enrollment Services $\qquad$ Rita Gajoli Director of Admissions. $\qquad$ Beverly Arata Director of Evaluations . $\qquad$ Cassie Steadman Registrar

Rayanne Williams
Assistant Executive Director of
Enrollment Services and Director
of Academic Advising
..Selma Reed
Director of Analytical Studies and Institutional Research.........................................Sally Farris Director of Instructional Technology Services ................................. James P. Frazee
Associate Vice President for
Faculty Affairs

## or

Assistant Vice President for Academic Services .........Jane K. Smith Assistant Vice President for

International Programs ................................... Alan R. Sweedler
Chair of the Senate
.Fredrick W. Hornbeck
Office of the Vice President for Business and Financial Affairs
Associate Vice President for
Business Enterprises..
Associate Vice President for
Financial Management...
Associate Vice President for
Human Resources and Risk Management..................Sue Blair
Assistant Vice President ....................................... Linda A. Stewart
Director of Facilities Planning and Management. $\qquad$ W. Anthony Fulton

Director of Business Information Management $\qquad$ Ellene J. Gibbs
Director of Physical Plant. $\qquad$ Scott Burns
Director of Public Safety John J. Carpenter
Director of Environmental Health and Safety .................... Sue Blair

## Office of the Vice President for Student Affairs

Associate Vice President for Student Services and Budget Administration. $\qquad$ .. William D. Boyd
Assistant Vice President for Student Affairs Administration $\qquad$ Eric Rivera
Dean of Students . Darlene V. Willis

Director of Budget and Human Resource Administration
.Linda Lewiston
Special Assistant to the Vice President for Student Affairs .. Rosa Moreno
Director of Career Services
Director of Communication Services .................... Sharon A. Penny
Director of Counseling and Psychological Services
....Sandy Jorgensen-Funk
Director of Disabled Student Services ......................... Mary Shojai
Director of Educational Opportunity Programs and Ethnic Affairs .......................Reginald S. Blaylock (Interim)
Director of Financial Aid and Scholarships ................ Chrys Dutton
Director of Information Systems Management ............ Kevin Carter
Director of International Student Center ...................... Ron Moffatt
Director of New Student and
Parent Programs .................................... Janet Castro (Interim)
Director of Residential Education.........................Cynthia M. Avery
Director of Student Health Services .
Director of Student Rights and Responsibilities
Director of Student Testing, Assessment and Research $\qquad$ Reynaldo Monzon
Fraternity and Sorority Life, Coordinator .................. Douglas Case Ombudsman, Program Coordinator
Office of the Vice President for University Advancement
Assistant Vice President for Marketing and Communications. $\qquad$ Jack Beresford
Associate Vice President for Development. $\qquad$ ..........................
Executive Director of Alumni Association..............James S. Herrick
Chief Financial and Information Officer.................... Allan R. Bailey
Director of Intercollegiate Athletics .......................... Jeff Schemmel
President of Aztec Athletic Foundation ................. Kevin Faulconer

## Colleges, Schools, Departments, and Programs

COLLEGE OF ARTS AND LETTERS ..................... Paul Wong, Dean
Associate Dean......................................................Edward V. Heck
Associate Dean ...................................................... Linda D. Holler
Assistant Dean for Student Affairs....................... Leslie S. Johnson
Director of Development ......................................... Nancy Lemkie
Director of Resource Management ........................... Lesley Bryant
Departments ........................................................... Chair or Director
Africana Studies .................................................. Shirley N. Weber
American Indian Studies ........................................ Margaret Field
Anthropology ....................................................... Seth W. Mallios
Asia Pacific Studies........................................ Paul Wong (Interim)
Chicana and Chicano Studies .......... Ricardo Griswold del Castillo
Classics and Humanities .......................................E. N. Genovese
Economics ............................................................Mark A. Thayer
English and Comparative Literature ....................... Sherry B. Little
European Studies..................................................Edith J. Benkov
Geography ............................................................ John F. O'Leary
History ..............................................................Joanne M. Ferraro
Linguistics and Oriental Languages ..................... Jeffrey P. Kaplan



COLLEGE OF PROFESSIONAL STUDIES
AND FINE ARTS ........................................... Joyce M. Gattas, Dean
Associate Dean ..................................................Donald R. Martin
Associate Dean ............................................ Kathryn J. LaMaster
Assistant Dean for Student Affairs .................... Randi E. McKenzie
Director of Resource Management......................... Sue Kasuyama
Director of Special Projects ................................ Michele Schlecht
Director of Student Services and Communications Manager ................................... Sonia Wright
Departments and Schools ....................................... Chair or Director
Aerospace Studies ............................................. Michael A. Fleck
Art, Design, and Art History .......................... Ida K. Rigby (Interim)
Child and Family Development ....................... Thomas W. Roberts
Communication .................................... Diane L. Borden (Interim)
Exercise and Nutritional Sciences ............................Janet C. Harris
Military Science .....................................................Kent R. Rideout
Music and Dance ............................................ Martin J. Chambers
Naval Science ...................................................... Craig W. Turley
Public Administration and Urban Studies ................Stuart D. Henry
Recreation, Parks and Tourism ............................. Gene G. Lamke
Theatre, Television, and Film ...................................... W. Nick Reid
Programs
Hospitality and Tourism Management ........................ Carl Winston
International Security and Conflict
Resolution ....................................................... Dipak K. Gupta
Urban Studies .......................................................Roger W. Caves

UNDERGRADUATE STUDIES Geoffrey W. Chase, Dean
Associate Dean
Assistant Dean Bonnie M. Anderson University Scholarships Patti Scott
Programs
Center for Teaching and Learning ..... Brock S. Allen Faculty/Student Mentoring Program José Preciado
Compact Scholars Program Janet Osterbye
Interdisciplinary Studies in Three Departments Bonnie M. Anderson
People, Information, Communication, and Technology Program .Catherine J. Atkins
University Honors Program
EXTENDED STUDIES William E. Byxbee, Dean
Associate Dean for Administration Joseph B. Shapiro
Executive Director of Marketing and Public Relations. Dale Bonifield
Executive Director of Professional Development Tamara McLeod
Executive Director of American Language Institute MarlaFedere
Director of Certificates Wendy Evers
Director of Corporate Learning and
Director of Credit Community Education ........ Francesca Ringland Director of Non-Credit Community Education and Retired Adults. Leslie Koch
Director, Learning Solutions Judy Blum
Auxiliary Organizations
The Campanile Foundation
President ..... Stephen L. Weber
Chief Executive Officer Theresa M. Mendoza
Chief Financial Officer/Treasurer ..... Allan R. Bailey
San Diego State University Research Foundation President Stephen L. Weber
Vice President ..... Thomas R. Scott
Chief Executive Officer
Aztec Shops, Ltd.
Chief Executive Officer ..... Larry Marmon
The Associated Students of San Diego State University
President Chris Manigault
Executive Director .............................................. Dan Cornthwaite

## Academic Advising

## Questions related to requirements in your major should be directed to your major adviser. Visit http://www.sdsu.edu/majoradvisers.

## Mission and Purpose

The Academic Advising Center works with the university community to encourage and promote student learning in a welcoming and supportive environment. We clarify university policies, procedures and requirements to ensure student retention and timely graduation. The center staff facilitates academic responsibility and competence by educating students to use resources effectively.

## Why Academic Advising Is Important

Completing the requirements for your degree in a timely manner requires planning. Academic advisers can help you develop your academic plan. Don't wait until you have a problem to see an adviser. Let the adviser help you prevent any problems! Planning saves time, money, and aggravation. The sooner you make the decision about what your major will be, the better you can plan your academic program. There are many program choices available at SDSU. An adviser can assist you with this decision process. Choosing the major that is right for you and compatible with your life goals will enhance your academic success. Requirements, policies, and procedures may change from year to year. Advisers can clarify which changes may affect you and which will not.

## Advising Is Available to Help Students

- Understand graduation requirements
- Develop an academic plan
- Evaluate transfer credit
- Choose or change a major
- Clear mathematics and writing competencies
- Remove probationary status to avoid disqualification
- File for graduation
- Prepare to enter a professional school (medical, dental, legal, etc.)
- Plan your next semester's schedule


## Major Academic Plans (MAPs)

The MAPs Web site located at http://www.sdsu.edu/mymap was created to help first-time freshmen navigate the course requirements for their majors. The Major Academic Plans (MAPs) created for each major are not meant to encompass every major-specific requirement or a required sequencing of courses. Refer to this catalog for a complete description of requirements, including: course prerequisites, minimum grade requirements, unit limitations, and General Education approved courses and distribution requirements.

The MAPs will help you identify which General Education course will also fulfill a major preparation course requirement. They will also suggest sequencing to ensure that you complete prerequisites for an upper-division course prior to taking the higher-level course.

Questions about graduation requirements and General Education should be directed to the Academic Advising Center at 619-594-6668. You may also submit a general question through Academic Advice in the SDSU WebPortal. The Academic Advising Center is located in Student Services, Room 1551 (north of Aztec Center).
Visit http://www.sdsu.edu/advising.

## What Are the Students' Responsibilities Regarding Advising?

Purchase a General Catalog. Know your catalog year (or years) for your General Education requirements and for your major requirements and be sure you have a copy of this catalog. Provided you maintain your enrollment at SDSU, this catalog or these catalogs establish the requirements you must complete for graduation. Details regarding catalog rights are listed under Graduation Requirements in this section of the catalog

See your adviser regularly. Don't wait until you encounter a problem before seeing an adviser. Check your degree progress regularly. If you plan to enter a professional school (medicine, dentistry, veterinary medicine), see your preprofessional adviser during your first year at SDSU. Visit http://www.sdsu.edu/preprof.

Keep an advising file. Keep a personal copy of transcripts (official or unofficial) from each college or university you have attended in a file and bring it to your advising session. You may print an SDSU degree evaluation by accessing http://www.sdsu.edu/portal. SDSU does not release copies of other schools' records. Evaluations, test scores, and other important academic information should also be kept in your personal advising file.

Plan your advising sessions during non-peak times. Advisers and advising centers are busiest during registration periods and the first weeks of classes. If you can avoid these busy advising times with a little planning, you will save yourself time and aggravation. Faculty advisers (major advisers) are not always available during the summer months or between semesters.

File for graduation. Graduation is not automatic, you must file a graduation application during the stated graduation application periods. Filing early will assure a final graduation evaluation before your last semester of enrollment. It is recommended you file for graduation once you have passed 90 units.

## Where To Go For Academic Advising

For general undergraduate advising regarding graduation requirements, General Education, competency requirements, probation and disqualification, and major selection, go to the Academic Advising Center, Student Services, Room 1551, 619-594-6668.

For advising in your undergraduate or graduate major, contact the adviser or advising center assigned to your major and class level. A more detailed listing follows. You may also visit http://www.sdsu.edu/majoradvisers.

For advising for students in the Educational Opportunity Program, go to the Office of Educational Opportunity Programs/Ethnic Affairs, Student Services, Room 2209, 619-594-6298.

For general requirements for the master's or doctoral degrees (except for the major), contact the Division of Graduate Affairs, Manchester Hall, Room 3320, 619-594-5213.

For teaching credential advising, contact the adviser assigned to your specific area. A more detailed listing follows. Teachers holding preliminary California credentials issued on the basis of programs completed at other universities or in other states, may secure program advising from the Credentials Processing Center, Business Administration, Room 250, 619-594-5964.

For specialized advising such as preprofessional advising (premedical, prelaw, etc.), contact the adviser assigned to your preprofessional area. A more detailed listing follows and can also be found at http://www.sdsu.edu/preprof.

New Student Orientation is conducted by the Office of New Student and Parent Programs, 619-594-1509, for new students (freshmen and transfers) and provides important pre-registration group advising. Visit http://www.sdsu.edu/orientation.

The following chart lists more specific information regarding the location and telephone numbers of SDSU academic advisers. A more complete directory of academic advisers at SDSU is available on the Web site at http://www.sdsu.edu/advising.

## Advising Centers

Academic Advising Center 619-594-6668
Student Services, Room 1551 FAX 619-594-1553
Academic advice is available through the SDSU WebPortal at http://www.sdsu.edu/portal.

Monday through Thursday, 9:00 a.m. - 6:00 p.m.; Friday, 9:00 a.m. - 4:00 p.m.
Graduation Requirements General Education
Undeclared Students
University Academic
Policies and Regulations
Unofficial Evaluations
Probation/Disqualification
Advising
Educational Opportunity/Ethnic Affairs
Student Services, Room 2209 $\qquad$ 619-594-6298
Monday through Friday, 8:00 a.m. - 4:00 p.m.

## PREPROFESSIONAL ADVISING

It is recommended that students contact their preprofessional adviser in their first semester at SDSU. Advisement for students planning to attend professional schools is available for the following programs:

## Allied Health

Geology/Mathematics/Computer Science, Room 323 ..... 619-594-6638
Predental
Geology/Mathematics/Computer Science, Room 323 ..... 619-594-6638
Preeducation
University Advising Center
Student Services, Room 1641 ........................................ 619-594-6668
Prelaw*
Nasatir Hall, Room 130 .................................................. 619-594-5028
Premedical
Geology/Mathematics/Computer Science, Room 323 ..... 619-594-6638
Prenursing
Hardy Tower, Room 54 ................................................... 619-594-6527
Preoccupational Therapy
Exercise and Nutritional Sciences, Room 331 .............. 619-594-5161
Preoptometry
Geology/Mathematics/Computer Science, Room 323 ..... 619-594-6638
Prepharmacy
Geology/Mathematics/Computer Science, Room 323 ..... 619-594-6638
Prephysical Therapy, Exercise and
Nutritional Sciences, Room 331 .................................... 619-594-5161
Prephysician Assistant
Geology/Mathematics/Computer Science, Room 323 ..... 619-594-6638
Prepodiatry
Geology/Mathematics/Computer Science, Room 323 ..... 619-594-6638
Presocial Work
Hepner Hall, Room 148 ................................................. 619-594-5803
Preveterinary Medicine
Geology/Mathematics/Computer Science, Room 323 ..... 619-594-6638

## COLLEGE OF ARTS AND LETTERS

Assistant Dean ............................................................ 619-594-6270
Arts and Letters, Room 202
Africana Studies
Arts and Letters, Room 373........................................... 619-594-6531
American Indian Studies (Minor)
Arts and Letters, Room 331
619-594-6991
Anthropology
Arts and Letters, Room 448.....................................................619-594-5527
Asia Pacific Studies
Arts and Letters, Room 473............................................ 619-594-0931
Chicana and Chicano Studies
Arts and Letters, Room 348.............................................619-594-6452
Classics and Humanities
Arts and Letters, Room 662.............................................619-594-5186
Economics
Nasatir Hall, Room 304 ................................................... 619-594-1675
English and Comparative Literature
Arts and Letters, Room 226
619-594-5307
European Studies (Minor)
Business Administration, Room 304 .............................. 619-594-5111
French and Italian (Minor)
Business Administration, Room 304 .............................. 619-594-6491
Geography
Storm Hall, Room 323 ..................................................... 619-594-5437
German and Russian
Business Administration, Room 304 ............................. 619-594-6313

## Hebrew

Business Administration, Room 327 .............................. 619-594-5268
History
Arts and Letters, Room 588............................................ 619-594-5262
International Business
Arts and Letters, Room 208........................................... 619-594-4505
International Security and Conflict Resolution
Nasatir Hall, Room 116
619-594-4099
Japanese
Business Administration, Room 327 ............................... 619-594-5268
Jewish Studies (Minor)
Arts and Letters, Room 588............................................. 619-594-5338
Latin American Studies
Arts and Letters, Room 377............................................ 619-594-1103
Linguistics and Oriental Languages
Business Administration, Room 327 .............................. 619-594-5268
Philosophy
Arts and Letters, Room 446 ........................................... 619-594-5263
Political Science
Nasatir Hall, Room 127 ....................................................619-594-6244
Religious Studies
Arts and Letters, Room 662............................................. 619-594-5185
Russian and Central European Studies
Business Administration, Room 304
619-594-5111
Social Science
Arts and Letters, Room 588............................................ 619-594-6344
Sociology
Nasatir Hall, Room 203 .................................................. 619-594-5449
Spanish and Portuguese
Arts and Letters, Room 134............................................ 619-594-6588
Urban Studies
Professional Studies and Fine Arts, Room 105 .............. 619-594-6224
Women's Studies
Arts and Letters, Room 346
619-594-6524

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## COLLEGE OF BUSINESS ADMINISTRATION

Assistant Dean
Business Administration, Room 448
619-594-5828
Undergraduate Business Advising Center
Business Administration, Room 448 $\qquad$ 619-594-5828
Undergraduate Web site: http://rohan.sdsu.edu/~ugbus/

Accountancy
Finance
Financial Services
Hospitality and Tourism
Management (See Professional
Studies and Fine Arts)
Information Systems
Graduate Business Advising Office $\qquad$ 619-594-5217
Student Services, Room 3428
MBA (various specializations)
MS in Accountancy
MS in Business Administration (various concentrations)
MBA/MA in Latin American Studies

## COLLEGE OF EDUCATION

## (Degrees, Credentials, and Certificate Programs)

Assistant Dean for Student Affairs
Business Administration, Room 346 $\qquad$ 619-594-1426

Office of Advising and Recruitment
Business Administration, Room 259. $\qquad$ 619-594-6320

Adaptive Physical Education
Exercise and Nutritional Sciences, Room 318
619-594-4703
Administrative, Rehabilitation and Postsecondary Education
3590 Camino del Rio North
619-594-6115
Community College Teaching Certificate
Rehabilitation Administration Certificate
Workforce Education and Lifelong Learning Certificate
Counseling and School Psychology
North Education, Room 179
619-594-6109
Pupil Personnel Services
School Counseling
School Psychology
Educational Leadership
North Education, Room 166 619-594-4063
Administrative Services
Educational Technology
North Education, Room 280 619-594-6718
Distance Education Certificate
Instructional Software Design Certificate
Master's Programs
Business Administration, Room 246 $\qquad$ 619-594-6544

## Doctoral Programs

SDSU/CGU: Business Administration, Room 246 .... 619-594-1120
SDSU/USD: Business Administration, Room 246 .... 619-594-0909
SDSU/UCSD/CSUSM: North Education, Room 166.. 619-594-4063
Nursing (Health Services-School Nurse)
Hardy Tower, Room 58 $\qquad$ 619-594-5495/594-6384
Policy Studies in Language and Cross-Cultural Education
Business Administration, Room 248 $\qquad$ 619-594-5155
Multiple and Single Subject B/CLAD Emphasis
CLAD or BCLAD Credential in Mexico BCLAD Certificate
Language Development Specialist Certificate

Social Work
Hepner Hall, Room 119 ................................................. 619-594-5197
Pupil Personnel Services
Child Welfare and Attendance
School Social Work
Special Education
North Education, Room 70
619-594-6665
Specialist Credentials
Early Childhood Special Education
Mild/Moderate DIsabilities
Moderate/Severe Disabilities
Physical and Health Impairments
Certificate Programs
Developing Gifted Potential
Early Childhood Special Education
Supported Employment and Transition Specialist
Speech, Language, and Hearing Sciences
Speech, Language, and Hearing, Room 121 619-594-6774
Clinical-Rehabilitative Services
Teacher Education
Business Administration, Room 255 619-594-6131
Multiple Subject and Single Subject
Reading/Language Arts Specialist

## COLLEGE OF ENGINEERING

Assistant Dean
Engineering, Room 200C
619-594-7007
Aerospace Engineering and Engineering Mechanics
Engineering, Room 308
619-594-6074
Civil and Environmental Engineering
Engineering, Room 424
619-594-6071
Electrical and Computer Engineering
Engineering, Room 426D
619-594-5718
Mechanical Engineering
Engineering, Room 323L
619-594-6067

## COLLEGE OF HEALTH AND HUMAN SERVICES

Assistant Dean
Education, Room 154 ....................................................... 619-594-6151
Community Health Education
Hardy Tower, Room 119 619-594-1254
Gerontology
Hepner Hall, Room 203 ................................................. 619-594-6989
Nursing
Hardy Tower, Room 58 ..................................................... 619-594-2540
Public Health
Hepner Hall, Room 129 .................................................. 619-594-5528
Social Work
Hepner Hall, Room 119 ................................................. 619-594-6865
Speech, Language, and Hearing Sciences
Speech, Language, and Hearing, Room 118 619-594-6774

## COLLEGE OF PROFESSIONAL STUDIES AND FINE ARTS

Assistant Dean
Professional Studies and Fine Arts, Room 212 619-594-6928
Aerospace Studies (Minor)
Exercise and Nutritional Sciences, Room 385 .............. 619-594-5545
Art, Design, and Art History
Art, Room 505 $\qquad$ 619-594-6511
Child and Family Development
Professional Studies and Fine Arts, Room 413
619-594-5380
Communication Advising Center (Communication and Journalism)
Professional Studies and Fine Arts, Room 361
619-594-5450
Exercise and Nutritional Sciences (Foods and Nutrition, Kinesiology)Exercise and Nutritional Sciences, Room 331619-594-5161
Hospitality and Tourism Management
Professional Studies and Fine Arts, Room 436 ..... 619-594-4964
International Security and Conflict Resolution Nasatir Hall, Room 116 ..... 619-594-4099
Military Science (Minor)
Exercise and Nutritional Sciences, Room 451 ..... 619-594-4943
Music and Dance
Music, Room 111 ..... 619-594-6031
Naval Science (Minor)Communication, Room 130619-594-3730
Public Administration and Urban Studies (Criminal JusticeAdministration, Public Administration)Professional Studies and Fine Arts, Room 107 .............. 619-594-6224
Recreation, Parks and Tourism
Professional Studies and Fine Arts, Room 431 ..... 619-594-5110
Theatre, Television, and Film
Dramatic Arts, Room 204619-594-6363
Urban Studies
Professional Studies and Fine Arts, Room 121 ..... 619-594-6472
COLLEGE OF SCIENCES
Assistant Dean
Geology/Mathematics/Computer Science, Room 321... ..... 619-594-5350
Astronomy
Physics/Astronomy, Room 210A ..... 619-594-6182
Biology
Life Sciences, Room 135 ..... 619-594-6442
Bioengineering
Cellular and Molecular Ecology Medical Technology and Public Health MicrobiologyEvolution and SystematicsZoologyMarine Biology
Chemistry and Biochemistry (Chemical Physics)
Geology/Mathematics/Computer Science, Room 209 ..... 619-594-5595
Computer Science
Geology/Mathematics/Computer Science, Room 413 ..... 619-594-6191
Geological Sciences
Geology/Mathematics/Computer Science, Room 237 ...... 619-594-5586

| General Geology | Hydrogeology |
| :--- | :--- |
| Engineering Geology | Marine Geology |
| Geochemistry | Paleontology |
| Geophysics | Oceanography (Minor) |

International Security and Conflict Resolution
Mathematics and Statistics619-594-4099
Geology/Mathematics/Computer Science, Room 413 ..... 619-594-6191
Oceanography (Minor)
Geology/Mathematics/Computer Science, Room 237 ... ..... 619-594-5707
Physics (Chemical Physics)Physics, Room 131619-594-6240
Preprofessional Health Advising
Geology/Mathematics/Computer Science, Room 323. 619-594-6638
Psychology Advising Center
Life Sciences, Room 03619-594-5412

## DIVISION OF UNDERGRADUATE STUDIES

## Assistant Dean

Administration, Room 101............................................. 619-594-5841
Also advising in: Honors Program...................................................619-594-5841
Interdisciplinary Studies in Three Departments ...619-594-5841 Liberal Studies (Administration, Room 103) ........619-594-0597

## DIVISION OF GRADUATE AFFAIRS

## Associate Dean

Manchester Hall, Room 3320
619-594-5213
Monday-Thursday, 10:00 a.m.-4:30 p.m.
Advisement concerning general requirements (except for the major). A departmental graduate adviser is available in all programs offering graduate degrees.

## IMPERIAL VALLEY CAMPUS ADVISING

It is recommended that Imperial Valley Campus students see an adviser prior to registration each semester.

The following advisers correspond to the various majors and programs:

## Undergraduate

Agribusiness, International Business Lorena Malo
$.760-768-5637$
Criminal Justice Administration, Psychology Barbara Romero.
$.760-768-5509$
English, History, Spanish
Aracely Bojorquez......................................................760-768-5506
Latin American Studies, Mathematics, Public Administration Miguel Rahiotis.

760-768-5502

## Liberal Studies, Social Science

Americo Yacopi
.760-768-5603

## Graduate

MA in Education Dr. Olga M. Amaral .760-768-5512

## Master of Public Administration

Dr. Dana W. Murphy
.760-768-5544
Dr. Richard W. Ryan ....................................................................................760-768-5537
MS in Business Administration International Business Miriam Ungson

760-768-5505
Teacher Education
Dr. Olga M. Amaral
$.760-768-5512$

## Catalog, Bulletin, and Class Schedule

The General Catalog is published annually in May and can be purchased at the SDSU Bookstore. The catalog carries information on admissions, fees and tuition, programs and degrees, courses, scholarships, residence halls, student services and activities, and a faculty directory.

The Graduate Bulletin is published annually in May and can be purchased at the SDSU Bookstore.

The Class Schedule with instructions for registration is available at http://www.sdsu.edu/schedule.

The catalog and bulletin are available on the SDSU Web site at http://www.sdsu.edu.

Mail order information on the catalog and bulletin is available at http://www.aztecshops.com.

The College of Extended Studies also publishes three catalogs each year, in spring, summer, and fall, listing extension, certificate, and professional development programs and courses available to the general public. The catalog is free and can be mailed to interested students by calling the college at 619-594-5152.

## Student Services

## Division of Student Affairs

The Division of Student Affairs is a student-centered partner in the SDSU learning community. Education is enhanced, both inside and outside of the classroom, through quality services and programs that advance student access, learning, and retention.

The division contributes to academic and personal success, encourages independent civic responsibility, and promotes the welfare of all students. Student Affairs helps connect students to the university and to their future, building bridges that foster retention and loyalty beyond graduation.

The Division of Student Affairs consists of the following areas:
Career Services
Centers for Student Involvement
Counseling \& Psychological Services
Dean of Students, The Office of
Disabled Student Services
Educational Opportunity Programs/ Ethnic Affairs (EOP)
Financial Aid and Scholarships
Fraternity and Sorority Life
Health Services
International Student Center/Study Abroad
New Student and Parent Programs
Ombudsman
Residential Education Office
Student Rights and Responsibilities
Student Testing, Assessment and Research

## Career Services

Student Services, Room 1200
Telephone: 619-594-6851
http://career.sdsu.edu
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 Library contains occupational/career information, employer reference materials, directories, video and audio tapes, interactive computer assisted programs, and Internet resources for the job search.

A centralized listing of career positions, part-time jobs, campus jobs, volunteer positions, and internships is available in the Career Resource Room and electronically.

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 semester, a series of specialty fairs are scheduled, including one for summer jobs. Access to a bank of SDSU alumni (through the Career Consultants Network) helps students explore numerous career possibilities.

The on-campus interviewing program brings prospective employers and students together for career employment and internship interviews. Career Services' Web-based program, Aztec Career Connection, http://career.sdsu.edu, allows students and alumni access to these interviews, plus additional online services and information. Students are assisted in preparing for these interviews and all other aspects of the job quest through workshops and individual career counseling.

The American Humanics Program is designed to prepare students for careers in the nonprofit sector.

Various services are offered to alumni for a nominal fee.

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

## Counseling and Psychological Services (C\&PS)

Student Services, Room 2109 (moving summer 2006)
Telephone: 619-594-5220
http://www.sdsu.edu/cps
Counseling and Psychological Services (C\&PS) provides a variety of services to enrolled SDSU students.

The Alpha Chamber "Egg Chair" can teach your body and mind to relax. The "Egg Chair" provides an environment where students experience deep relaxation, both mentally and physically.

Individual counseling services are designed for students who can benefit from short-term therapy. Often, a few individual meetings with a therapist can help better identify, understand, and resolve emotional barriers that may be interfering with personal well-being and academic success. These confidential services are for SDSU students at no cost. If a student's situation requires longer-term therapy, referrals can be made to off-campus resources.

C\&PS groups and workshops address issues common to most university students. As appropriate, students are encouraged to participate in these interactive and dynamic forums:

## Alcoholics Anonymous

Building Self-Esteem
Communication Skills
Grief and Loss
Managing and Expressing Strong Feelings
Managing Depression
Managing Test Anxiety
Relationship Skills
Resilience
Stress Management
Substance Use/Abuse
Telephone consultation services may also be provided. If a student has a personal concern, or is concerned about a friend, a therapist will talk directly with the student by telephone for a brief consultation. This conversation will allow the therapist to hear concerns and help identify the best way to help. Faculty and staff may also avail themselves of this service. Therapists are generally available during business hours from 9:30 to 4:00, with the exception of the noon hour. Referrals to San Diego's free 24-hour counseling access line at 1-800-479-3339 are also provided.

Crisis intervention services are also available at C\&PS. For students who are in need of immediate assistance because of a severe emotional crisis that may be life threatening, or otherwise require immediate attention, urgent appointments may be provided. Examples of urgent situations may include: thinking about suicide, a victim of assault, losing control of drinking or drug use, grieving the recent loss of a friend or family member.

The Center for Well-Being offers resources designed to help students help themselves by exploring solutions to difficult personal or family issues. Resource topics, available in pamphlets, books, audio or video tapes, include: adult children of alcoholics, adults molested as children, assertiveness, coming out, concentration, depression, eating disorders, loneliness, motivation, relationships, self-confidence, sexual assault, stress reduction, suicide prevention, time management.

The C\&PS peer educators offer students who are selected, trained and supervised, an opportunity to provide peer education to other students. The C\&PS student advisory board members provide advocacy for students' mental health needs, a service sponsored by SDSU Associated Students.

## Office of the Dean of Students

Student Services, Room 1602 (moving summer 2006) Telephone: 619-594-5221
http://www.sa.sdsu.edu/dean/
The Office of the Dean of Students helps students connect to the university by providing student-centered programs, services, and opportunities. Involved students who engage in their own learning have a richer college experience. Academic and co-curricular activities support the personal and career goals of each student. Students are encouraged to pursue academic success, leadership development, personal growth, understanding of diverse human experiences, and civic responsibility. The Office of the Dean of Students includes the following:

## Centers for Student Involvement http://www.csi.sdsu.edu

- Center for Community Based Service-Learning - offers programs and resources to SDSU students, faculty, staff, and community members interested in participating in community service and service-learning. http://servicelearning.sdsu.edu
- Center for Fraternity and Sorority Life - refer to Fraternity and Sorority Life in this section for complete details. http://www.greeklife.sdsu.edu
- Center for Leadership Development - personal growth events and activities, including the Freshman Leadership Connection, leadership and personal growth workshops, a special leadership class for credit, and the Quest for the Best Vice Presidential Student Service Awards,
http://www.sa.sdsu.edu/studentinvolvement/leadership
- Cross-Cultural Center - provides safe spaces and fosters intellectual inquiry, identity development, social change, and acceptance of all people and cultures. To this end, the center offers resources and programs to inspire a student-centered multicultural community. http://www.sa.sdsu.edu/ccc
- Student Academic Success Center - provides tutoring services, academic success workshops, and learning resources.
- Student Organizations and Activities - on-campus status for clubs and organizations, implementation of policies and procedures with regard to student activities, and approval of all on-campus club activities, including fundraising events.
http://www.sa.sdsu.edu/studentinvolvement/clubs/index.html


## Student Testing, Assessment and Research <br> http://www.sa.sdsu.edu/testofc/index.html

Refer to Student Testing, Assessment and Research in this section of the catalog for complete details.

## Career Services

http://career.sdsu.edu
Refer to Career Services in this section of the catalog for complete details.

## Disabled Student Services (DSS)

Student Services, Room 1661 (moving summer 2006)
Telephone: 619-594-6473

## TDD: 619-594-2929

http://www.sdsu.edu/dss
Disabled Student Services provides support services for students with mobility limitations, learning disabilities, hearing or visual impairments, psychological disabilities, attention deficit disorder, and other
disabilities. Counselors are available to assist students in making personal, academic, and vocational choices, and show how best to utilize campus facilities. Prior to receiving assistance, appropriate medical documentation must be submitted to Disabled Student Services.

Services available to all DSS students include a writing center/ assistive computer technology lab (the High Tech Center) where students may use standard or assistive computer technology for assignments and may receive tutoring assistance with their writing. Other services available when appropriate include priority registration for students with special needs; close-in parking; transportation on campus and information about off-campus transportation; government benefits counseling; accessibility information; library study rooms; reader services and assistance with books on tape; sign language interpreters or real-time captioning for deaf students; accommodated testing assistance; loan of educational support equipment (tape recorders, amplification equipment, wheelchairs, etc.); tutoring and notetaking services, referral to off-campus agencies for mobility orientation, financial benefits; and other services.

In addition, DSS offers special sections of classes aimed at helping students achieve academic success and fulfill university requirements. Rhetoric and Writing Studies 280 is designed to help students develop their writing skills and satisfy the prerequisite for the upper division writing requirement. Rhetoric and Writing Studies 98A is designed to teach students effective test preparation, notetaking, and other strategies to help them improve their academic performance.

## Educational Opportunity Program/ Ethnic Affairs (EOP)

## Student Services, Room 2209

## http://eop.sdsu.edu

## E-mail: eop-sdsu@mail.sdsu.edu

The Educational Opportunity Program/Ethnic Affairs (EOP) is an undergraduate program designed to admit, retain, and graduate historically low income, first generation, disadvantaged college students. Eligible first time freshman and transfer students must be California residents and can only be admitted into the program during their first semester of attendance at SDSU. 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 or educational factors. Student services are provided throughout their undergraduate studies and are designed to insure academic success.

Comprehensive student services provided include outreach, recruitment, preadmission counseling, first contact program orientation, summer bridge program, priority registration for the first two semesters, personal counseling, academic advising, career guidance, individual tutoring, academic skills workshops, mentoring program, and an EOP grant. EOP advocates for multi- and cross-cultural activities to enhance the campus climate and increase the awareness of diversity on the campus.

EOP is a program in high demand with a limited number of admission spaces. Applicants who submit all required documents by the established deadlines will be reviewed based on their admission status and eligibility to our program. To apply to EOP, check the appropriate box on the CSU application to receive e-mail communication from our office. Download the EOP application form and mail the completed packet to the EOP office. You may check the EOP Web site for updated information on all of our programs.

## Fraternity and Sorority Life

## Student Services, Room 1602 (moving summer 2006)

## Telephone: 619-594-4745

## http://www.greeklife.sdsu.edu

The Center for Fraternity and Sorority Life in the Centers for Student Involvement oversees all aspects of Greek Life. Greek-letter social organizations create smaller communities within the larger university environment for the purposes of facilitating personal growth,
leadership development, and academic support. Fraternities and sororities also offer students opportunities for friendship, small group living, campus involvement, community service, participation in social and recreational activities, and alumni networking. At SDSU there are 16 general fraternities, 10 general sororities, 10 culturally based fraternities, and 14 culturally based sororities. Membership recruitment drives (sometimes referred to as "rush") occur at the beginning of each semester. The general fraternities and sororities and one of the culturally based fraternities operate chapter houses where members can reside. New members should generally not plan on living in the chapter houses until their second year.

## Health Services

Corner, Campanile Drive and Hardy Avenue (moving summer 2006) Telephone: 619-594-5281
http://shs.sdsu.edu
All regularly enrolled SDSU students have prepaid a health fee as part of their tuition and fees which entitles them to basic medical services. Some services, including annual Pap smears and pharmacy, require a minimal fee. Charges associated with these services are usually dramatically lower than those found elsewhere. This care is provided at Student Health Services, an on-campus center where health care providers offer a wide range of programs and services. Services include:

Medical care by physicians board certified in family practice, internal medicine, orthopedics, psychiatry, dermatology, and preventive medicine, and by certified primary care nurse practitioners; nursing, x-ray, optometry, and laboratory services; a pharmacy which dispenses prescriptions and over-the-counter items at cost; physical therapy; health-related counseling and campuswide health education programming offered by the Health Promotion Department. Students are responsible for the cost of their medical care.

## REQUIRED: Proof of Immunity Against Measles, Rubella, and Hepatitis B

All new or readmitted students born on or after January 1, 1957 must provide proof of immunity against measles and rubella (German Measles) during their first semester at SDSU. The minimum requirement 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 measles immunization.)

Students may fulfill the immunization requirement by bringing or sending medical documentation as proof of immunization to Student Health Services. Positive laboratory evidence of measles and rubella is also a way to prove immunization status. Students may also receive free immunization at Student Health Services. For more information, call 619-594-5281.

Important: Students who have not complied with this California State University mandate prior to the registration deadline will not be able to register for their second semester.

## Hepatitis B

All new students who will be 18 years of age or younger at the start of their first term must provide proof of immunity against hepatitis B during their first semester at SDSU. Hepatitis B vaccination consists of three timed doses of vaccine over a minimum four to six month period. (All students are encouraged to consider immunization against Hepatitis B.)

Students may fulfill the immunization requirement by bringing or sending medical documentation of immunization or positive laboratory evidence of hepatitis B to Student Health Services. Students may also receive low cost immunization at Student Health Services. For more information, call 619-594-5281.

Important: Students who do not comply with this California State University mandate during their first semester at SDSU will not be allowed to register for a second semester until they provide proof of immunity or begin the immunization series. Students who have not completed the immunization series by the end of their third semester
will no longer be able to attend SDSU. Students must provide proof of completion of the vaccine series to Student Health Services.

Immunization documentation should be mailed or brought to SDSU Student Health Services, Immunization Program, 5500 Campanile Drive, San Diego, CA 92182-4701. Documentation may also be faxed to 619-594-7469 (include name, address, telephone number, date of birth, and student ID number).

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.

## Meningococcal Disease

Each incoming freshman who will be residing in on-campus housing will be required to return a form indicating that they have received information about meningococcal disease and the availability of the vaccine to prevent one from contracting the disease and whether or not he or she has chosen to receive the vaccination.

Although immunization against this infection is not a requirement, all entering freshmen, particularly those living in residence halls, are urged to consider vaccination. The current vaccine is fairly effective against the majority of the strains of this bacterium, but unfortunately its immunity effect declines over a few years. Luckily, the risk of becoming infected with meningococcus also declines with age. Consequently, there is less of a reason to immunize older students, although they may do so if they desire. The meningococcal vaccine is available at Student Health Services at a reduced cost.

## Strongly Recommended Health Screening

Immunization from the following diseases may also protect students against potentially severe infections: tetanus, diphtheria, polio, mumps, chicken pox (varicella) and hepatitis A. Like measles, these too can be particularly harmful in the college-age group. These immunizations are available at reduced cost at Student Health Services. Flu shots are available annually, as well.

Entering students from developing countries 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. The clinic is open from 8:30 a.m. to 5:00 p.m., Monday through Friday. All medical care provided at Student Health Services is strictly confidential. No one, on or off campus, other than Student Health Services staff 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 also provided to faculty, staff, and campus guests for accidents and injuries occurring on campus with the understanding that individuals with severe injuries will be transferred to the most appropriate medical facility. Accidents requiring treatment and/or transportation to Student Health Services or a local hospital should be reported immediately to the SDSU University Police; telephone 619-594-1991.

SDSU students are regarded 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.

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.

Students participating in required or elective academic programs such as internships or practica may be covered under the university's Worker's Compensation program provided an internship agreement between the university and the facility has been executed by an authorized representative of the university. If the facility requires interns to provide and maintain professional liability insurance, it is the student's responsibility to secure professional liability insurance at their own expense. The university does not cover students' liabilities. This coverage is available through various companies, accreditation agencies, and memberships in professional organizations. Students should confirm the facility's requirement for this insurance and maintain acceptable limits in full force during the term of placement. The university makes no warranties as to the nature or quality of the coverage or the financial integrity of the insurers. The information on the availability of coverage is provided as a convenience to the students.

The university does not provide liability, accident or health coverage to students. Through the Associated Students, a supplemental 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 per semester or yearly basis. An open enrollment period is available the beginning of each semester, and the policy may be purchased at the Aztec Center Ticket Office or online at http://www.csuhealthlink.com. The university makes no warranties as to the nature or quality of the coverage or the financial integrity of the insurers. The information on the availability of coverage is provided as a convenience to the students.

## Housing Administration and Residential Education

6050 Montezuma Road
Telephone: 619-594-5742
http://www.sdsu.edu/housing
The Office of Housing Administration (OHA) and the Residential Education Office (REO) at SDSU are committed to fulfilling the university's mission of "educating the whole person" by offering students a living environment conducive to academic and personal success. According to research findings of the American Council on Education, students who live in residence halls have a better chance of succeeding in college; therefore, the university encourages students to live on campus at least two years while studying at SDSU. There are a variety of living environments convenient to campus facilities, to suit the varying needs of a diverse and dynamic student population. An active and nationally recognized residence hall student government provides residents a chance to gain leadership experience and become involved with their on-campus community.

## Residence Halls

Residence halls offer a variety of accommodations and special living communities. Currently, special living communities include the Living Learning Community (LLC) at Maya and Olmeca Halls, Toltec House, Identities and Communities in Action, International House, Housing Over the Break, Aztec Engineering, extended quiet study, substance-free, and physical fitness. These areas may vary from year to year depending upon student interest. Seven co-educational residence halls/complexes house about 3,500 students. Each hall/complex offers a lounge area, study room, recreation room, and laundry facilities. All residents have access to residential dining at the dining rooms in Cuicacalli Suites and University Towers.

On the east side of campus are Zura Hall, a nine-story high-rise; eight-story Tenochca; Cuicacalli, a complex of two, six-story halls featuring suite-style living; and the LLC at Maya and Olmeca complex of two, three-story, red-brick halls. On the west side are 11-story Chapultepec Hall and nine-story University Towers. Each red-brick hall accommodates approximately 210 students. High-rises house from 350 to 680 students each.

Cuicacalli Suites offers SDSU students a unique suite-style residence hall option where eight residents share a suite with double and single rooms and two full-size bathrooms. Cuicacalli accommodates 694 residents. University Towers (UT) offers students a mini-suite option with two double rooms sharing one bathroom. UT houses 560 residents.

Each hall offers double occupancy accommodations for single students. In most halls single rooms are very limited, except Cuicacalli Suites. A choice of meal plans are included with contracts at any of these halls (except Villa Alvarado). Apartment-style living is also available for returning and transfer students. The 90-unit Villa Alvarado apartment complex accommodates 354 students in furnished twobedroom units (four residents per apartment).

For the 2005-2006 academic year, the costs for room and board range from $\$ 7,848$ to $\$ 12,036$ depending on double or single occupancy and the meal plan selected. Fees for Villa Alvarado, which do not include board, were \$5,772 for the 2005-2006 academic year. Rates for all halls are reviewed and adjusted annually to meet cost-ofliving increases.

APPLICANTS SHOULD NOT WAIT FOR ACCEPTANCE TO SDSU BEFORE APPLYING FOR AN ON-CAMPUS HOUSING LICENSE AGREEMENT. Students may apply for a license agreement via the Internet at http://www.sdsu.edu/housing once they have applied for admission to the university and received their SDSU Red ID.

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 license agreement has been returned to the Office of Housing Administration; 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.

## Piedra del Sol Apartments

The Piedra del Sol Apartments are designed for returning SDSU students who want a truly independent lifestyle, with preference given to graduate and upper division students. Freshmen are not eligible to live at Piedra del Sol. This complex offers two, three, and four bedrooms in a 66-unit complex. Apartments are unfurnished and no residential program is offered.

## Off-Campus Housing

Since family housing is not available on campus, off-campus housing serves the needs of families and others. The Office of Housing Administration maintains an Off-Campus Housing Web site with current listings of off-campus rental units or roommate sharing. To view listings posted on the Web site, visit the Housing main page at http://www.sdsu.edu/housing.

## International Student Center (ISC)

## International Student Center

Telephone: 619-594-1982
http://www.sdsu.edu/isc
The International Student Center (ISC) advances San Diego State University as a global university by serving as a crossroads for international students seeking educational opportunities at SDSU, and for SDSU students seeking educational opportunities in other countries. The ISC offers a full range of programs and services to a variety of communities on and off campus in an effort to foster student success, global perspectives, intercultural awareness, and international goodwill.

## International Students

Working closely with almost 1,400 international students from more than 92 countries spanning the globe, the ISC provides support services that meet the logistical, regulatory, cultural, academic, and personal development needs unique to SDSU's most diverse student community.

The International Student Center coordinates a variety of activities designed to foster intercultural goodwill, understanding, and friendship. One such activity is provided by the Intercultural Ambassadors Program through which selected international students make home-country presentations in San Diego schools. The InterNational Partners Program provides service-learning opportunities for international students in the San Diego community by linking students and local community service organizations. In addition, the ISC invites faculty, staff, and the community to become American Friends to international students new to SDSU and to participate in the many events listed in the ISC Calendar of Intercultural Activities. These include the International Coffee Hour, International Peace Village, International Exchange Camps, and International Film Festivals.

## Study Abroad Students

The International Student Center provides services to all students who want to study abroad as part of their educational experience at SDSU. The ISC serves as SDSU's study abroad resource center and it acts as a window to the world for students beginning the journey. When students have questions about how to study abroad, what opportunities are available, or how to prepare for their time abroad, the ISC becomes their one-stop shop.

The ISC administers SDSU's reciprocal student exchange programs, providing various support services for participants in the 108 agreements SDSU has signed with institutions around the world.

The ISC serves as SDSU's liaison with the CSU International Programs Office (see the CSU International Programs listing) which offers CSU students the traditional year of study abroad experience. The ISC coordinates all promotion, recruitment, selection, processing, and orientation for the participants from SDSU.

The ISC also assists in coordinating SDSU's Risk Management Program for all SDSU students who study or travel in other countries. The focus of the program is to ensure that all participants are adequately insured and prepared for maintaining optimal health and safety abroad, and for planning how to respond to a wide range of possible emergencies.

As with increasing inbound international enrollment, the ISC plays a central role in SDSU's efforts to dramatically increase study abroad enrollment. In the last six years, the number of SDSU students studying abroad has increased more than 500 percent (from 167 to over 1,200 students), ranking us in the top two institutions in the United States in our category.

## The California State University 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. More than 15,000 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 more than 70 recognized universities and institutions of higher education in 18 countries, the International Programs also offers a wide selection of study locales and learning environments.

Australia. Griffith University, Macquarie University, Queensland University of Technology, University of Queensland, University of Western Sydney, Victoria University

Canada. The universities of the Province of Quebec including: Bishop's University, Concordia University, McGill University, Université Laval, Université de Montréal, Université du Quebec system

Chile. Pontificia Universidad Católica de Chile (Santiago)
China. Peking University (Beijing)
Denmark. Denmark's International Study Program (the international education affiliate of the University of Copenhagen)

France. Institut des Etudes Francaises pour Étudiants Étrangers, L'Académie d'Aix-Marseille (Aix-en-Provence), Universités de Paris III, IV, V, VI, VII, VIII, IX, X, XI, XII, XIII, the Institute of Oriental Languages and Civilizations, and Université Evry

Germany. Universität Tübingen and a number of institutions of higher education in the Federal State of Baden-Württemberg

Israel. Tel Aviv University, The Hebrew University of Jerusalem, University of Haifa

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

Japan. Waseda University (Tokyo)
Korea. Yonsei University (Seoul)
Mexico. Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), Campus Querétaro

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

Spain. Universidad Complutense de Madrid, Universidad de Granada
Sweden. Uppsala Universitet
Taiwan. National Taiwan University (Taipei), National Tsing Hua University

United Kingdom. Bradford University, Bristol University, Hull University, Kingston University, Sheffield University, University of Wales Swansea

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. Financial aid, with the exception of Federal Work-Study, is available to qualified students.

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 colleges. 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 International Student Center or by writing to The California State University International Programs, 401 Golden Shore, Sixth Floor, Long Beach, California 90802-4210. Visit the Web site at http://www.gateway.calstate.edu/csuienet/.

## New Student and Parent Programs

Student Services, Room 2549 (moving summer 2006) Telephone: 619-594-1509
http://www.sa.sdsu.edu/nspp
The Office of New Student and Parent Programs provides programs and services that help all new students and their families connect to SDSU. Research has shown that students who make a connection early in their college career, are given proper tools to navigate the university, and have involved parents, are more likely to be academically successful and have a better all-around college experience.

## Orientation

The office coordinates all orientation programs for both incoming students and their parents. The student program is academically focused, providing assistance with course selection, General Education and competency requirements, and registration. The separate but concurrent Parent Orientation helps parents of new students understand policies, procedures, and issues facing students today.

## New Student and Family Convocation

Convocation is a ceremony to honor a new beginning. Held shortly before classes begin each fall, it is a time to officially welcome all new students and their families to our university community. Each year, thousands of new students and their families mark the important transition of attending SDSU by attending this ceremonial event.

## Welcome Week

Welcome Week is a special tradition at SDSU. It is filled with fun and informative events for all students - new freshmen and transfer students; commuter students and those living on campus; and graduate and returning students. Welcome Week is considered a "must" for students who want to really know SDSU and its resources. Welcome Week features interactive activities, entertainment, college tips and special events for students to enjoy, and is held at the beginning of each fall semester.

## Campus Tours

The two-hour program includes a 40 to 60-minute walking tour and a 60-minute interactive presentation. The walking tours highlight various landmarks at SDSU including Hepner Hall, Cox Arena, and Aztec Center. It encompasses the main part of the campus including narration on the history and traditions of the university, student life, and student services. Walking tours are conducted by the SDSU Ambassadors, current students specially trained to share their university experience with prospective students and their guests.

The 60-minute interactive presentation is provided by an SDSU admissions representative. During the presentation, you will learn about academic life at SDSU; admissions requirements; and SDSU's student services. Campus information packets will be provided during the presentation

Campus tours are conducted daily during the academic year and on a reduced schedule during winter break, spring break, and the summer. For more information about campus tours, contact the SDSU Ambassadors at 619-594-6868.

## The SDSU Ambassadors

The SDSU Ambassadors are the official tour guides, orientation leaders, and student representatives of San Diego State University. The Ambassadors are 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 Ambassadors at 619-594-6868 or via e-mail at ambassad@mail.sdsu.edu

## The Aztecs Parents Association

The Aztec Parents Association is a parent's personal connection to SDSU. It is a dynamic volunteer organization committed to keeping parents involved in their student's education and to supporting programs and services for SDSU students. It provides membership, benefits, the News for Aztec Parents newsletter, involvement opportunities through
the Aztec Parents Advisory Board, programming services, and events. Other programs and services for parents include:

- On-campus liaison for parents, including the Parent Hotline and e-mail, giving parents a voice at SDSU.
- Fundraising and development to support programs and services that directly benefit students, such as safety, advising, leadership, health, and counseling. State funding only pays a small percentage of each student's education. Now, more than ever, parent support is vital to ensure quality programs and services for students.


## Family Weekend

Held each fall, Family Weekend is a time for families to come to campus to get a glimpse of their student's life at SDSU. The weekendlong event provides a wide variety of fun activities, informational events, and behind-the-scenes campus tours. A special pre-football game reception is held for Family Weekend participants at Qualcomm Stadium, along with group seating at the game. Parents and other family members can attend classes with their student (with permission from the professor), shop the SDSU Bookstore at a discount, attend a lively picnic and serenade, and have breakfast with SDSU administrators and faculty. Sponsored by the Aztec Parents Association, Family Weekend gives students a chance to show off SDSU to their families.

## Ombudsmen

## Student Services, Room 1105

## Telephone: 619-594-6578

http://www.sa.sdsu.edu/ombuds
Becoming a student at SDSU also means becoming a member of a special community that 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 that may best resolve the problem.

Examples of student complaints that 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 term) after the semester during which the student was allegedly aggrieved.

## Student Rights and Responsibilities

## Student Services, Room 1604

## Telephone: 619-594-3069

## http://www.sa.sdsu.edu/srr

The Center for Student Rights and Responsibilities incorporates compliance and judicial procedures, two distinct components. The center serves to clarify for students their role as members of the campus community, setting forth what is expected of them in terms of behavior and contributions to the success of the university. This center also serves to further San Diego State University's commitment to maintaining a campus environment free from harassment and promoting a policy of non-discrimination.

The center is charged with investigating complaints filed by students alleging discrimination or sexual harassment, providing sexual harassment prevention workshops, reviewing university policy, monitoring campus disputes, and serving as a resource to the administration on issues of regulatory law, constitutional law, and risk management.

The judicial component is responsible for acting on behalf of the university president regarding all aspects of student discipline. The center receives reports of alleged student misconduct relative to Title 5, California Code of Regulations, and investigates complaints in order to determine whether university disciplinary action is to be pursued. University disciplinary action may run concurrently with civil or criminal action initiated by the court system. Campus related violations include both academic and non-academic misconduct.

To review SDSU's Statement of Student Rights and Responsibilities, visit http://www.sa.sdsu.edu/srr/statement.

## Student Testing, Assessment and Research (STAAR)

Student Services, Room 2549
Telephone: 619-594-5216
FAX: 619-594-5036

## http://www.sa.sdsu.edu/testofc/index.html

The Student Testing, Assessment and Research (STAAR) Office is an important resource for the entire university community, serving both students and faculty by administering paper and pencil and computer-based tests for the purposes of admission, class placement, competency for graduation, licenses, and credentials. Test
scoring and analysis services are provided for classroom tests. The office also conducts a comprehensive program to measure the needs, attitudes, perceptions, behaviors of students, identify factors affecting retention, progression to degree, academic success, and assesses the effectiveness of Student Affairs programs and services.

Test dates for San Diego State University competency and placement tests are listed in the Test Information section of the current Class Schedule and on our Web site. Advance reservations as well as fee payments are required for most tests. The Student Testing, Assessment and Research 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. Reservations for computer-based tests can be made at the Student Testing, Assessment and Research Office, 619-594-0968. Students who are interested in assessments for counseling or career planning must contact Counseling \& Psychological Services or Career Services respectively. Special arrangements for disabled students are made through Disabled Student Services.

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


Photo: Ernie Anderson

# 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 their educational costs. Most students qualify for some type of assistance. For resources that recognize academic excellence, refer to the following information on scholarships. Only United States citizens and eligible noncitizens can receive financial aid.

Information about all state and federal aid programs and institutional aid programs is available from the Office of Financial Aid and Scholarships located in Student Services, Room 3605. The phone number is 619-594-6323. The SDSU Guide to Financial Aid describes the available programs as well as the academic standards that a student must maintain in order to remain eligible for such aid. The Guide to Financial Aid can be accessed at http://www.sdsu.edu/financialaid.

## 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.

The FAFSA is all you need to begin the application process. You may apply by using FAFSA on the Web site at http://www.fafsa.ed.gov. Paper FAFSA applications are also available and may be picked up at high school counseling offices and college financial aid offices.

Applications are reviewed and awarded throughout the year based on available funding. January through May, however, is considered the optimum time period to apply for aid to receive funding at the beginning of the fall semester.

## Cost of Living

San Diego State University establishes standard student budgets in coordination with the California State University system that meet federal requirements. Student budgets, updated annually to account for inflation are currently:

## Costs of Attendance for the 2006-2007 Academic Year

|  | Living off <br> Campus | Living on <br> Campus | Commuting <br> from Home |
| :---: | :---: | ---: | ---: | ---: |
| Registration fees ................. | $\$ 3,122$ | $\$ 3,122$ | $\$ 3,122$ |
| Books and supplies ............. | 1,283 | 1,283 | 1,283 |
| Food and housing ................ | 9,352 | 10,093 | 3,429 |
| Transportation ..................... | 1,043 | 816 | 840 |
| Miscellaneous/Personal ......... | 2,496 | 2,392 | 2,572 |
|  |  | $\$ 17,706$ | $\$ 11,246$ |

The academic year registration fee for a postbaccalaureate student is $\$ 3,704$ and $\$ 3,524$ for a teaching credential student. In addition to the registration fee, nonresident (foreign and out-of-state) students pay tuition of $\$ 339$ per unit (see Schedule of Fees section). All fees and costs are subject to change without notice.

## Refund Policy

Information concerning the refund policy of San Diego State University for the return of unearned tuition and fees or other refundable portions of institutional charges is available from the University Cashiers Office, Student Services, Room 2620, 619-594-5253.

Information concerning San Diego State University policies regarding the return of unearned aid to the federal Title IV student assistance programs is available from the Office of Financial Aid and Scholarships, Student Services, Room 3605, 619-594-6323.

## E-Mail and the Internet

The SDSU Office of Financial Aid and Scholarships uses e-mail and the Internet to communicate with aid applicants about documentation needed, disbursement holds, and awards. The Office of Financial Aid and Scholarships home page and secure Web site, AidLink, have been enhanced to streamline the application and award process for SDSU students. Go to SDSU's Web site at http://www.sdsu.edu/ portal and select E-Mail/Address Update to make sure there is a valid e-mail address on record for you with the Office of the Registrar. Use AidLink at http://www.sdsu.edu/financialaid to view your personal financial aid information, download and print documents you need to submit, activate your student loan, and more.

## Scholarships

Scholarships are awarded to students in recognition of outstanding achievement, community involvement, leadership, and promise. Scholarships are also awarded to students who have overcome significant challenges to obtain an education and to provide financial support to students for academic related activities, such as conference attendance and study abroad. All students, regardless of nationality, citizenship, residency status, area of study, or grade point average are encouraged to apply for as many scholarships as possible.

Applications and specific requirements are available on the SDSU Office of Financial Aid and Scholarships Web site at http:// www.sdsu.edu/financialaid. The Web site offers students the ability to search for available scholarships in a variety of ways. Search results can produce a list of scholarships for a particular major course of study, scholarships that are available regardless of major, scholarships that are open for application now, and so on. Grade point average requirements vary and are listed in the eligibility description of each scholarship resulting from the search. The Office of Financial Aid and Scholarships coordinates the scholarship application and awarding process with the committees from the various academic departments and organizations responsible for selecting recipients.

Deadlines vary and new scholarship opportunities are added to the Web site throughout the year. Students may apply for scholarships after the deadline if the application is still open on the Web site. The main application filing period is November through early February for awards paid in the following academic year. A second filing period extends from early March through April. Applications accepted August through October offer awards paid in the current academic year.

Scholarship funds are provided by private donors, corporations, professional associations, and SDSU alumni. 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 and application information is available on the Office of Financial Aid and Scholarships Web site at
http://www.sdsu.edu/financialaid.

## Fellowships Administered by Departments

Students receive fellowships or traineeships through the various departments. Federal, state, and private industry supporting 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 a particular area of study should check with an adviser in the department of their major to determine what fellowship support might be available to them


# College of Arts and Letters 

## Administration

Dean: Paul Wong
Associate Dean: Edward V. Heck
Associate Dean: Linda D. Holler
Assistant Dean for Student Affairs: Leslie S. Johnson
Director of Development: Nancy Lemkie
Director of Resource Management: Lesley Bryant

## 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 <br> Geography

## Master's Degrees

Anthropology (M.A.), Asian Studies (M.A.), Chicana and Chicano Studies (M.A.), Creative Writing (M.F.A.), Criminal Justice and Criminology (M.S.; jointly with the College of Professional Studies and Fine Arts), Economics (M.A.), English (M.A.), French (M.A.), Geography (M.A., M.S.), History (M.A.), Latin American Studies (M.A., M.B.A./ M.A.; jointly with the College of Business Administration, M.P.H./M.A.; jointly with the College of Health and Human Services), Liberal Arts and Sciences (M.A.), Linguistics (M.A.), Philosophy (M.A.), Political Science (M.A.), Rhetoric and Writing Studies (M.A.), Sociology (M.A.), Spanish (M.A.), Women's Studies (M.A.).

## Bachelor's Degrees

Afro-American Studies (B.A.), Anthropology (B.A.), Asian Studies (B.A.), Chicana and Chicano 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., B.S.), German (B.A.), History (B.A.), Humanities (B.A.), International Business (B.A.; jointly with the College of Business Administration), International Security and Conflict Resolution (B.A.; jointly with the College of Professional Studies and Fine Arts and the College of Sciences), Japanese (B.A.), Latin American Studies (B.A.), Linguistics (B.A.), Philosophy (B.A.), Modern Jewish Studies (B.A.; consortial within CSU), Political Science (B.A.), Religious Studies (B.A.), Russian (B.A.), Russian and Central European Studies (B.A.), Social Science (B.A.), Sociology (B.A.), Spanish (B.A.), Urban Studies (B.A.), Women's Studies (B.A.).


#### Abstract

Minors African Studies, Afro-American Studies, American Indian Studies, Anthropology, Asian Studies, Chicana and Chicano Studies, Chinese, Classics, Comparative Literature, Economics, English, Environment and Society, European Studies, French, Geography, German, History, Humanities, International Security and Conflict Resolution (jointly with the College of Professional Studies and Fine Arts and the College of Sciences), Islamic and Arabic Studies, Italian, Japanese, Jewish Studies, Latin American Studies, Linguistics, Philosophy, Political Science, Portuguese, Religious Studies, Rhetoric and Writing Studies, Russian, Sociology, Spanish, United States-Mexican Border Studies, Women's Studies.


## Preprofessional Curriculum <br> Prelegal

## Certificate Programs

Applied Linguistics and English as a Second Language (ESL), Children's/Adolescent Literature, Geographic Information Science, Spanish Court Interpreting (available at Imperial Valley Campus only), Spanish Translation Studies, Technical and Scientific Writing, United States-Mexico Border Studies.

## Research Centers and Institutes

## Africana Center for Cultural Literacy and Research JoAnne Cornwell and Francis Nesbitt, Co-Directors

The Africana Center for Cultural Literacy and Research provides independent and collaborative projects (across a broad spectrum of academic disciplines) that create professional development opportunities with an Africana cultural focus for students, faculty and staff; research opportunities for students and faculty; and culturally enhanced teaching opportunities for SDSU faculty. The center's programs also provide venues for community service which focus on Africana cultural groups.

The Africana Center is housed in the Department of Africana Studies and can be reached by calling the department office at 619-5946531 or Dr. Cornwell at 619-594-4131.

## Bread and Roses Center

The Bread and Roses Center for the promotion of creativity, scholarship, and community action in support of the women's movement, is the first such center in the nation.

The center brings activists, artists, and scholars committed to feminist social change to SDSU to network with colleagues and students on the campus and in the San Diego community, and to reflect upon and reorient their practices. Visiting residents of the center benefit from the opportunity for rejuvenation. The center also supports a strong international community of artists, students, scholars, and community activists working to achieve equality for women. The center hosts such activities as colloquia, festivals, readings, exhibitions, and special events. For those wishing to expand their knowledge of women's movements, the center provides a forum for courses, guest lectures, and workshops. The center enhances two missions of SDSU: promoting internationalization of the curriculum and students' learning experiences, and reaching out to, and positively interacting with, the larger San Diego community.

The Bread and Roses Center is housed in the Department of Women's Studies and can be reached by calling the department office at 619-594-2952. The Web site is http://www-rohan.sdsu.edu/ dept/wsweb/bread_roses.html.

## Chinese Studies Institute <br> Li-Rong Lilly Cheng, Director

The Chinese 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. The Web site is http://www-rohan.sdsu.edu/~csi/index.htm.

## Institute of Druze Studies (IDS) <br> Samy Swayd, Director

The Institute of Druze Studies (IDS) is an academic non-profit organization dedicated to research and discourse on the Druzes and related topics. The Druzes are a Middle Eastern minority group that live predominantly in the mountainous regions of today's Lebanon, Syria, Jordan, Israel, and with smaller numbers elsewhere around the world. More than 25,000 Druzes live in the United States with California as the main center of the American Druze Society (ADS). The Druze sect began in Cairo and has survived for almost one thousand years.

The IDS aims to 1) provide information on Druze history, society, and faith; 2) encourage research and studies on historical and contemporary Druze communities; and 3) promote academic discourse about other immigrant religious communities. The IDS pursues these objectives through an international multidisciplinary conference, an academic journal, and a newsletter. The IDS participates in professional conferences and provides guest lectures to interested organizations.

For more information, call the IDS office at 619-594-1880, the Department of Religious Studies at 619-594-5185, FAX 619-594-1004, or http://www.druzestudies.org.

## Center for Earth Systems Analysis Research (CESAR) Allen Hope and Douglas Stow, Co-Directors

The Stephen and Mary Birch Foundation Center for Earth Systems Analysis Research (CESAR) was founded in 1986 as a computerbased facility for geographic information science research and instruction that is administered by the Department of Geography. The purpose of the center is to apply state-of-the-art, geo-spatial technology in geographic information systems (GIS), global positioning systems (GPS), remote sensing, image processing, automated cartography, spatial statistics, and spatial modeling to problems with geographic dimensions. As such, a number of Geography Department faculty are affiliated with the center. Research conducted by CESAR is directed at both applied and fundamental problems in fields ranging from urban and regional planning to earth system science. This research includes computer-based map and image data processing and spatial simulation modeling, as well as field-based data collection. CESAR has extensive hardware, software, imaging systems, and field equipment resources in its four laboratories: (1) Richard Wright Spatial Analysis Laboratory, (2) Regional Analysis Laboratory (REGAL), (3) William Finch Remote Sensing Laboratory, and (4) Stephen and Mary Birch Foundation GIS Laboratory.

For more information about on-going research projects or services provided by CESAR, or for a demonstration of its capabilities, call 619-594-8042 or 619-594-5437 or dave@geography.sdsu.edu.

## Donald I. Eidemiller Weather Station Edward Aguado, Director

The Donald I. Eidemiller Weather Station serves as a teaching and research resource. 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 45 years.

## Institute for Ethics and Public Affairs Darrel Moellendorf, Director

The Institute for Ethics and Public Affairs at San Diego State University seeks to promote critical thinking about moral issues that are often complex in nature. It aims both to be a resource to members of the campus community, the larger community of scholars, and the greater San Diego community who wish to pursue thoughtful discussion and research as a means of clarifying moral problems. It also aims to raise the profile of the moral dimensions of contemporary issues. The institute is housed in the Department of Philosophy, but seeks interdisciplinary discussion and collaboration since clarity on contemporary moral problems often involves both the application of normative theorizing and empirical investigation. The institute organizes and sponsors a variety of programs on applied and theoretical moral issues. Among these programs are colloquia, community outreach talks, lectures, and student essay contests. The Web site is http://ethics.sdsu.edu/.

## Center for European Studies James L. Schorr, Director

The Center for European Studies, through its associated faculty and students, is committed to the multidisciplinary study of Europe and its dynamic and evolving calculus of nations, cultures, languages, and perspectives. The center is a vehicle for fostering appreciation of Europe, the societies and cultures within its geographical boundaries, and the ideas that make up various European realities. The center will develop grant funded programs (e.g. colloquia, symposia, etc.), collaborative teaching and research opportunities, faculty exchanges, internship leads for partner programs, workshops, and related activities.

For more information regarding the Center for European Studies, contact James L. Schorr, Department of European Studies, 619-5945111 or 594-5671; jschorr@mail.sdsu.edu.

## Charles Hostler Institute on World Affairs Paul Wong, Director

The Charles Hostler Institute on World Affairs, founded in 1942, is beginning its $65^{\text {th }}$ year at San Diego State University. It is the second oldest organization of its kind west of the Mississippi River. Its purpose is to make available to the SDSU community, and to the people of Southern California, a forum for the discussion of critical topics in international affairs. This purpose is accomplished primarily by inviting distinguished authorities to address the institute on issues of contemporary international import. The institute has hosted ambassadors to the U.S. from Australia, Belgium, Brazil, China, Czechoslovakia, Finland, Germany, Greece, Hungary, India, Italy, Jordan, Korea, Malaysia, Mexico, Netherlands, Nigeria, Pakistan, Singapore, Sweden, Syria, Thailand, and Yemen. Distinguished speakers have included Nobel Laureates Willard Libby, Linus Pauling, and Harold Urey, as well as Professors Hans Morgenthau and Robert Scalapino, British Ambassador to the United Nations Lord Caradon, American statesman Ralph Bunche, California Governor Pat Brown, French diplomat and author Romain Gary, Austrian Chancellor Kurt Schuschnigg, Russian Premier Alexander Kerensky, and USAF Chief of Staff and SDSU graduate General Merril McPeak. American politicians, military and government officials, diplomatic and governmental representatives from Africa, Asia, Europe, Latin America, and the Middle East have also participated in institute sessions over the last 60 years.

Institute events are held on campus, in Hardy Tower 140 from 7:009:30 p.m. on Thursday evenings, during the spring semester.

For more than half a century, the institute has functioned according to the motto - AUDIATUR ET ALTER A PARS (Let The Other Side Be Heard). Given today's pressing problems of international affairs and the obligation of an excellent university to help inform students, faculty, and the wider community regarding these problems, the Charles Hostler Institute on World Affairs plays a critical role in the educational mission of SDSU.

## Center for International Business Education and Research (CIBER) <br> Mark J. Ballam, Managing Director

The Center for International Business Education and Research (SDSU CIBER) is one of 30 centers of excellence in the United States and was established in 1989 under a grant from the U.S. Department of Education and is administered by the College of Arts and Letters and the College of Business Administration.

CIBER promotes: (1) interdisciplinary programs which incorporate foreign language and international studies training into business, finance, management, communications systems, and other professional curricula; (2) interdisciplinary programs which provide business, finance, management, communications systems, and other professional training for foreign language and international studies faculty and advanced degree candidates; (3) evening or summer programs, such as intensive language programs, available to members of the business community and other professionals, which are designed to develop or enhance their international skills, awareness, and expertise; (4) collaborative programs, activities, or research involving other institutions of higher education, local educational agencies, professional associations, businesses, firms or combinations thereof, to promote the development of international skills, awareness, and expertise among current and prospective members of the business community and other professionals; (5) research designed to strengthen and improve the international aspects of business and professional education and to promote integrated curricula; and (6) research designed to promote the international competitiveness of American businesses and firms, including those not currently active in international trade.

The CIBER Web site is http://www.sdsu.edu/ciber.

## International Population Center (InterPop) John R. Weeks, Director

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

Although it is located in the Department of Geography, InterPop is a multidisciplinary facility, linking center faculty from several departments on campus with center associates from other organizations and universities in the San Diego region. The telephone number for the center is 619-594-8040. The Web site is http://geography.sdsu.edu/ Facilities/Centers/ipc.html.

## Institute for International Security and Conflict Resolution (IISCOR)

## Dipak K. Gupta, Director

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 College of Arts and Letters, the College of Professional Studies and Fine Arts, and the College of Sciences. IISCOR is administered by a director and 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 Bachelor of Arts degree in International Security and Conflict Resolution. The Web site is http://www-rohan.sdsu.edu/ ~iiscor/.

## International Studies Education Project (ISTEP) Elsie Begler, Director

The International Studies Education Project (ISTEP), located in the College of Arts and Letters, supports the twin SDSU priorities of community outreach and internationalization through the promotion of international studies education in our schools and community. Programs designed to improve teaching and learning at the pre-collegiate level are emphasized, with particular foci on the social sciences and humanities as they relate to international, cross-cultural and citizenship education within both the domestic American and wider global context.

ISTEP programs are multidisciplinary and collaborative in nature, involving partnerships with other SDSU academic departments, centers and institutes, as well as with other educational institutions and community groups. Programs include in-service teacher training and professional development workshops and institutes, curriculum development, student-focused programs, and partnerships with schools and districts. The project also provides assistance to College of Arts and Letters faculty interested in incorporating community ser-vice-learning into their classrooms through collaborations with $\mathrm{K}-12$ schools. The ISTEP Instructional Resource Center is a "demonstration" collection of K-12 instructional materials in global issues, world areas and cultures, and cross-cultural education available to SDSU students and educators throughout San Diego County. Project activities and resources are publicized through the ISTEP newsletter, Global Vistas.

For more information, call 619-594-2412 or 619-594-1105 or visit ISTEP's Web site at http://istep.sdsu.edu.

## International Technology and Trade Network (ITTN) Marc Siegel, Director

The International Technology and Trade Network (ITTN), an institute of San Diego State University's Center for International Business Education and Research (CIBER), is a collaborative offering of the College of Arts and Letters and the College of Business Administration. The objective of the ITTN is to promote methods for creating a stable economic environment for transnational business, trade, and research. The institute will seek ways to use business as a catalyst for regional peace and cross-border economic development. This effort will focus on networking together business assistance organizations, academic institutions, and research centers in regions of conflict and emerging economies. We will establish a virtual business assistance network that will take advantage of the latest Internet, information, and telecommunications technologies to provide business-to-business and organizational links. We will use these technologies to share information as well as provide educational, training and distance learning opportunities to participating members of the network.

## Center for Islamic and Arabic Studies Paul Wong, Acting Director

The Center for Islamic and Arabic Studies administers the minor in Islamic and Arabic Studies. It is committed to supporting teaching and research focused on the lives of Muslim and Arabic-speaking peoples past and present. The center's study of the Islamic world focuses on the global context in which Islam emerged historically, the cultures and societies that it helped shape, most especially in Eurasia and Africa, and the current global condition in which people in the Islamic world situate themselves today. It sees the Arabic language as the cultural medium for diverse ways of life that are of world-historical significance.

The center is multi-disciplinary and includes in its scope of study the Arabic and Persian languages and literatures; the history of Muslim and Arabic-speaking peoples; political, economic, and social dynamics of contemporary societies; art and architecture; social, political, religious, and philosophic thought; and the experience of Muslim communities in the United States and around the world. For more information, contact Farid Abdel-Nour at 619-594-6598 or abdelnou@mail.sdsu.edu. The Web site is http://www-rohan.sdsu.edu/~cias/index.htm

## Center for Latin American Studies James B. Gerber, Director <br> Ramona L. Pérez, Associate Director

The Center for Latin American Studies supports teaching and research related to Latin America. It has primary responsibility for the administration of the Latin American studies undergraduate and graduate degrees. It also participates in joint degree programs in international business, business administration, and public health. Since 1976, the Center for Latin American Studies has been designated a National Resource Center for Latin American Studies by the United States Department of Education and funded through a Title VI grant, in consortium with the Center for Iberian and Latin American Studies at the University of California, San Diego. CLAS, along with CIBER and LARC, is one of three Title VI funded centers on the San Diego State University campus. In conjunction with this award, the center administers programs that are interdisciplinary, drawing on the expertise of an outstanding Latin Americanist faculty from the following departments and schools: Anthropology; Art, Design, and Art History; English and Comparative Literature; Economics; Geography; History; Political Science; Public Administration and Urban Studies; Public Health; Social Work; Sociology; Spanish and Portuguese Languages and Literatures; Women's Studies; and the College of Business Administration. In addition, the center is involved with the development of innovative methods of instruction in Spanish, Portuguese, and Mixtec; the provision of information and in-service training programs for elementary and secondary school teachers; and 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. The center has cooperative agreements for research, faculty, and student exchanges with several Latin American universities, particularly in Mexico, Chile, and Costa Rica. The Web site is http://www.rohan.sdsu.edu/dept/latamweb/latnw.html.

## 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 the CSU consortial major in Modern Jewish Studies and the Jewish Studies minor at SDSU. 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, the Robert Siegel Memorial Lecture, and the Jewish heritage video collection housed in the library's Media Center. It also complements regular course offerings by sponsoring lectures, acting as a community resource on Jewish studies, and housing the Jewish Historical Society of San Diego archives in the Snyder Judaic Studies reading room (Love Library 363). The Web site is http://www-rohan.sdsu.edu/dept/lipinsky/ whatis.html.

## National Center for the Study of Children's Literature (NCSCL) Jerome J. Griswold, Director

Situated in the Department of English and Comparative Literature, the National Center for the Study of Children's Literature (NCSCL) reflects SDSU's long-term and extended commitment to the literary study of children's and adolescent literature. The largest in North America and one of the oldest, SDSU's children's literature program employs more than a dozen faculty (many with international reputations in the field) and garners more than 1100 student enrollments every year in its undergraduate classes and the M.A. Specialization in Children's Literature.

As a research center, the NCSCL hosts visiting scholars, sponsors annual lectures and festivals, and provides faculty with the wherewithal to engage in scholarship in a collegial environment. In terms of community outreach, NCSCL faculty conduct summer workshops and professional development seminars for $\mathrm{K}-12$ teachers and university faculty offering classes in children's literature; they also discuss books for the young in various media outlets and speak to public and professional groups. Finally, in partnership with Parents' Choice, faculty from NCSCL review and evaluate contemporary children's books on the largest Web site of its kind in the country. For more information: see http://childlit.sdsu.edu/ or e-mail childlit@mail.sdsu.edu.

## National Language Resource Center/ Language Acquisition Resource Center (LARC) Mary Ann Lyman-Hager and Paul Wong, Co-Directors

SDSU created the Language Acquisition Resource Center (LARC) in 1989 to improve the capacity of the university to teach foreign languages more effectively. In 1990, LARC at SDSU became one of the first three national Language Resource Centers (LRCs), with funding from the U.S. Department of Education. LARC's authorized activities are to conduct research in second language acquisition, to develop new means of assessing language proficiency, to train foreign language teachers, to enhance cross-cultural competence, to develop high levels of language competence, particularly in critical less com-monly-taught languages, and to explore advanced technologies to enhance language learning experiences. Currently the U.S. Department of Education funds 14 campus-based national centers. SDSU's center has one of the nation's finest multimedia collections and language laboratory facilities, with digitizing and desktop video conferencing capabilities, a research library, smart classrooms, and faculty offices. The laboratories also serve foreign language students in several departments (European Studies, Linguistics and Oriental Languages, and Spanish and Portuguese).

LARC has enhanced its infrastructure and internet capabilities in order to explore and develop models of distributed and distance learning. These models reflect the changing demographics of SDSU students and require new curricula to reflect student learning preferences. Our digital media archive houses learning objects, authentic materials, lesson plans, and courses and allows for online contributions from national and international collaborators.

LARC hosts a companion center, the Center for the Advancement of Distinguished Language Proficiency, whose major purpose is to create opportunities for learners of Arabic, Persian, Spanish, Chinese, and other important world languages to reach advanced, superior, and distinguished levels of proficiency through on-site intensive courses, fol-low-up online learning experiences, and study abroad. Another major emphasis of LARC faculty is to facilitate the learning of less commonly taught languages of Latin America, in collaboration with the Center for Latin American Studies and other national resource centers funded by the U.S. Department of Education. To evaluate students' progress through levels, we are developing online diagnostic assessment tools. The Web site is http://larcnet.sdsu.edu/.

## Qualitative Research Center Paul W. Sargent, Director

The Center for Qualitative Research, located within the Department of Sociology at San Diego State University, promotes the use of qualitative methods in the quest to understand and explain important aspects of social organization. Over 20 departments and programs from across the seven colleges of SDSU are represented in the center's core group of participants. Qualitative researchers utilize a wide range of methods to gather data including participant observation, in-depth interviews, content analysis, focus groups, photography, film, and videography to accomplish a holistic study of social meanings, social relations, and social institutions. The primary objectives of the center are to:

- Create and sustain an interdisciplinary community of scholars whose principal research focus is qualitative rather than quantitative.
- Organize and facilitate workshops and colloquia focusing on the key issues facing qualitative researchers such as methodological, epistemological, and ethical issues.
- Provide a forum for the dissemination of the products of qualitative research across all disciplines. In particular, the center sponsors several colloquia each academic year where faculty and students can showcase their work to an appreciative audience. In addition, the center archives and publicly displays samples of ethnographic work.
- Furnish a connection between the intellectual community of San Diego State University and surrounding communities by promoting locally relevant research.
For more information call 619-594-2783; CQR@sdsu.edu. The Web site is http://www-rohan.sdsu.edu/~psargent/PaulHome.html.


## Institute for Regional Studies of the Californias (IRSC) Paul Ganster, Director

The Institute for Regional Studies of the Californias (IRSC) provides San Diego State University with a forum for the investigation, discussion, and dissemination of information about the United StatesMexican border region. Although the institute focuses on the border region of California, Baja California, the United States, and Mexico, it is also concerned with important issues of border regions elsewhere in the world.

Created in 1983, the institute has undertaken multidisciplinary applied research projects on important regional concerns including transborder environmental issues, policy perspectives of the Califor-nia-Mexico relationship, quality of life, and sustainable development. IRSC also plays an active role in Mexico-related professional organizations and is frequently consulted on transborder issues by the media, nongovernmental organizations, the public sector, and other border stakeholders.

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 universities and institutions.

IRSC has an ongoing publications program that includes books, monographs, and shorter items. Many titles are co-published with SDSU Press.

IRSC conducts applied research projects on border environmental issues and policy, regional economic issues, and transborder planning issues. The institute serves as the SDSU link to the Southwest Consortium for Environmental Research and Policy, a congressionally established consortium of Mexican and U.S. universities for research and policy studies on border environmental issues. For more information, please visit the Web site at http://irsc.sdsu.edu.

## Social Science Research Laboratory (SSRL) Douglas S. Coe, Director

The Social Science Research Laboratory (SSRL) was founded in 1974 to support academic computing and social research within the College of Arts and Letters (CAL), the university and the regional community. SSRL is organized into six units: Instructional Services, Research Services, Data Services, Web Services, Systems Support Group, and CAL Help Desk. The department employs twelve full-time
staff complemented by other employees including lecturers, computer lab consultants, research assistants, and data collection specialists. The SSRL is located in Professional Studies and Fine Arts, Room 140 or at http://ssrl.sdsu.edu.

Instructional Services develops programs to assimilate technological resources into the curriculum and to support academic computing among students and faculty. This is accomplished through four programs: (1) one-unit social science courses on the use of statistical, database, spreadsheet, and presentation software; (2) workshops on the use of selected software applications; (3) class presentations requested by faculty to support computer-related instructional assignments; and (4) individual consultation for students using SSRL's openaccess computing facilities.

Research Services offers a complete range of public opinion polling and survey research services, including instrument design, data collection, data reduction, graphic presentation of data, statistical analysis, and data archiving. The section maintains an 18 station com-puter-assisted-telephone-interviewing (CATI) system to support research projects. Undergraduate internships and research assistant positions are available. Typical research clients include government organizations, companies, community groups, SDSU faculty, and SDSU administrators.

Data Services provides support for the use of archived datasets. Sources of archived datasets include: the Inter-University Consortium for Political and Social Research (ICPSR), the Social Science Database Archive (SSDBA), the U.S. Census, Field Institute California Polls, the Roper Center for Public Opinion Research, and LexisNexis Academic Universe. Assistance includes locating, downloading, installing, subsetting datasets, and providing class presentations for instructional or research applications.

Web Services provides support for Web site design for departments and faculty including information architecture, visual design, usability testing, compliance with accessibility standards, and site maintenance.

Systems Support Group provides technical support for College of Arts and Letters computing systems. Services include managing computer classrooms, network administration, installing operating systems, software applications, virus recovery, and procurement consultation.

CAL Help Desk serves as the initial point of entry and triage for College of Arts and Letters faculty and staff who require assistance with computer-related problems. An extensive software coaching program for individual faculty and staff is offered.

# College of Business Administration 

The College of Business Administration and the School of Accountancy are accredited by AACSB International-The Association to Advance Collegiate Schools of Business-at both the undergraduate and graduate levels. Several College of Business Administration programs are registered with the Certified Financial Planner Board of Standards. The College of Business Administration Web site is at http://www.sdsu.edu/business.

## Administration

Dean: Gail K. Naughton
Associate Dean for Academic Affairs: James R. Lackritz
Associate Dean and Director of
Graduate Program: Kenneth E. Marino
Assistant Dean for Student Affairs and Director of the Business
Advising Center: Sandra L. Williams
Director of Communications: Randy Carmical
Director of Executive and Specialized Programs: Karen M. Courtney Director of Resource Management: Debra Tomic
Director of Undergraduate Program: Kathleen A. Krentler

## Mission of the College of Business Administration

The mission of the College of Business Administration is to create a learning environment which fosters excellence in business education through innovative programs, applied learning, research, and collaboration with the community.

## 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 objectives: (1) academic programs that prepare students with the knowledge and skills needed to contribute to business and society as managers and professionals; (2) cooperation and mutual responsibility among faculty, staff, and students for learning and research; (3) opportunities for students to integrate their academic work with experience in the community; (4) faculty who are active as teachers and scholars and who share their professional expertise with students and the community; (5) staff members who maintain and improve their technical and interpersonal skills in order to contribute to the development and success of College programs; (6) programs that reflect the international and entrepreneurial character of our region; (7) physical and technical facilities that support program requirements; and (8) an environment that offers opportunities for students, faculty, and staff of diverse backgrounds to pursue their educational and career goals.

## 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., M.B.A./J.D.; jointly with the California Western School of Law), Latin American Studies (M.B.A./M.A.; jointly with the College of Arts and Letters).

## Bachelor's Degrees

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

## Minors

Accounting, Business Administration, Finance, Information Systems, Management, Marketing, 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.

## Research Centers and Institutes

## Center for Community Economic Development (CCED) Linda M. Guzzo, Director

Community economic development (CED) is an innovative and practical approach to helping communities and neighborhoods prosper through the use of business, economic, and leadership skills. CED is a systematic and planned intervention that is intended to promote economic self-reliance for communities and their residents.

The Center for Community Economic Development (CCED) was established in 2000 and culminated the offering of a certificate program in community economic development that began in 1995. The CED program is one of a few in the United States that offers a comprehensive and practical curriculum in community economic development.

The center offers a non credit certificate program in community economic development which consists of nine business courses: Introduction to CED, Accounting, Consensus Community Organizing, Financial Management, Legal Structures, Marketing Strategies, Organizational Management, Real Estate and Land Development, and Small Business Development; a series of class related seminars; and a community project. Classes are held on alternate Saturdays from 10 a.m. to 4 p.m. The center also offers consulting and technical assistance to educational institutions, businesses, local government, and community and civic organizations, in addition to a variety of seminars and workshops on topics related to community development and to community economic development.

The mission of the certificate program is to produce technically competent and community minded economic development professionals, and to produce graduates committed to the principle that residents of neighborhoods and communities should play a major role in the development of their areas. The Web site is http://www.sdsuced.org/.

## Corporate Governance Institute (CGI) <br> Craig P. Dunn, Executive Director

The Corporate Governance Institute (CGI) is an education and research center dedicated to the study and application of responsible corporate governance principles. Founded in 1998, the mission of the CGI is to enhance the skills of organizational directors and senior executives in the private and public sectors through creating and delivering initiatives related to a) director and executive development, b) research, and c) curriculum innovation. CGI programs focus on identifying "best practices" in all aspects of corporate governance. All CGI initiatives are guided by the principle that corporate leaders hold
a primary duty to insure the financial viability of the organizations they manage, while at the same time taking adequate account of the emerging reality that all institutions, including corporations, are imbedded within communities that justifiably deserve their attention.

CGI staff can be reached by telephone at 619-594-0823, or by email at corporate.governance@sdsu.edu. The CGI Web site is http://www.corporategovernance.cc.

## Entrepreneurial Management Center (EMC)

## Sanford B. Ehrlich, QUALCOMM Executive Director Richard D. Brooks, Director of Communications Alex F. DeNoble, Director of Academic Programs

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

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

The EMC sponsors Venture Challenge, an annual international student business plan competition that provides students with an opportunity to present their business ideas to a distinguished panel of judges. The EMC also offers students numerous internship and consulting opportunities with growth-oriented companies and non-profit organizations, and positions within its Center for Commercialization of Advanced Technology (CCAT). The EMC is located in Gateway 1502, 619-594-2781; FAX 619-594-8879; http://www.sdsu.edu/emc.

## Center for Hospitality and Tourism Research Carl Winston, Director

The Center for Hospitality and Tourism Research represents a joint venture equally supported by the College of Business Administration and the College of Professional Studies and Fine Arts. The center is an education and research center dedicated to the study and application of business and professional principles in the broad field of hospitality and tourism. The mission of the center is to enhance the skills and knowledge of professionals and students in the field of hospitality and tourism management through the creation and delivery of initiatives in executive development, research, and curriculum innovation.

Programs associated with the center focus on identifying "best practices" in all aspects of hospitality and tourism such as hotel operations, restaurant operations, global tourism, and events, conventions and attractions management. The center's mission is pursued in multiple venues, including private, public, and not-for-profit agencies. Our vision is to become the leading center for hospitality and tourism management education in Southern California and a prominent national and international resource for questions related to education in hospitality and tourism. The center actively seeks to support SDSU, the College of Business Administration, the College of Professional Studies and Fine Arts, and members of the local and national community in matters related to hospitality and tourism. The center is located in PSFA 436, 619-594-4964; http://www.sdsu.edu/business/htm.

## Center for International Business Education and Research (CIBER) <br> Mark J. Ballam, Managing Director

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The CIBER Web site is http://www.sdsu.edu/ciber.

## International Institute for the Commercialization of Biomedical Innovation (IICBI)

## Gail K. Naughton, Director

The International Institute for the Commercialization of Biomedical Innovation (IICBI) seeks to bring the world's biomedical innovations to the marketplace. The goal of the IICBI is to work with leading universities to expedite biomedical concepts into development; and then move them forward into the marketplace. The IICBI works with national as well as international universities to develop and bring new medical devices, apparatuses, pharmaceuticals, and treatments to the marketplace. It is partnered with other universities to identify and in-license technologies. Students, faculty, and key life science business leaders work together to develop: (1) a business plan; (2) an IP strategy; (3) a patent for a disclosure, regulatory plan; (4) a competitive strategy for the technology; and (5) identify and pursue commercial partners to develop and market the end product. The mission of the IICBI is to provide the expertise and infrastructures to support the development and commercialization of biomedical innovation from universities across the globe that currently lack the ability to bridge the gap between concept generation and product launch.

## International Technology and Trade Network (ITTN) Marc Siegel, Director

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network that will take advantage of the latest Internet, information, and telecommunications technologies to provide business-to-business and organizational links. We will use these technologies to share information as well as provide educational, training and distance learning opportunities to participating members of the network.

## Center for the Study of Personal Financial Planning (CSPFP) <br> Thomas Warschauer, Director

The center encourages research for individual and family finance to further the ability of financial counselors and planners to provide advice that aids individual and families in achieving financial objectives.

The theoretical base of decision-making criteria for personal financial decisions is weak and sometimes non-existent. In many cases, individuals, families, and their financial planners and advisers make important decisions that have little or no theoretical foundation. The finance discipline - as taught at the university-level - has grown around corporate decision-making, not decisions of the household. The development of an emerging financial planning profession has made this lack of theoretical basis evident. The center is founded on the belief that there is a significant need for scholars to share their ideas and mutually develop their research thoughts, for financial reporters to bring the practical application of this work to the attention of professionals and the public, and for students engaged in the study of financial planning to be aware of the latest findings of researchers engaged in this field.

The center is involved in the development of a national web-based research database and a national graduate student financial planning competition. The financial planning web-based bibliography is aimed at three groups of users: journalists, researchers, and students. Summaries of recent research in financial planning concepts is available for journalists to help disseminate research findings to the popular press. Researchers can find background articles listed by financial planning topical areas. Faculty can determine state of the art research on various topics by sharing research interests and/or discussion drafts. And nationally, students can access research to aid in their academic understanding of financial planning issues.

The center can be reached at 619-594-4040 or e-mail tom.warschauer@sdsu.edu.

## Real Estate and Land Use Institute (RELUI) James L. Short and Andrew Q. Do, Co-Directors

Established in 1983, the Real Estate and Land Use Institute (RELUI) is the first systemwide research-oriented institute of its kind in the 23-campus California State University system. The San Diego regional office of RELUI is located in the College of Business Administration.

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

At SDSU, 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. For more information, call 619-594-2301. E-mail: relui@mail.sdsu.edu. The Web site is http://arweb.sdsu.edu/es/admissions/ab/realestate.htm.

## Strategic Technologies and Research (STAR) Center for Electronic Business <br> Annette Easton and George Easton, Co-Directors

The Internet is reshaping business and the future of business is electronic business (e-Business). The Strategic Technologies and Research (STAR) Center for Electronic Business is dedicated to exploring the strategies, technologies, and business models associated with conducting business electronically.

The interdisciplinary STAR Center engages in activities that focus on information technologies, management strategies, markets and operational issues of electronic business. The goals of the center include creation and implementation of educational programs in electronic business; creation of research and professional development opportunities with an electronic business focus; creation of opportunities for professional and community service that focus on electronic business; creation of effective development strategies to ensure long term viability; and creation of effective methods of information sharing and outreach. The STAR Center provides the framework for the College of Business Administration to manage the curriculum, grow the research programs, and harvest opportunities provided by this new discipline.

The STAR Center is located in the College of Business Administration's electronic boardroom (SS-2601). STAR Center staff can be reached at 619-594-2759, via e-mail at starcenter@sdsu.edu or at http://starcenter.sdsu.edu.

## College of Education

## Administration

Dean: Lionel R. Meno

Associate Dean: Margie K. Kitano
Associate Dean for Faculty Development and Research: Rena B. Lewis
Assistant Dean for Student Affairs: Patricia Lozada-Santone
Doctoral Programs: Rafaela M. Santa Cruz, Cheryl L. Mason, Margaret R. Basom
Director of Credentials Processing Center: Helen Duffy
Assistant Director of Development: Elissa Oransky
Manager of Budget and Analysis: Francis Fox
Coordinator of the Office of Advising and
Recruitment: Sylvia Hernandez

## General Information

The mission of the College of Education is broad and multidimensional. The college prepares teachers, administrators, instructional designers, resource specialists, and support personnel for various educational settings; provides continuing professional educational opportunities for education personnel; continually assesses the quality and appropriateness of all education activities; contributes to the knowledge base of both educational theory and practice through research and scholarship; provides appropriate public service/technical assistance to individuals and agencies locally, regionally, nationally, and internationally; and contributes to the general intellectual climate of the university community. The college has an ongoing commitment to programs serving culturally diverse communities and bilingual individuals.

The College of Education is organized into seven academic units including the School of Teacher Education and the following departments: Administration, Rehabilitation and Postsecondary Education; Counseling and School Psychology; Educational Leadership; 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. The Educational Specialist degree is offered in school psychology. A Ph.D. program in education is offered jointly with Claremont Graduate University. This unique program features a multicultural education emphasis. A Ph.D. program in mathematics and science education is offered jointly with the College of Sciences and the University of California, San Diego. An Ed.D. program is offered jointly with the University of San Diego in the following fields: Educational Technology and Teaching and Learning. An Ed.D. program is offered jointly with the University of California, San Diego in Educational Leadership. 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

Ph.D. in Education
Ph.D. in Mathematics and Science Education
Ed.D. in the following fields:
Educational Leadership,
Educational Technology,
Teaching and Learning

## Educational Specialist

Ed.S. in School Psychology

Master's Degrees<br>Counseling (M.S.), Education (M.A.), Rehabilitation Counseling (M.S.).

Bachelor's Degree<br>Vocational Education (B.V.E.)<br>Minor<br>Educational Technology

## Teaching and Service Credentials* <br> Credential Program <br> School Service Authorized

1. Multiple Subject: parttime, full-time, and internship programs.
2. Multiple Subject Bilingual Cross-Cultural Language and Academic Development (BCLAD) emphasis: Spanish
3. Single Subject
4. Single Subject Bilingual and Academic Development (BCLAD) emphasis: Spanish

Teach in self-contained classrooms and provide Specially Designed Academic Instruction in English (SDAIE) and English Language Development (ELD), kindergarten through twelfth grade.
Teach in self-contained classrooms and in primary language and English, English Language Development (ELD), and Specially Designed Academic Instruction in English (SDAIE).
Teach single subject area in grades K-12 and provide Specially Designed Academic Instruction in English (SDAIE) and English Language Development (ELD).
Teach single subject area in primary language and English in grades K-12 and provide Specially Designed Academic Instruction in English (SDAIE) and English Language Development (ELD).

[^1]
## Specialist Credentials

Reading/Language Arts
Resource Specialist Certificate of Competence

Special Education:
Education Specialist for the Deaf and Hard of Hearing, Levels I and II (School of Speech, Language, and Hearing Sciences)
Early Childhood Special Education, Levels I and II
Early Childhood Special Education, Internship Credential
Mild/Moderate Disabilities, Levels I and II
Mild/Moderate Disabilities, Internship Credential
Moderate/Severe Disabilities, Levels I and II
Moderate/Severe Disabilities, Internship Credential
Physical and Health Impairments, Level I

## Service Credentials

Administrative Services
Clinical-Rehabilitative Services
(School of Speech, Language, and Hearing Sciences)
Pupil Personnel Services:
Child Welfare and Attendance (School of Social Work)
School Counseling (Department of Counseling and School Psychology)
School Psychology (Department of Counseling and School Psychology)
School Psychology, Internship Credential (Department of Counseling and School Psychology)
School Social Work (School of Social Work)
School Nurse Services (School of Nursing)

## Certificate Programs

Cross-Cultural Language and Academic Development (CLAD or BCLAD), Community College Teaching, Cultural and Community Trauma Studies (available through Extension only), Developing Gifted Potential, Distance Education, Early Childhood Special Education, Instructional Software Design, Instructional Technology, Mathematics Specialist Reading Certificate, Rehabilitation Administration, Supported Employment and Transition Specialist, Workforce Education and Lifelong Learning.

## Research Centers and Institutes

## Center for Counseling and School Psychology Valerie Cook-Morales, Director

The Center for Counseling and School Psychology is a unit within the College of Education designed to provide support for activities such as (1) securing and administering grants and other support for research and development in counseling and school psychology, (2) encouraging cooperation with faculty members from other relevant disciplines such as anthropology, economics, psychology, social work, sociology, and Counseling and Psychological Services, 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. The Web site is http://www.psychology.sdsu.edu/advising/ counseling\%20psycholoy.htm.

## Center for Educational Leadership, Innovation, and Policy

## Marilee Bresciani and Stephen F. Barnes, Co-Directors

The Center for Educational Leadership, Innovation, and Policy examines issues that affect policies and practices of educational institutions, including their implications for leadership, planning, innovation, and organizational development. The center engages in research, development, and dissemination activities that focus on a few critical educational issues. As a result of its policy analysis and research, the center develops plans and programs which enhance organizational capacity to respond to the challenges and opportunities and which lead to the improvement of practice.

## Center for Equity and Biliteracy Education Research (CEBER)

Alberto M. Ochoa and Alberto Rodriguez, Co-Directors

The Center for Equity and Biliteracy Education Research (CEBER) examines structural, social, and linguistic conditions that hinder or promote the advancement of democratic schooling and educational social justice for all students. CEBER aims to bring together scholars and education and community leaders to assist in the advancement of knowledge regarding biliteracy and equity issues. Six components guide the work of CEBER: professional development and biliteracy teacher education, equity and biliteracy research on democratic schooling, international professional development of school personnel, biliteracy capacity from kindergarten to higher education, parental leadership in biliteracy, and dissemination of educational equity and biliteracy research.

## Interwork Institute

Fred R. McFarlane, Director
The institute's efforts focus on promoting the integration of all individuals, including those with disabilities, into all aspects of education, work, family, and community life. The institute conducts research, training, and education using a variety of strategies including distance learning technologies. Current efforts include universal design in all aspects of our community. Educational and research efforts involve organizations and individuals in all states, tribal communities, the Pacific Basin, Asia, Mexico, South America, and Europe. Faculty and staff associated with the institute are uniquely prepared to promote the meaningful participation and productivity of each member of the community. The institute's mission is supported through local, state, federal, and international organizations. The institute's facilities are located at 3590 Camino del Rio North in Mission Valley. The Web site is http://interwork.sdsu.edu/.

## Center for Learning, Instruction, and Performance Technologies Donn C. Ritchie, Director

The center's faculty and staff conduct research on the design and use of technology-based systems for enhancing human learning and performance, monitor trends in advanced applications of educational technology and allied disciplines, and evaluate the effectiveness and usability of educational products and services.

The center consults with corporations, agencies, and SDSU affiliates on the design of products for education and training, arranges for on-site and electronic delivery of professional development courses and seminars by the nationally recognized faculty of SDSU Department of Educational Technology, and coordinates fieldwork and internship opportunities for advanced graduate students.

## Pre-College Institute (PCI)

## Cynthia D. Park, Executive Director

The faculty and staff of the Pre-College Institute (PCI), an institute to promote the advancement of pre-college education, implements programs to enhance teaching and learning in multicultural settings and studies their outcomes. The institute, operating from the University's historic strength in teacher education and its proximity to Mexico, delivers services geared towards promoting educational advancement among pre-college students from low-income families. The institute also supports continuous professional enhancement of teachers from all cultural backgrounds and conducts systematic research and evaluation of the programs that deliver these services.

The institute offers services through five federally funded TRIO programs and partnerships with the Colleges of Science, Engineering, and Health and Human Services, as well as the Division of Undergraduate Studies and the Sweetwater Gear Up partnership with Compact for Success. The institute's international branch offers exchange opportunities for university faculty and students to visit and study in other countries. The Web site is http://www-rohan.sdsu.edu/ dept/sdsutrio/.

## Qualcomm Institute for Innovation and Educational Success <br> Lionel R. Meno, Geoffrey W. Chase, David T. Hayhurst, Co-Directors

The Qualcomm Institute for Innovation and Educational Success is a partnership between Qualcomm/SDSU. This partnership was formed to accomplish the following objectives:

- Significantly increase the technology skills of SDSU graduates, thereby generating a more qualified workforce and a betterinformed citizenry.
- Develop an educational system that values, encourages, and rewards creative methods of delivering education, from kindergarten through college graduation.
- Establish the institutional infrastructure at SDSU to support large-scale change and transformation of the education system through innovation, evaluation, and dissemination of effective educational methods.
- Dramatically shift the way education is delivered, from kindergarten through college, with an emphasis on improving technology skills and knowledge.
- Develop cross-curriculum synergies among SDSU academic programs that help teach technology skills to students in all courses of study.
- Develop an effective, sleeves-rolled-up dialogue among Qualcomm, SDSU, and the greater San Diego business and corporate community, with the goal of addressing challenges, identifying opportunities, and generating responsive action.
The institute has the following five components:
- Strategic Initiatives Board to provide oversight to the partnership.
- Improving Student Achievement in Mathematics Program to increase student mathematics performance in public schools.
- Project Lead the Way to increase the number and diversity of qualified students entering the College of Engineering.
- People, Information, Communication, and Technology Program to increase the integration of technology with undergraduate students.
- National Center for Urban Schools Transformation will assist urban public schools to dramatically improve the level of student achievement.


## Center for Social Equity Technical Assistance <br> Ruben W. Espinosa and Alberto M. Ochoa, Co-Directors

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 conducts research in public equity and school finance. The center houses projects funded by federal, state, and private sources. Current projects include the Parent Leadership and the Social Equity project. 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 Laura J. Hall and Minjuan Wang, Co-Directors

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: David T. Hayhurst

Associate Dean: Gordon K. F. Lee
Assistant Dean for Student Affairs: Bruce D. Westermo
Director of Doctoral Programs: Gordon K. F. Lee

## General Information

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

At the undergraduate level, the College of Engineering prescribes certain patterns of its courses, combined with those of other academic divisions of the University, leading to the Bachelor of Science degree in six specific major fields of engineering. At the graduate level, the college offers the Master of Science degree in four of these fields and in bioengineering, a Master of Engineering degree in manufacturing and design, and a doctoral degree in engineering sciences/applied mechanics jointly with the University of California, San Diego.

Consistent with the role and mission of the California State University system, the faculty of the College of Engineering at San Diego State University believes its mission to consist of the following integrated components: To provide students with a quality undergraduate and graduate engineering education; to prepare graduates for professional careers and life-long learning; to promote the creation and dissemination of knowledge; to serve society through professional practice and community outreach; and to act as a catalyst for the technological development of the San Diego region.

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 social facets of our civilization, because 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 apply this knowledge of fundamentals in developing special expertise in their areas of specific interest.

## Accreditation and Academic Association

The College of Engineering is a member of the American Society for Engineering Education. Undergraduate engineering programs in aerospace engineering, civil engineering, computer engineering, electrical engineering, environmental engineering, and mechanical engineering are accredited by the Engineering Accreditation Commission of the American Board for Engineering and Technology. A new program in construction engineering is being developed.

## Registration of Engineers

Professional registration of engineers is required for many fields of practice. Engineering students are encouraged to take the Fundamentals of Engineering examination prior to graduation. Graduation from an accreditation program such as San Diego State University 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

Master of Science (M.S.)
Aerospace Engineering, Bioengineering,
Civil Engineering, Electrical Engineering, Mechanical Engineering

## Master of Engineering (M.Engr.)

Manufacturing and Design

## Bachelor's Degrees

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

## Minor

Engineering

## Certificate Program

Rehabilitation Technology

## Research Centers and Institutes

## Communications Systems and Signal Processing Institute <br> Madhu S. Gupta, Director

This institute is engaged in educational, research, and service activities in the field of electronic communication systems, with an emphasis on radio frequency and digital signal processing aspects. Faculty, students, and industrial partners collaborate to advance the state-of-the-art in the institute's core areas of expertise, such as RF devices and integrated circuits, modems, receivers, transmitters, synthesizers, A-D and D-A converters, digital signal processing algorithms and hardware, antenna, and communication networks. Specific activities include research and design projects; development of products, software, algorithms, and techniques; and training programs including short courses.

## Concrete Research Institute <br> M. Ziad Bayasi, Director

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

## Energy Engineering Institute Asfaw Beyene, 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. The Web site is http://www.engineering.sdsu.edu/energy.html.

## Qualcomm Institute for Innovation and Educational Success <br> David T. Hayhurst, Geoffrey W. Chase, Lionel R. Meno, Co-Directors

The Qualcomm Institute for Innovation and Educational Success is a partnership between Qualcomm/SDSU. This partnership was formed to accomplish the following objectives:

- Significantly increase the technology skills of SDSU graduates, thereby generating a more qualified workforce and a betterinformed citizenry.
- Develop an educational system that values, encourages, and rewards creative methods of delivering education, from kindergarten through college graduation.
- Establish the institutional infrastructure at SDSU to support large-scale change and transformation of the education system through innovation, evaluation, and dissemination of effective educational methods.
- Dramatically shift the way education is delivered, from kindergarten through college, with an emphasis on improving technology skills and knowledge.
- Develop cross-curriculum synergies among SDSU academic programs that help teach technology skills to students in all courses of study.
- Develop an effective, sleeves-rolled-up dialogue among Qualcomm, SDSU, and the greater San Diego business and corporate community, with the goal of addressing challenges, identifying opportunities, and generating responsive action.
The institute has the following five components:
- Strategic Initiatives Board to provide oversight to the partnership.
- Improving Student Achievement in Mathematics Program to increase student mathematics performance in public schools.
- Project Lead the Way to increase the number and diversity of qualified students entering the College of Engineering.
- People, Information, Communication, and Technology Program to increase the integration of technology with undergraduate students.
- National Center for Urban Schools Transformation will assist urban public schools to dramatically improve the level of student achievement.


## San Diego Center for Materials Research Ronald A. Kline, Director

Materials research, by its fundamental nature, is interdisciplinary. It directly involves expertise across departmental and college boundaries. The physical sciences (chemistry, physics), life sciences (biology, including biomaterials/biomechanics) and engineering (aerospace, biomedical, chemical, civil, electrical, mechanical, and nuclear). At SDSU, we have ongoing activities in a variety of important new technological areas, including smart materials/structures, high temperature materials, biomaterials, magnetorheological fluids, sensors, and coatings. The Center for Materials Research develops and promotes the interdisciplinary relationships needed to advance the state-of-the-art in materials research at the university, regional, national, and international levels. The Web site is http:// sdcmr.sdsu.edu/.

# College of Health and Human Services 

## Administration

Dean: Marilyn Newhoff
Associate Dean: Olita D. Harris
Associate Dean: Stephen J. Williams
Assistant Dean for Student Affairs: Richard C. Reed
Director of Development: Jesse Brooks

## 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 areas: the Department of Gerontology, School of Nursing, School of Social Work, School of Speech, Language, and Hearing Sciences, 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 leading to greater expertise for gathering information, planning, and evaluating professional actions. This commitment to students produces alumni who will continue to work effectively with our professional schools and departments so that the well-being of individuals, groups, and communities are both preserved and promoted.

Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, Master of Public Health, Master of Social Work, Ph.D. in Language and Communicative Disorders, Ph.D. in Public Health, and the professional doctorate in Audiology, the Au.D., comprise the degrees 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 Programs<br>Audiology<br>Language and Communicative Disorders<br>Public Health (Epidemiology, Health Behavioral Science)

## Master's Degrees

Gerontology (M.S.), Nursing (M.S.),
Public Health (M.S., M.P.H., M.P.H./M.S.W., M.P.H./M.A.; jointly with the College of Arts and Letters), Social Work (M.S.W., M.S.W./M.P.H., M.S.W./J.D.; jointly with California Western School of Law); Speech, Language, and Hearing Sciences (M.A.)

## Bachelor's Degrees

Health Science (B.S.), Nursing (B.S.),
Social Work (B.A.), Gerontology (B.A.),
Speech, Language, and Hearing Sciences (B.A.).

Minors<br>Gerontology, Health Science, Social Work.<br>\section*{Certificate Programs}<br>Bilingual Speech-Language Pathology, Gerontology, Preventive Medicine Residency.

## Credential Programs

Child Welfare and Attendance Services, Clinical or Rehabilitative Services, Pupil Personnel Services (School Social Work), School Nurse Services.

## Research Centers and Institutes

## Center for Alcohol and Other Drug Studies and Services Anita S. Harbert, Director <br> John D. Clapp, Associate Director

The center was established in 1985 by the School of Social Work as the Center on Substance Abuse. In 2003, the emphasis was changed to research and evaluation, while maintaining its primary service program, a drunk driving education and treatment program. The center is actively engaged in conducting alcohol and other drug research and evaluation projects. Over the past decade, the center has received numerous federal, state, and county grants and contracts and has several ongoing projects including the NIH funded College Party and Bar Environmental Prevention Project and an Evaluation of California's State Prevention Grants. In addition, the center operates the Central District Driving Under the Influence Program, which provides education and counseling services for court-ordered offenders in the central judicial district of San Diego county. The center is located at 6386 Alvarado Road, Suite 224, 619-229-2340. The Central District Driving Under the Influence Program is located at 9245 Sky Park Court, Suite 101, 858-467-6810. The Web site is http:// c2c.sdsu.edu/details.cfm?ID=106\&Option=All.

## University Center on Aging Mario D. Garrett, Director

The Center on Aging is administered by the Department of Gerontology. The center is involved with 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 serves as a central point for the development, dissemination, and analysis of data related to diversity and aging and long-term care. The Web site is http://chhs.sdsu.edu/gero/ facultydetail.php?ID=61.

## Center for Behavioral and Community Health Studies (BACH) John P. Elder, Director <br> Terry L. Conway, Linda C. Gallo, Joni A. Mayer, and Gregory A. Talavera, Associate Directors

The Center for Behavioral and Community Health Studies (BACH) is housed at 9245 Skypark Court, Suite 221, San Diego, CA 92113. 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. The center has seven investigators from three different colleges. The interdisciplinary center encourages participation from all of the university colleges and departments. Currently, active investigators come from the Departments of Exercise and Nutritional Sciences, Psychology, and the Graduate School of Public Health. Current center projects involve collaboration between scientists and clinicians 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 National Cancer Institute, National Heart, Lung and Blood Institute, the State of California Department of Health Services, and the University of California Tobacco Related Disease Research Program.

The center provides important research experiences to diverse students who intend to pursue related careers and offers opportunities for project staff and graduate students to participate in community interventions. The Web site is http://behavioralhealth.sdsu.edu/.

## Center for Behavioral Epidemiology and Community Health <br> Melbourne F. Hovell, Executive Director

Administered through the Graduate School of Public Health, the center was established for the purpose of promoting research to study behavior that prevents or contributes to the cause of disease and injury. Both non-intervention and empirical studies are conducted to determine the factors most responsible for lifestyle practices related to morbidity and mortality. The center focuses on health related behavior - either protective practices or risk practices - and has been concerned with a wide range of public health and medical concerns such as: tobacco prevention in youth; environmental tobacco exposure reduction in children; STDs, AIDS, pregnancy prevention in adolescents, and prevention in women and divorced adults; violence and anger prevention. C-BEACH conducts scientific investigations into the following broad areas: behavioral epidemiology, measurement, and interventions (clinical and community-based). The Web site is http:// www.sci.sdsu.edu/c-beach/.

## California Distance Learning Health Network (CDLHN) Richard M. Gersberg, Principal Investigator Violet Macias, Executive Director

Founded in 1995, the mission of CDLHN is to produce, promote, and provide training and distance education on a variety of public health topics throughout California, the nation, and around the world. CDLHN's goal is to foster collaboration between health organizations and distance learning educators; and to increase access to the most advanced communication technologies available in the world today. CDLHN produces and promotes courses on a variety of public health topics of benefit to the public health workforce, health care workers as well as interested individuals in the general public. Recent productions include Responding to Bioterrorism: How to Set up Mass Vaccination Clinics, and an important and timely production on Pandemic Avian Flu. Productions and program materials are in both English and Spanish. CDLHN has formed strategic local (San Diego County Department of Health Services), state (California Department of Health Services, Immunization Branch), national (Federal Centers for Disease Control) and international partnerships with academic institutions, private organizations, and government agencies. CDLHN is a leader in distance learning efforts and will continue to make learning without limits a reality. The Web site is http://www.cdlhn.com/.

## Communications Clinic for Speech, Language, Hearing Disorders and Deafness

 Jacque Georgeson and Charlotte Lopes, Co-DirectorsAdministered by the School of Speech, Language, and Hearing Sciences, the clinic provides assessment and remediation services for

SDSU students, staff, faculty, and the community. Comprehensive diagnostic and treatment programs are available for children and adults in the areas of 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. The Assistive Device Assessment Program provides language, cognitive, and technical assessments related to augmentative/assistive devices and systems for individuals who have communication disabilities. 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. In addition, the clinic offers opportunities for research, consultation, supervised field internships, continuing education, and other service activities. The clinic is located at 6330 Alvarado Court, Suite 100, San Diego, CA 92120-4917, 619-594-6477.

## Consensus Organizing Center <br> Michael Eichler, Director

The Consensus Organizing Center is administered through the School of Social Work. The center's mission is to educate and train a new generation of social workers in community building techniques in order to make them effective catalysts for civic engagement and social change. Through school based programs and community interventions, the center has created an environment for the teaching of consensus organizing skills to social workers, high school students, foster youth, and community leaders. Specific activities include developing a fellowship program for high school students and provide employment opportunities for undergraduate and graduate students. The Web site for the center is http://www-rohan.sdsu.edu/~consensu/. The center telephone number is 619-594-4813.

## Heart Institute

## Christopher C. Glembotski, Director

The Heart Institute is sponsored by the College of Health and Human Services and the College of Sciences. The goals of the institute are to enhance basic and clinical research in the cardiovascular sciences, to foster undergraduate and graduate education in cardiovascular physiology and medicine, and to provide a community outreach service focused at heightening the awareness of cardiovascular disease and its prevention in the San Diego region surrounding SDSU. The institute is comprised of faculty members representing four different colleges at SDSU, as well as physicians and scientists from local hospitals and clinical research centers. Importantly, the institute also sponsors SDSU undergraduate and graduate student memberships, which strengthens the involvement of students in all aspects of Heart Institute activities. The unusual blend of talent and expertise that comprise the institute membership results in an interdisciplinary approach to cardiovascular research, education and community outreach that is unique to the Heart Institute. The institute sponsors special seminars, on- and off campus, which cover a wide range of topics in the field, and provides funding for the support of graduate students who are involved in cardiovascular research at SDSU. Areas of focus for the institute include studies of the molecular basis of cardiovascular disease, establishment of unique approaches for the early detection and prevention of cardiovascular disease, and the promotion of cardiovascular health in San Diego area K-12 schools. An important feature of these efforts that distinguishes the Heart Institute is the central role that SDSU students play in each of these areas. Funding for Heart Institute activities comes from a variety of sources, including the National Institutes of Health, the American Heart Association, the Muscular Dystrophy Association, the Rees-Stealy Research Foundation, and several San Diego-based biotechnology companies. For more information contact the Heart Institute office at 619-594-5504. The Web site is http:// www.bio.sdsu.edu/heart/sdsuhihome.htm.

## Center for Injury Prevention and Research Mario D. Garrett, Director

Administered through the Department of Gerontology, the purpose of the center is to prevent intentional and unintentional injury among all segments of the community and in all age ranges, from birth to old age, but with special emphasis on the elderly. The center accomplishes this purpose by: 1) Coordinating a multidisciplinary group of professionals dedicated to injury control and prevention including traffic safety; 2) Assisting in the coordination of existing local and state resources for injury intervention and prevention; 3) Conducting ongoing injury data surveillance; 4) Supporting appropriate injury related intervention and prevention strategies aimed at individual and community change; 5) Stimulating injury intervention and prevention based research and program development; 6) Disseminating the results of injury intervention and prevention research activity generated by the center; and 7) Providing technical assistance, training, and continuing education to appropriate target audiences in California and outside of California, as requested. Specifically, the center will identify injury problems and gain extensive community information which will be used to develop strategic plans to control and prevent injuries. In addition, the center will define the changes required to reach desired solutions. A systems approach will be used to address these issues as such an approach also recognizes the comprehensive nature of injury problems and the need to develop equally comprehensive solution sets. The Web site is http://www.cippp.org/.

## Center for Injury Prevention Policy and Practice David W. Lawrence, Director

The Center for Injury Prevention Policy and Practice was founded in 1986 and is administered through the Graduate School of Public Health. Its mission is to reduce death and disability from injuries by fostering effective injury prevention programs, policies and systems. Current programs: 1) SafetyLit, a Web-based research literature archive and weekly summary of recent injury prevention research, published in collaboration with the World Health Organization. 2) The California Older Adults Traffic Safety Project involves coordinating a multi-agency, public-private task force charged with developing and implementing a wide range of traffic safety policies. Related activities include developing professional education programs for physicians, nurses, and occupational therapists. 3) The California Maternal and Child Health Injury Prevention Program provides in-depth technical assistance to state and local MCH agencies. 4) The California Conference on Childhood Injury Control is an annual four-day meeting where 60 faculty provide training to approximately 400 people each year. 5) The California Kids Plates Program provides more than \$300,000 annually in grants to regional, county, and local injury prevention programs. 6) The Children's Safety Network Economics and Data Analysis Resource Center serves state health and education agencies to determine the incidence, risk factors, and costs of unintentional injuries and violence to children and adolescents.

Major funding for the Center is through long-term contracts with the US DHHS Health Resources and Services Administration, the California Department of Health and Human Services, and the California Office of Traffic Safety. For additional information, contact the director at david.lawrence@sdsu.edu, 619-594-1994. The Web site is http:// www.cippp.org/.

## June Burnett Institute for Children, Youth, and Families John Wedemeyer, Executive Director

The June Burnett Institute was created in 1985 at the San Diego State University Research Foundation from a $\$ 1.5$ million bequest from the estate of June Estelle Burnett. The mission of the institute is to develop innovative programs for children, youth, and families that blend service, training, and research. It 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. The institute fosters cooperation and collaboration through interdisciplinary/interprofessional approaches that promote the wellbeing of children, youth, and families through prevention, intervention, and volunteer-based services. An advisory board composed of SDSU faculty and community members directs the activities of the institute in cooperation with its director and a staff of approximately 100. The institute has two major program divisions that include the San Diego Choice Program and the California PARENT Center. The institute is located at 6310 Alvarado Court, San Diego, CA 92120, 619-594-4756, FAX: 619-287-6756. The Web site is http://www.foundation.sdsu.edu/jbi/.

San Diego Choice Program - The institute, in cooperation with the San Diego Juvenile Court and the County of San Diego, coordinates the San Diego Choice Program which serves approximately 800 court-involved delinquent youth annually that are referred by the County Probation Department and the County Health and Human Services Agency. The San Diego Choice Program is modeled after the Choice Program developed by the Shriver Center at the University of Maryland. The program currently maintains offices that serve most areas of San Diego County emphasizing intensive case contact services and services for children reentering foster care. The San Diego Choice Program also provides parenting workshops focusing on raising high-risk teens.

The California PARENT Center serves as a hub for strong outreach to parents through contacts with parent groups, parent centers, parent advocates, and educators across the state. The center's "Cyber Center" provides easily accessible resources through an extensive Web site at http://parent.sdsu.edu and toll free Parent Warm Line 619-594-3349; in other areas of California 877-9PARENT. Staffed in seven languages daily from Noon to 2:00 p.m., the Warm Line makes available a group of multilingual parents who can provide specific "how-to's" for parents or educators who wish to build effective parent programs at the preschool, elementary, middle school or high school levels. The center currently combines the efforts of skilled service staff, community-based agencies, and volunteers to promote three "best practice" parent training models: Families and Schools Together (FAST), the Home/School Partnership, and the HIPPY program (Home Instruction for Parents of Preschool Youngsters). A statewide training program for parent advocates is being developed through an agreement with three collaborative, direct service parent programs. It is being expanded to new sites through subcontracts with the Homey's Youth Foundation, Chicano Federation, the Parent Teacher Association, Union of Pan Asian Communities, San Diego Urban League, Parent Institute for Quality Education, San Diego Unified School District, the San Diego Unified PTA council, and the Alliance for Children and Families.

Support for SDSU Faculty - The Burnett Institute has sponsored a range of support programs for SDSU faculty including: the Burnett Institute Mini-Grant Program, 1986-1992, and the June Burnett Institute Faculty Fellows Program, 1997-2002. The institute board is now reviewing these prior programs to identify innovative new ways to support faculty.

## Institute for Nursing Research Gwenievere W. Anderson, 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 the dissemination of research findings.

## Academy for Professional Excellence <br> Anita S. Harbert, Director <br> Donald E. Dudley, Co-Director

The Academy for Professional Excellence, administered through the School of Social Work, was established in 1996 with the mission to provide quality training and organizational support to health and human services agencies in the Southern California Region including the counties of Imperial, Los Angeles, Orange, Riverside, San Bernards, San Diego, Santa Barbara, and Ventura. The goal of the center is to make university faculty and staff available to public and private social services agencies in the region by providing expertise and technical assistance in curriculum development, in-service training, organizational development, evaluation, and research. The academy develops high quality competency based curriculum on select topics for social services agencies in the region; provides quality training to service providers and administrators employed in social services agencies; engages in research and evaluation to improve the quality, accountability and responsiveness of human service agencies; and, develops highly competent executives in the Southern California region who will have the skills, knowledge, and experience to effectively guide organizational change and development.

The academy has extensive experience in managing contracts with multiple partners and organizations/agencies, providing specialized services, including: curriculum development, multi-disciplinary competency-based trainings, workforce analysis, staff retention consultation, research, organizational development and organizational needs assessments, technical assistance and evaluation. Funding sources are grants and contracts from federal, state, and county government agencies as well as private non-for-profit agencies. The academy is located at 6505 Alvarado Road, Suite 107; 619-594-3546; http://pcwta.sdsu.edu.

## Institute for Public Health Suzanne P. Lindsay, Executive Director Robert L. Seidman, Deputy Director

Administered through the Graduate School of Public Health, the mission of the institute is to serve as a vehicle for the development and support of functional linkages between the SDSU Graduate School of Public Health, local public health agencies, and private organizations
in the San Diego community and neighboring areas, including Mexico. These linkages expand the availability of university-based public health expertise, research and information in the areas of biostatistics, environmental health, epidemiology, health services administration, health promotion, industrial hygiene, maternal and child health, occupational health, and toxicology. Specific activities include collaborative research, technical assistance, program evaluation, consultation, continuing education and professional development, student field placement, faculty/practitioner exchange, information dissemination, and various service activities. The institute serves to bridge public health academics and practice by facilitating meaningful partnerships between faculty, students, and local practitioners. The Web site for the institute is http://iph.sdsu.edu/.

## Social Policy Institute

## Terry E. Carrilio, Coordinator

Administered through the School of Social Work, the mission of the institute is to assist local, state, public, and private sector leaders in the development of policies and programs that better meet the needs of the people of San Diego County and the State of California. The Social Policy Institute is dedicated to helping to create quality human service programs, with a focus upon prevention and early intervention for vulnerable individuals and families. The institute is engaged in examining health and human services issues through conducting research and program evaluations and through reviewing existing policy and academic literature. This information is shared with social services staff and leadership, community leaders, and the professional community for the purpose of enhancing services for individuals and families, and participating in the development of just social policies. The Social Policy Institute has recently developed a book and CD-ROM for the purpose of guiding home visiting and family support efforts with vulnerable families, and has developed software to assist social service agencies in managing quality and measuring outcomes.

The SPI Web site is located at http://www.sdsu-spi.org/. Dr. Carrilio can be reached at 619-594-0780.

# College of Professional Studies and Fine Arts 

## Administration

Dean: Joyce M. Gattas
Associate Dean: Kathryn J. LaMaster
Associate Dean: Donald R. Martin
Assistant Dean for Student Affairs: Randi E. McKenzie
Director of Resource Management: Sue Kasuyama
Director of Special Projects: Michele Schlecht
Director of Student Services and
Communications Manager: Sonia Wright

## General Information

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

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

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

## Curricula Offered

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

## Master's Degrees

Art (M.A., M.F.A.), Child Development (M.S.), City Planning (M.C.P.), Communication (M.A.), Criminal Justice and Criminology (M.S.; jointly with the College of Arts and Letters), Exercise Physiology (M.S.), Kinesiology (M.A.), Music (M.A., M.M.), Nutritional Sciences (M.S.), Nutritional Science and Exercise Physiology (M.S./M.S.), Public Administration (M.P.A.), Television, Film and New Media Production (M.A.), Theatre Arts (M.A., M.F.A.).

## Bachelor's Degrees

Art (B.A.), Child Development (B.S.), Communication (B.A.), Criminal Justice Administration (B.S.), Dance (B.A., B.F.A.), Foods and Nutrition (B.S.); Hospitality and Tourism Management (B.S.; jointly with the College of Business Administration), International Security and Conflict Resolution (B.A.; jointly with the College of Arts and Letters and the College of Sciences), Journalism (B.A.), Kinesiology (B.S.), Music (B.A., B.M.), Public Administration (B.A.), Recreation Administration (B.S.), Television, Film and New Media Production (B.S.), Theatre Arts (B.A.), Urban Studies (B.A.).

## Minors

Advertising, Aerospace Studies, Art, Art History, Child Development, Communication, Dance, International Security and Conflict Resolution (jointly with the College of Arts and Letters and the College of Sciences), Journalism, Media Arts and Technology, Military Science, Music, Naval Science, Public Administration, Public Relations, Recreation, Television, Film and New Media, Theatre Arts.

## Military Curricula

Aerospace Studies, Military Science, Naval Science

## Certificate Programs

Artist Diploma, Family Life Education, Fire Protection Administration (available through Extension only), Public Administration (available at Imperial Valley Campus only), Transborder Public Administration and Governance (available through Extension only)

## Research Centers and Institutes

## Center for Hospitality and Tourism Research Carl Winston, Director

The Center for Hospitality and Tourism Research represents a joint venture equally supported by the College of Professional Studies and Fine Arts and the College of Business Administration. The center is an education and research center dedicated to the study and application of business and professional principles in the broad field of hospitality and tourism. The mission of the center is to enhance the skills and knowledge of professionals and students in the field of hospitality and tourism management through the creation and delivery of initiatives in executive development, research, and curriculum innovation.

Programs associated with the center focus on identifying "best practices" in all aspects of hospitality and tourism such as hotel operations, restaurant operations, global tourism, and events, conventions and attractions management. The center's mission is pursued in multiple venues, including private, public, and not-for-profit agencies. Our vision is to become the leading center for hospitality and tourism management education in Southern California and a prominent national and international resource for questions related to education in hospitality and tourism. The center actively seeks to support SDSU, the College of Business Administration, the College of Professional Studies and Fine Arts, and members of the local and national community in matters related to hospitality and tourism. The center is located in PSFA 436, 619-594-4964; http://www.sdsu.edu/business/htm.

## 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 region.

The center also houses the California Institute for Smart Communities founded to assist communities understand the use of technology as a catalyst for economic and social development. The Web site is http://www-rohan.sdsu.edu/dept/intlcomm/library.html.

## Institute for International Security and Conflict Resolution (IISCOR) Dipak K. Gupta, Director

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 conflict, sociopolitical violence, and global environmental issues as they relate to security are covered.

The institute is a joint effort of the College of Professional Studies and Fine Arts, the College of Arts and Letters, and the College of Sciences. IISCOR is administered by a director and 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 Bachelor of Arts degree in International Security and Conflict Resolution. The Web site is http://www-rohan.sdsu.edu/ ~iiscor/index.htm.

## Institute for Leisure Behavior Gene G. Lamke, Director

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

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

The institute administers a variety of service programs within San Diego County. Camp Able at Coronado, an aquatic-based camp for disabled children and adults, operates ten weeks during the summer at Silver Strand State Beach. The Spring Valley R.E.A.C.H. Program,
funded by Social Advocates for Youth, provides recreational and educational activities for children and youth. Additionally, the institute conducts research for local tourism, park and recreation entities as well as the California Department of Parks and Recreation and the United States Forest Service.

The institute publishes 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/tourism services. The Web site is http://psfa.sdsu.edu/centers_and_institutes/leisure.html.

## Center for Optimal Health and Performance (COHP) <br> Barbara E. Ainsworth, Director

The Center for Optimal Health and Performance (COHP) is a service unit within the Department of Exercise and Nutritional Sciences. It provides services to community members in the assessment of physical fitness, diet, cardiovascular risk, and bone health. COHP also provides physical activity and nutritional counseling and supervised exercise training for adults of all ages. Target populations are 1) adults interested in improving their physical fitness, physical activity, and nutritional behaviors, 2) adults seeking advice to prevent inactivity related chronic diseases, and 3) athletes seeking advice to improve their athletic performance. Committed to the promotion and support for active living and healthy eating, the center serves as an educational medium for undergraduate and graduate students to gain hands-on experience in exercise and nutritional assessments, counseling, and exercise leadership. COHP operates cooperatively with the SDSU Center for Behavioral Epidemiology and Community Health and in collaboration with the Bone Health Unit. The Web site is http:// www.cohp.sdsu.edu/.

## Production Center for Documentary and Drama Jack Ofield, Director

The Production Center for Documentary and Drama is located in the School of Theatre, Television, and Film and is the professional production arm of the university. The center mentors graduate students in media in the creation of projects that promote their artistic and technical growth, and works with global film schools, film institutes, and filmmakers in the production of its long-running, international TV series, "The Short List," showcasing short films. The center interfaces with local, state and national entities in the creation of films and television programs in the arts, humanities, and sciences, including distribution on public and cable television. These projects provide senior and graduate students with professional opportunities to work in key capacities, such as writing, directing, camera crew, editing, and production design. The Web site is http://www.rohan.sdsu.edu/dept/ socgrad/TFM/productioncenter.html.

## Institute of Public and Urban Affairs <br> 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. The Web site is http://psfa.sdsu.edu/spaus/ ipua.htm.

## Dr. Sanford I. Berman Institute for Effective Communication and General Semantics Brian H. Spitzberg, Director

The Dr. Sanford I. Berman Institute for Effective Communication and General Semantics within the School of Communication is dedicated to the scholarly study of language and its relations among our symbolic activities, society, and the mind. Specifically, the institute is devoted to the assessment, investigation, and enhancement of communication processes in applied contexts. The Web site is http:// psfa.sdsu.edu/centers_and_institutes/berman.html.

## Institute for the Study of Intercollegiate Athletics (ISIA)

## Roger W. Caves and Douglas Coe, Co-Directors

The Institute for the Study of Intercollegiate Athletics (ISIA) is a research center focused on the use of survey research methods to obtain much needed data about issues concerning intercollegiate athletics and issues associated with intercollegiate athletes. Clients include universities, athletic conferences, foundations, media outlets, and other private sector concerns. A complete range of services is available to include: survey instrument design, sampling, data collection, data reduction and analysis, summary report of findings.

## Sycuan Institute on Tribal Gaming Carl Winston, Director

The Sycuan Institute on Tribal Gaming focuses on research, policy studies, and education related to the area of tribal gaming management. The institute, centered in the largest tribal gaming community in the world, is geared to studying tribal gaming within the broader industry of hospitality and tourism management. The functions of the institute include 1) the conduct of timely and innovative research in tribal gaming such as governance, community and regional impact, marketing, tribal gaming operations, trends, etc.; 2) the collection of benchmarking data in order to develop "best practices" in tribal gaming; 3) the creation of an annual summit on tribal gaming that addresses policy, regulatory issues, trends, social issues, etc.; 4) the implementation of an annual community lecture or
symposium on topics geared to informing and engaging the community about tribal issues and community conflicts; and 5) educating students, professionals, tribal personnel, and interested others for positions in the tribal gaming industry. The institute will facilitate the involvement of faculty with expertise from a variety of disciplines such as mathematics, computer science, policy studies, business, marketing, and public relations in the process of creating and disseminating new knowledge in the area of tribal gaming. The institute is managed and operated by the interdisciplinary Hospitality and Tourism Management program at SDSU and supported by an endowment from the Sycuan Tribal Council of the Kumeyaay Indians.

## Center for the Visual and <br> Performing Arts <br> Donald R. Martin, Director

The Center for the Visual and Performing Arts serves as a focal point for the arts on campus and in the San Diego region. The center's primary activities involve enhancing, coordinating, and publicizing the college's visual and performing arts programs, forming alliances and partnerships with San Diego arts agencies, and initiating new programs to expand the impact of the arts on the campus and in the community.

The center promotes the integration of the arts on campus through curriculum initiatives by designing collaborative courses that integrate the arts into other discipline areas. The center enhances art on campus by bringing internationally known artists to perform and exhibit, to conduct master classes and workshops, and to present lectures for students, faculty, and the San Diego arts community. The center promotes the arts throughout the community by initiating outreach programs from the campus in the visual and performing arts. The center also serves the campus and the San Diego artistic community by exploring important issues and themes relative to the arts through educational opportunities, public forums, research, and multidisciplinary and multi-cultural exhibits and performances. The Web site is http://psfa.sdsu.edu/centers_and_institutes/visual.html.

## College of Sciences

## Administration

Dean: Patrick J. Papin (Interim)
Associate Dean for Academic Affairs:
Associate Dean for Faculty Affairs: Catherine J. Atkins
Assistant Dean for Student Affairs: Estralita Martin
Director of Development:

## 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, and about 5,000 acres in four biological sciences research stations. The majority of tenured Sciences faculty have active research programs which offer student involvement.

## Curricula Offered

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

Doctoral Programs<br>Biology (Cell and Molecular), Chemistry, Clinical Psychology, Computational Science, Ecology,<br>Mathematics and Science Education

## Master's Degrees

Applied Mathematics (M.S.), Astronomy (M.S.), Biology (M.A. M.S.), Biomedical Quality Systems (M.S.), Chemistry (M.A., M.S.), Computational Science (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.), Regulatory Affairs (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 Sciences (B.S.), Geological Sciences (B.S.), International Security and Conflict Resolution (B.A.; jointly with the College of Arts and Letters and the College of Professional Studies and Fine Arts), Mathematics (B.A., B.S.), Microbiology (B.A., B.S.), Physical Science (B.A.), Physics (B.A., B.S.), Psychology (B.A.), Statistics (B.S.).

## Minors

Astronomy, Biology, Chemistry, Computer Science, Energy Studies, Geological Sciences, History of Science and Technology, International Security and Conflict Resolution (jointly with the College of Arts and Letters and the College of Professional Studies and Fine Arts), Mathematics, Oceanography, Physics, Psychology, Statistics.

## Certificate Programs

Biotechnology, Communications Systems, Geographic Information Science, Mathematics Specialist, Professional Computational Science, Regulatory Affairs, Single Subject Mathematics.

## Other Curricula

Allied Health, Predental, Premedical, Preoptometry, Prepharmacy, Prephysician Assistant, Prepodiatry, Preveterinary.

# Research Centers and Institutes 

## Edwin C. Allison Center for Earth System History <br> Lindsey Leighton and Stephen Schellenberg, Co-Directors

Throughout the history of science, many of the critical breakthroughs in scientific understanding have resulted from cross-disciplinary research. The mission of the Allison Center for Earth System History is to foster this approach across the fields of paleontology, paleoclimatology, geochemistry, sedimentology, and organismal biology. The center seeks to facilitate research designed to improve and disseminate our understanding of global change and biodiversity, arguable the two most important topics facing current and future generations. Research materials of the co-directors and their students form the core of an in-house reference and systematics collection, including Cretaceous to Recent Ostracodes from globally distributed ocean drilling sites and Ordovician, Devonian, and Carboniferous brachiopods and associated communities from the Appalachian Basin, the Great Basin, the Ohio Valley, and the mid-continent. Scholarly examination of these and other materials by SDSU students, faculty, and guests (e.g. visiting students, faculty) are supported through dedicated research space and facilities, including image analysis, carbonate microsampling, and hydrodynamics flume systems. The Web site is http://www.geology.sdsu.edu/facilities/allisonctr/.

## Center for Behavioral and Community <br> Health Studies (BACH) <br> John P. Elder, Director

Terry L. Conway, Linda C. Gallo, Joni A. Mayer, and Gregory A. Talavera, Associate Directors
The Center for Behavioral and Community Health Studies (BACH) is housed at 9245 Skypark Court, Suite 221, San Diego, CA 92113. 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. The center has seven investigators from three different colleges. The interdisciplinary center encourages participation from all of the university colleges and departments. Currently, active investigators come from the Departments of Exercise and Nutritional Sciences, Psychology, and the Graduate School of Public Health. Current center projects involve collaboration between scientists and clinicians 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 National Cancer Institute, National Heart, Lung and Blood Institute, the State of California Department of Health Services, and the University of California Tobacco Related Disease Research Program.

The center provides important research experiences to diverse students who intend to pursue related careers and offers opportunities for project staff and graduate students to participate in community interventions. The Web site is http://behavioralhealth.sdsu.edu/ frontpage.html.

## Center for Behavioral Teratology (CBT) <br> Edward P. Riley, Director Sarah N. Mattson, Associate Director

Teratology is the study of birth defects. The faculty and students at the Center for Behavioral Teratology (CBT) are interested in how prenatal exposure to various drugs influences both brain and behavioral development. Additionally, members of the center engage in research related to the general neurotoxicity of alcohol. The CBT is truly an interdisciplinary research organization, with a broad range of basic and
clinical research interests. While the primary purpose of the CBT is to promote research in teratology, personnel in the center also act as a resource to the university and the community. The staff provides in-service talks at local hospitals, schools, and drug treatment facilities, as well as lectures to various classes at the university. The CBT staff has active collaborations with faculty from UCSD, the VA Hospital, Children's Hospital, and the Scripps Research Institute. Faculty in the center have grants from the National Institutes of Health, Tobacco-Related Disease Research Program, and the State of California.

## Coastal and Marine Institute Richard M. Gersberg, Director

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, 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. The Web site is http:// www.sci.sdsu.edu/CMI/.

## Computational Science Research Center (CSRC) José E. Castillo, Director <br> Andrew L. Cooksy, Eugene A. Olevsky, Paul J. Paolini, and Faramarz Valafar, Associate Directors

The Computational Science Research Center (CSRC) promotes the development and advancement of the interdisciplinary subject of computational science. This is accomplished by fostering research, developing educational programs, and promoting industrial interaction, outreach, and partnership activities.

The center provides an environment for scientific research at San Diego State University. It facilitates the interaction between applied mathematics, computer science, and other disciplines by providing the necessary infrastructure for productive research efforts. Real world applications are the focus of faculty and student projects. These projects provide an educational opportunity for students to hone industrially relevant computational skills.

The goals of the center are to encourage and facilitate research in computation, simulation, visualization, and numerical modeling in all disciplines (business and finance, biology and bioinformatics, engineering, physical sciences, and geography); to interact with other centers, laboratories, universities, and local industry; reduce lag time between algorithm development/analysis and applications; to participate in programs with other countries, including international programs sponsored by the National Science Foundation; to arrange visits by professors, including foreign visitors on sabbaticals and professional staff on industrial sabbaticals; to arrange part time and adjunct appointments for consulting activities by professional staff from local research laboratories; to provide employment, experience, and contacts for students; to sponsor conferences, workshops, and courses; to facilitate collaboration with government laboratories with private sector; to provide bridges to regional industry; and to direct the computational science program at San Diego State University.

Interested students and faculty may obtain more information by calling the CSRC office at 619-594-7205, http://www.sci.sdsu.edu/csrc.

## Education Center on Computational Science and Engineering (ECCSE) Kris W. Stewart, Director

The Education Center on Computational Science and Engineering (ECCSE) has supported and promoted the use of new computational tools in undergraduate instruction at SDSU and the California State University (CSU) since 1997. The main goal of the ECCSE is to better prepare learners for post-baccalaureate activities where collaborative
interdisciplinary teams, sophisticated computer tools, and effective communication are part of the research and problem-solving environment.

Funded in part by the National Science Foundation, the ECCSE represents the CSU system within the National Partnership for Advanced Computational Infrastructure (NPACI), one of only two National Science Foundation-supported high performance computing partnerships in the nation, involving research centers from across the United States and the world.

The ECCSE team of faculty educators, student developers, and education technology specialists accomplishes its mission by working closely with some of the world's leading computational scientists at the San Diego Supercomputer Center (SDSC), the 'Leading Edge Site' of NPACI. By providing a wide variety of education outreach projects, presentations, and training, the ECCSE is most valuable to faculty with a strong interest in broadening their undergraduate students' exposure to modeling, simulation, visualization, and high-performance computing resources in their specific discipline.

Education, outreach, and technology transfer play an important role in achieving the national goal of ensuring our leadership in advanced computing in the world. The ECCSE makes a valuable contribution to this effort by serving as an educator-friendly gateway to high-end computing and communications technologies. Through projects such as the ECCSE Faculty Fellows program, the Computational Science Olympics, and the Computational Science Resource Community, undergraduate faculty and their students gain valuable practical experience with some of the most advanced computational resources in the world. To learn more about the ECCSE, please visit our Web site at http:// www.edcenter.sdsu.edu.

## Center for Energy Studies (CES) <br> Alan R. Sweedler, Director

The San Diego State University Center for Energy Studies (CES) facilitates, promotes and supports research and academic programs relating to energy, with particular emphasis on energy matters of concern to the San Diego and local southwest region including the international border with Mexico. The center encourages interdisciplinary research and instructional programs in the broad areas of energy modeling, technology assessment of energy systems, local energy policy planning and data collection relating to energy usage in the San Diego region. SDSU offers through the center an interdisciplinary minor in energy studies. Completion of the minor will give the student a broad understanding of the technical, economic, social, and political aspects of energy issues. For more information call the center at 619-594-6240 or 619-594-6155. The center works closely with local and state agencies concerned with energy policy and planning, and serves as a community resource in matters concerning local energy issues, and the impact of energy use of the environment. The Web site is http://www-rohan.sdsu.edu/dept/physics/CES.html.

## Field Station Programs

## Matthew Rahn, Interim Executive Director

The Field Station Programs provide opportunities for a broad community of students and faculty to explore the natural ecosystems of southern California. In addition, the field stations serve SDSU by functioning as a liaison to broader public community, highlighting SDSU's expertise regionally, nationally, and internationally. The Field Station Programs manage almost 9,000 acres of San Diego and Riverside county land for university teaching and research.

SDSU currently has four field stations: the Sky Oaks Field Station, 1,640 acres of high elevation redshank chaparral habitat in the Chihuahua Valley east of Temecula Valley; the Santa Margarita Ecological Reserve (SMER), a 4,464 acre reserve located along the upper Santa Margarita River inland from Camp Pendleton in San Diego and Riverside Counties; Fortuna Mountain, 231 acres close to the SDSU campus located within Mission Trails Regional Park; and the Tijuana River National Estuarine Research Reserve, a 2,513-acre reserve which serves as an auxiliary field station for SDSU.

Providing research and education opportunities for the future requires detailed knowledge of how changes in the environment outside the boundaries of a certain area affect ecosystem dynamics within
that area. As habitat continues to be lost to development, areas such as the SDSU field stations will increase in importance as sites for studying natural ecosystems

The proximity of sensitive habitats to a rapidly urbanizing landscape makes this region a recognized biodiversity "hot spot." San Diego State University has an extremely dynamic group of scientists (faculty, researchers, and students) working to understand these unique and threatened ecosystems. Research ranges from the global scale examining global warming and the impacts of increased carbon dioxide on native vegetation to the meso- and mico-scales of chaparral ecosystems dynamics, as well as plant, vertebrate, insect, and fungal diversity. Researchers at SDSU are also increasingly using sophisticated computer modeling and molecular techniques for analyzing environmenta change. Natural sciences are the core users of the SDSU field stations. Biology, geography, geological sciences, hydrogeology, and other field sciences are consistent areas of study. There are growing opportunities for interdisciplinary work as well as for nontraditional study in the fields ranging from public health, civil and environmental engineering, recreation, business, and art, to education.

Persons interested in conducting research, instructional use, or access to the SDSU field stations should contact the academic programs of the SDSU Field Station Programs at 619-594-0580. Inquiries can also be made through the SDSU Field Station Web site at http:// fs.sdsu.edu/kf/.

## Heart Institute

## Christopher C. Glembotski, Director

The Heart Institute is sponsored by the College of Sciences and the College of Health and Human Services. The goals of the institute are to enhance basic and clinical research in the cardiovascular sciences, to foster undergraduate and graduate education in cardiovascular physiology and medicine, and to provide a community outreach service focused at heightening the awareness of cardiovascular disease and its prevention in the San Diego region surrounding SDSU. The institute is comprised of faculty members representing four different colleges at SDSU, as well as physicians and scientists from local hospitals and clinical research centers. Importantly, the institute also sponsors SDSU undergraduate and graduate student memberships, which strengthens the involvement of students in all aspects of Heart Institute activities. The unusual blend of talent and expertise that comprise the institute membership results in an interdisciplinary approach to cardiovascular research, education and community outreach that is unique to the Heart Institute. The institute sponsors special seminars, on- and off campus, which cover a wide range of topics in the field, and provides funding for the support of graduate students who are involved in cardiovascular research at SDSU. Areas of focus for the institute include studies of the molecular basis of cardiovascular disease, establishment of unique approaches for the early detection and prevention of cardiovascular disease, and the promotion of cardiovascular health in San Diego area K-12 schools. An important feature of these efforts that distinguishes the Heart Institute is the central role that SDSU students play in each of these areas. Funding for Heart Institute activities comes from a variety of sources, including the National Institutes of Health, the American Heart Association, the Muscular Dystrophy Association, the Rees-Stealy Research Foundation, and several San Diego-based biotechnology companies. For more information contact the Heart Institute office at 619-594-5504. The Web site is http://www.bio.sdsu.edu/heart/sdsuhihome.htm.

## Center for Information Technology and <br> Infrastructure (CITI)

## Eric G. Frost and Robert Welty, Co-Directors

The Center for Information Technology and Infrastructure (CITI) was established to promote the vision of transforming and empowering SDSU to take advantage of emerging tools in optical networking, wireless communication, and human-computer interactions through visualization. It nurtures new technologies, builds on existing efforts in environmental monitoring, student safety, transportation studies, law enforcement and first responder interaction, homeland security, collaborative education, Internet technologies, GIS systems, and other
high interest areas. Activities extend to many sectors of the community (government, business, academia, non-profit organizations, private citizens) and among different jurisdictions within the region.

CITI is a product of the efforts of the SDSU Visualization Center resulting from community exercise development and participation. Its infrastructure exists in the form of hardware, software, facilities, people, and relationships. Many of these resources were informally gathered through the efforts of the SDSU Viz Center, the SDSU Research Foundation, and relationships with corporations. SDSU has actively collaborated and established partnerships with other academic and medical institutions, law enforcement and military agencies, local, state and federal governmental agencies, and high technology corporations. It has a strong relationship with the University of California, San Diego (UCSD), and the California Institute for Telecommunications and Information Technology (Calit2). The center's continuing involvement in community exercises and organizations also results in a strong, collaborative relationship with regional law enforcement and first responder agencies. These efforts promote additional research, resulting in increased awareness and understanding, a higher state of preparedness, and greater safety for our residents across the region.

CITI pursues four major themes, which provide framework for the center and a pathway for diverse projects: homeland security; natural disaster mitigation and response; global sharing of information and collaborative visualizations; and remote sensing and environmental monitoring. The Web site is http://citi.sdsu.edu/.

## Center for Inland Waters Stuart H. Hurlbert, Director

The Center for Inland Waters is an interdisciplinary academic unit consisting of faculty members from four SDSU colleges (Arts and Letters, Engineering, Health and Human Services, Sciences). Its purpose is to foster basic and applied collaborative research among SDSU scientists and scholars on inland water resources and ecosystems, the application of their expertise to the solution of water-related problems in southern California and adjoining regions, and the coordination and development of courses, curricula, and physical facilities for waterrelated instruction and research. Inland water resources include the water supply for domestic, agricultural and industrial uses, the growing system of aqueducts, reservoirs, and aquifers in which this supply is transported and stored, and the rivers, lakes, and wetlands important as habitat for wildlife, as maintainers of environmental health, and as recreation areas. Of special interest to the center are social, economic, hydrological, public health, and ecological issues concerning the Colorado River and its delta, the Salton Sea, and the new Tijuana and Santa Margarita Rivers and their watersheds. The center is operated as a special unit of the College of Sciences and is administered by a director and an elected executive committee. Information on the center and regional water resources is available at
http://www.sci.sdsu.edu/salton/.

## Institute for International Security and Conflict Resolution (IISCOR) Dipak K. Gupta, Director

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 College of Sciences, the College of Arts and Letters, and the College of Professional Studies and Fine Arts. IISCOR is administered by a director and 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 Bachelor of Arts degree in International Security and Conflict Resolution. The Web site is http://www-rohan.sdsu.edu/~iiscor/index.htm.

## Center for Research in Mathematics and Science Education (CRMSE) Kathleen M. Fisher, 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 biology, geological sciences, mathematics and statistics, physics, policy studies in language and cross-cultural education, psychology, and teacher education. CRMSE is administered by a director and an associate director, who are appointed by the deans of the Colleges of Sciences and Education, in consultation with CRMSE members. 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 administers the Doctoral Program in Mathematics and Science Education that is offered jointly by SDSU and the University of California, San Diego. It also houses the Professional Development Collaborative to serve area teachers. The main office of the center is located at 6475 Alvarado Road, Suite 206, San Diego, CA 92120-5013; telephone 619-594-5090; campus mail code 1862. The Web site is http://www.sci.sdsu.edu/ CRMSE/.

## Center for Microbial Sciences Stanley R. Maloy, Director <br> Anca M. Segall, Associate Director

The Center for Microbial Sciences is a research center dedicated to the study of microorganisms. The center's mission is to provide a productive, stimulating, and interactive research environment that will lead to rapid progress in the fields of microbial biology. The center integrates multiple scientific approaches to elucidate basic biological principles that helps in combating human health problems caused by microorganisms and stimulates applications of microorganisms in the biotechnology industry.

The center encourages multidisciplinary scientific research by bringing together a group of creative, cooperative investigators with different scientific backgrounds to attack major questions in microbial biology using a variety of experimental approaches. The center also trains scientists to attack important but neglected problems in microbial biology. The close proximity of the Center for Microbial Sciences to a nucleus of biotechnology companies facilitates interactions with industry. The center also collaborates with neighboring institutions with expertise in other biological areas (UCSD, Scripps Research Institute, Salk Institute, Scripps Institution of Oceanography, and others) providing additional intellectual and physical resources.

The primary goals of the center are: Research - To attract a group of imaginative, interactive investigators and provide a stimulating environment for productive, innovative research in microbial biology; Training To train a new generation of scientists to solve important problems in microbial biology using innovative experimental approaches; Outreach - to provide expertise and facilities for visiting scientists from academia and industry to learn new technologies. The Web site is http:// www.sci.sdsu.edu/~smaloy/CMS/.

## Microchemical Core Facility (MCF) Forest L. Rohwer, Anca M. Segall, and Robert W. Zeller, 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 state-of-the-art facility that provides DNA sequencing and purification services for cell and molecular biologists associated with any of the 23 CSU campuses. In addition, the MCF provides for CSU faculty access to the most recent advances in com-puter-assisted analyses of molecular structure. Located on the third floor of the Chemical Sciences Laboratory building and managed by the Department of Biology, 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. Call 619-594-1669 for more information. The Web site is http://www.sci.sdsu.edu/dnacore/ sdsu_dnacore.html.

## Molecular Biology Institute

Greg L. Harris, 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, Chemistry and Biochemistry, and the Graduate School of Public Health, 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; 619-594-7429. The Web site is http:// www.bio.sdsu.edu/cmb/masters.html.

## NExTWORK

William A. Root, Director
SDSU's Nexus for Technology Workforce Education (NExTWORK) functions as an incubator for new programs designed to help the university respond more nimbly to San Diego's technology workforce needs. Nextwork seeks to invent, implement, and promote new programs at the department and college levels that will help the university to identify, and to incorporate into our curricula promptly, those emerging technologies and technology skills that are critical to the regional workforce. Nextwork's goal is to insure that the number of SDSU technology graduates, and the skills they possess upon graduation, keep pace with local industry demand. Currently Nextwork focuses on the computer technology segment of the regional technology workforce; consequently the Department of Computer Science serves as the testbed academic department for Nextwork's prototype programs: The Technology Workforce Watch undertakes monthly surveys of the anticipated technology workforce requirements of a representative sample of local technology firms; The Technology Workforce Bulletin, mailed each semester to selected technology industry leaders and regional legislators, presents recent findings of the Technology Workforce Watch and describes SDSU's responding educational initiatives, if any; The Industry Certification Curriculum Program promotes expansion of existing computer science courses into multi-semester sequences including product-specific case-studies that provide excellent preparation for industry-standard certification exams; Nextwork's on-campus internships program provides a broad spectrum of relevant technology-oriented internships entirely within, and supporting, SDSU itself; Technology Training Partnerships with major commercial technology training providers offer SDSU students and faculty access to training in new technology areas in which SDSU has no current faculty presence.

Nextwork is administered by a director appointed by the dean of the College of Sciences, and resides in facilities provided by the College of Sciences. For further information, call the Nextwork office at 619-286-8715 or 619-994-8715.

# Imperial Valley Campus 

## Administration

Dean: Stephen B. W. Roeder

Associate Dean for Academic Affairs: Stephen A. McNett
Assistant Dean for Student Affairs: Miguel Rahiotis
Director of Business and Financial Services: Irma Martinez
Director of Advancement: John Renison

## Faculty

Emeritus: Ayala, Baldwin, Ballesteros, Elizondo, Fatemi, Harmon, Hill, King, Merino, Polich, Spencer, Varela-Ibarra
Professors: Dunn, Medeiros, Neumann, Reyes, Roeder, Ryan, Shumaker
Associate Professors: Amaral, Castañeda, Champion, Coates, Garrison, Sabath, StampfI, Verzi
Assistant Professors: Boime, Herrera, Itzá, King, Perner, Ponce, Ramirez-Pimienta, Yoo
Lecturers: Cook, Fuentes, Livingston, McNett, Murphy

## General Information

The Imperial Valley Campus is a branch 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 has two locations in the Imperial Valley: Calexico and Brawley. Offering the last two years of undergraduate education, graduate programs, and fifth year credential programs for teacher preparation, the campus accepts students who have at least 56 transferable units from community colleges or other accredited institutions. The Imperial Valley Campus offers students the advantages of smaller classes and individual contact with the faculty. The Imperial Valley Campus faculty are multinational in their classroom orientation and background. Interactive television provides students in Calexico the opportunity to participate in various classes broadcast live from the campus in San Diego. The Imperial Valley Campus schedules its classes to meet once a week in three-hour blocks so that students who work full time can earn 9-12 units a semester by attending classes once or twice a week. Occasional classes are also offered on the weekends.

The Imperial Valley Campus is located in Imperial County which has a population of approximately 140,000 people. Calexico is 120 miles east of San Diego, 60 miles west of Yuma, Arizona and 120 miles south of Palm Springs. Interstate 8 and State Highways 111 and 86 connect the County to the rest of the country and state. In 2003-2004, we proudly expanded our campus to two sites in order to better serve our students and our community. The Calexico location, six blocks from the Mexican border, provides the opportunity for involvement in a bicultural environment. Just across the border is Mexicali, a city of more than one million people. The Brawley location is 24 miles north of the Calexico site. It is surrounded by rich agricultural fields, the largest industry in the Imperial Valley.

The over 900 students at Imperial Valley Campus have the opportunity to be involved in a rich campus life. Student clubs, student government, lectures, art exhibits, quad musical events, library and computer center special programs enhance the students' education at SDSU - Imperial Valley Campus.

The Imperial Valley Campus Web site is
http://www.ivcampus. sdsu.edu.
The telephone number is 760-768-5500.

## Curricula Offered

## Undergraduate Degrees

Major in business administration (agribusiness emphasis) with the B.S. degree in applied arts and sciences.

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

Major in English with the B.A. degree in liberal arts and sciences. Major in history with the B.A. degree in liberal arts and sciences.
Major in international business (Latin America and North America emphases), 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 mathematics 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 English.
Minor in history.
Minor in linguistics.
Minor in mathematics
Minor in political science.
Minor in psychology.
Minor in public administration.
Minor in small business management.
Minor in Spanish.

## Graduate Degrees

Master of Arts degree in Education
Concentration in Educational Leadership
Concentration in Elementary Curriculum and Instruction
Concentration in Secondary Curriculum and Instruction
In addition, the Imperial Valley Campus, in cooperation with academic units and the Division of Graduate Affairs on the San Diego campus, offers the following graduate programs leading to advanced degrees.

Master of Public Administration
Master of Science degree in Business Administration
Concentration in International Business

## Certificate Programs

Business Administration, Court Interpreting, Introductory Mathematics, Public Administration, Single Subject Mathematics, Translation Studies

## Teaching Credentials

Basic: Multiple Subject Cross-Cultural Language and Academic Development (CLAD) emphasis, Multiple Subject Bilingual Cross-Cultural Language and Academic Development
(BCLAD) emphasis: Spanish, Single Subject
Specialist: Administrative Services
Special Education
(Both in conjunction with the College of Education)
For further information on any of these degrees, see the SDSU Imperial Valley Campus Bulletin.

## Freshman Scholars Program

The Freshman Scholars Program offers an opportunity for a small, select cohort of students to join their intellectual peers in a four-year university program. The courses are designed to stimulate students with excellent academic skills who seek knowledge and new perspectives. The first year curriculum provides a foundation for several majors on our campus, currently criminal justice administration, liberal studies, or psychology. The courses will also allow students to participate in a fast-track curriculum leading to a degree in liberal studies and a multiple subject credential in nine semesters.

## Exchange Programs and Study Abroad

Graduate and undergraduate students at the SDSU-Imperial Valley Campus can enhance their education and cultural awareness by taking part in several of the many opportunities available to study abroad. The campus has active exchange agreements with universities in Argentina, Brazil, Croatia, Ecuador, Finland, France, Germany, Iran, Mexico, Morocco, Paraguay, Turkey, Ukraine, and the United Kingdom. Several other agreements are in process of negotiation with different academic institutions around the world, including Chile, Costa Rica, and Uruguay.

There are exchange programs for undergraduate students between the Imperial Valley Campus, the Universidad Autónoma de Baja California, and Centro de Enseñanza Técnica y Superior, that allow students to take classes at either of the participating universities and receive credit at their home institution.

In addition to IVC's own International programs, students may participate in any international programs at SDSU, including the California State University International Programs; the SDSU spring semester programs; or the International Student Exchange Program (ISEP) Consortia.

## Research Centers and Institute

## California Center for Border and Regional Economic Studies (CCBRES) Kimberly Collins, Director

The California Center for Border and Regional Economic Studies (CCBRES) specializes in research on the Imperial Valley and U.S.-Mexican border region. The center collects and compiles statistics on economic, demographic, social, environmental, and trade indicators on the Imperial County, Mexicali Baja California, and the binational region. It publishes a bimonthly bulletin of indicators in the region along with inhouse and sponsored analysis of border policy issues. Started in 1999, the center has created a resource for the region's residents and individuals interested in issues surrounding the U.S.-Mexican border. The center receives over 12,000 inquiries per year for information on the Imperial-Mexicali valleys.

In addition to the database and monthly bulletins. CCBRES conducts a number of sponsored research projects. The focus of recent research has included quality of life, air quality, environmental perceptions of local residents, the development of a system dynamics model for the binational region, and the capacity of governments on both sides of the border to manage air quality issues.

The center has hosted a number of conferences and workshops on border issues, ranging from trade and economics to environmental and educational issues. The center has been the primary organizer of the annual Imperial Valley Economic Development Summit. In the seventh year, this conference has been recognized as an annual, well respected event with over 200 attendees each year. This event helps to highlight San Diego State University as a provider of high qualify information on the region.

The center has provided national and international recognition to the Imperial Valley Campus of San Diego State University as a source for quality border research. The Imperial Valley Campus has been designated by the U.S. Department of Agriculture as one of eight National Centers of Excellence primarily based on the activities of CCBRES.

The center's Web site is http://www.ccbres.sdsu.edu, e-mail address is kcollins@mail.sdsu.edu, telephone number is 760-7685510, and FAX number is 760-768-5583.

## Center for Individual and Professional Skills Development Susanna Fuentes, Director

The Center for Individual and Professional Skills Development at San Diego State University-Imperial Valley Campus offers community programs to the Imperial and Mexicali valleys. The center presently offers English as a Second Language (ESL) in the local community and in Mexico, a teacher training program, business English for executives, and the computer and language training program (a rehabilitation program for injured workers). Additionally, the Center for Individual and Professional Skills Development presents annual conferences including the Bi-national Conference on Education and the Bi-national Youth Leadership Conference. The center has twice been the recipient of a Wellness Foundation Grant and a U.S. Department of Housing and Urban Development Grant.

## Desert Farming Institute Stephen B. W. Roeder, Director

The Desert Farming Institute at the Imperial Valley Campus of San Diego State University has two distinct components. First, a research unit explores desert farming and its potential for improving the competitiveness of agriculture in the desert southwest. Of special interest are the introduction of new crops and growing crops under low water use conditions. The second unit of the institute is the Center for the Study of International Trade in Agriculture with the objective of studying international trade in agriculture and making the results available to California and Arizona farmers.

## Facilities

The Calexico campus is located on an eight-acre city block in the heart of Calexico's civic center along the Mexican border. The campus facilities create a pleasing architectural harmony of old and new structures surrounding a spacious central lawn area, the Rollie Carrillo Quad. Adjoining the quad, the expanded library, Rodney Auditorium, and John Steppling Art Gallery provide academic and cultural resources for the entire community. Other buildings include classroom buildings, the administration building, faculty offices, a computer lab, a bookstore, and the Student Union. In 2003-2004, we proudly expanded our campus to two sites in order to better serve our students and our community. The Brawley location is 24 miles north of the Calexico site. It is surrounded by rich agricultural fields, the largest industry in the Imperial Valley. Brawley houses five classrooms, including one classroom with video conference capabilities, and one computer classroom.

The library, located at the Calexico site, is designed to facilitate research and to provide a pleasant atmosphere for study. The collection is expanding and has more than 110,000 volumes, periodicals, and newspapers which support the curricula offered on the Imperial Valley Campus. Services provided include reference assistance, CD ROM databases, personal computers for word processing, full text database, Internet access, interlibrary loans, and photocopying facilities.

Computer assistance is available in the computer lab. Both Macintosh and IBM compatible systems and Internet access are also available on campus.

## Transfer Center

The Transfer Center is a project that provides support services to identified and potential transfer students from accredited institutions. Information is provided by a professional counselor about programs and services available at San Diego State University, Imperial Valley Campus. The project works with all students but has as its goal to increase the number of underrepresented students in higher education. Underrepresented students are minorities, disabled, low income, and others not appropriately represented among the transfer population. For more information, call 760-768-5506 or visit the office located in Student Affairs.

## 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 760-768-5667 for further information. Students can register on the Internet using WebPortal, but only after fees are paid. Late registration is allowed during the first two weeks of the semester. Students wishing to late register must pay registration fees plus a $\$ 25.00$ late fee.

## Imperial Valley Campus Scholarships

The Imperial Valley Campus students were awarded over \$75,253 in scholarships for the 2004-2005 academic year. Information and applications for scholarships are available from the Financial Aid Office. Following is a list of scholarships established at Imperial Valley Campus:

Alejandro and Florencia Nogales
Board of Supervisors
Calexico Educational Foundation
Cesar E. Chavez
Dean's Scholars
Enrique Camarena
Good Sport Howie
HACU
Imperial County Farm Bureau Joe and Dorothy Rodney

## Endowments:

Anheuser-Busch Companies, Inc.
William and Susan Brandt
Enrique (Kiki) Camarena
Francis and Edna Rae Frye
Jack Hart Family
Good Sport Howie
Herschel Hudson
Nancy A. Marlin
Sally McMahon/Doves
Alejandro and Florencia Nogales

Douglas and Barbara Patiño Joe Patiño Family
Jerry Pennington Memorial
Ralph and Eva Pesqueira
Joe and Dorothy Rodney
Rotary International District 5340
Ethan A. Singer
Stephen and Susan Weber
Title $V$

## Commencement

The Imperial Valley Campus holds its own commencement exercises each spring, in the Rollie Carrillo Quad, prior to commencement exercises on the San Diego campus.

## Imperial Valley Campus - Calexico Campus Map

## SDSU IVC Campus - Calexico

720 Heber Avenue
Calexico, CA 92231
760-768-5500


## BUILDING LEGEND

1. North Classroom Building ( $\mathrm{N}-101, \mathrm{~N}-102, \mathrm{~N}-106, \mathrm{~N}-108$ )
2. Administration Building (Administration/Academic Affairs/Business Office)
2A. Art Gallery
3. Auditorium/ Classrooms (A-3, LA-1, LA-2, LA-3, LA-4)

## Imperial Valley Campus - Brawley Campus Map

## SDSU IVC Campus - Brawley

560 East Highway 78
Brawley, CA 92227
760-351-0806


## Library and Information Access

## Administration

Dean, Library and Information Access: Connie Vinita Dowell
Associate Dean: Jon E. Cawthorne
Director of Information Systems and Technology:
Director of Administrative Operations: Helen Henry
Director of Development:
Director of Access, Communication, and Fiscal Services: Mark R. Lester

## Library Faculty

Emeritus: Barclay, Cargille, Chan, Coleman, Crisley, Dickinson, Dintrone, Fields, Goodwin, Goyne, Granrud, Harkanyi, Harris, Hoover, Johns, Kinsey, Lamb, Leerhoff, Martinez, McAmis, Murdock, Neyndorff, Palsson, Pease, Posner, Rogers, Sandelin, Shira, Sonntag, Szabo, Wilson
Librarians: Fikes, Harley, McPhail, Muroi, Perkins, Puerto, Turhollow, White

Associate Librarians: Baber, Carande, Hall, Hudson, Rhodes, Savage, Stover, Su, Sullivan, Tumlin
Senior Assistant Librarians: Jackson, Payne, Salem

## General Information

Located in the heart of the SDSU campus, Library and Information Access supports the research and curricular needs of the university community through the development of collections and the provision of services designed to facilitate access to information. Voted the best library in San Diego by San Diego Magazine, the library was described as "friendly, accessible, modern and usually packed with good-looking, hard-working young people." A new wing for the library was dedicated in 1996, adding a striking library "dome," which quickly became a landmark on campus. The facility itself has become the intellectual hub for the SDSU campus community, each year offering over 500 talks, lectures, tours, and a dozen exhibits. Spanning more than 500,000 square feet, with more than 3,000 seats for study and research, the library's importance to students, faculty, staff, and individuals living in the San Diego region is documented by more than 3.5 million annual visits.

## Access

The library is open to the public 24-hours per day, except on holidays, recess dates, and between 1:00 a.m.-7:00 a.m., when access is restricted to SDSU students and affiliates. The library's Web site at http://infodome.sdsu.edu/ provides access, within the library and remotely, to the library's catalog, electronic books, over 12,365 electronic journals, and more than 150 databases. Interlibrary loan services are provided to obtain materials not held in the library. In addition, students and faculty can place unmediated requests for books from San Diego and selected California libraries through Circuit and Link+.

The library's Information Systems and Technology group provides computer accounts to all students and hosts World Wide Web pages for students, the university and the library. It operates one of the largest computer labs in the country with over 685 computers with Internet/World Wide Web access. Up-to-date computing resources include a student computing help desk and wireless networking throughout the library.


The library has a comprehensive instruction program, which includes course-related instruction and tours. Librarians provide research assistance in person, by telephone, e-mail and by online chat. Service desks are located in: Circulation, Reference Services, Media Center, Current Periodicals and Microforms Center, Reserve Book Room, and Special Collections.

## Holdings

The library's holdings include 1,649,455 monographs and bound periodicals; 622,192 government documents; 4,432,729 microforms; 140,195 maps; 12,060 sound recordings; and 5,885 linear feet of archival papers. The library receives 12,488 periodical and serial titles, including government publications. It is a depository for United States and California government publications, and holds selected United Nations publications.

## Special Collections and University Archives

This department houses rare, fine, unique and valuable books, periodicals, manuscripts, and documents which require security and care in handling. The collections consist of approximately 37,000 volumes, 270 archival collections, and 369,000 other items, such as photographs, art prints, postcards, memorabilia, etchings, and oral histories.

# Division of Undergraduate Studies 

OFFICE: Administration 101
TELEPHONE: 619-594-5841
FAX: 619-594-2049

## Administration

Dean: Geoffrey W. Chase
Associate Dean:
Assistant Dean: Bonnie M. Anderson

## General Information

The mission of the Division of Undergraduate Studies is to develop and enhance learning communities that foster inquiry, interdisciplinarity, and academic achievement. By continuously improving and adapting academic programs and services, we nurture students' abilities to learn, to respect diversity of peoples and ideas, and to work toward social justice and a sustainable future. Through this work, the division creates opportunities throughout the university and community for creativity. collaboration, innovation, and academic excellence.

The division works toward its mission through a variety of univer-sity-wide programs and services. The division houses the following:

Academic Scholarships
Center for Teaching and Learning
College Readiness Programs
Compact Scholars Program
Faculty-Student Mentoring Program
People, Information, Communication, and Technology Program Interdisciplinary Studies in Three Departments
Liberal Studies
Thomas B. Day Freshman Success Programs
University Honors Program
The division is also responsible for several university-wide mandates. It provides coordination and evaluation of the undergraduate programs at San Diego State University and has general responsibility for the undergraduate curriculum and for academic standards and regulations that affect undergraduate education. Additionally, it coordinates the Western Association of Schools and Colleges (WASC) reaccreditation process, the assessment of student preparedness in writing and mathematics at the freshman and transfer levels, the assessment of student learning, and of the Graduation Writing Assessment Requirement.

## Research Institute

## Qualcomm Institute for Innovation and Educational Success <br> Geoffrey W. Chase, David T. Hayhurst, Lionel R. Meno, Co-Directors

The Qualcomm Institute for Innovation and Educational Success is a partnership between Qualcomm/SDSU. This partnership was formed to accomplish the following objectives:

- Significantly increase the technology skills of SDSU graduates, thereby generating a more qualified workforce and a betterinformed citizenry.
- Develop an educational system that values, encourages, and rewards creative methods of delivering education, from kindergarten through college graduation.
- Establish the institutional infrastructure at SDSU to support large-scale change and transformation of the education system through innovation, evaluation, and dissemination of effective educational methods.
- Dramatically shift the way education is delivered, from kindergarten through college, with an emphasis on improving technology skills and knowledge.
- Develop cross-curriculum synergies among SDSU academic programs that help teach technology skills to students in all courses of study.
- Develop an effective, sleeves-rolled-up dialogue among Qualcomm, SDSU, and the greater San Diego business and corporate community, with the goal of addressing challenges, identifying opportunities, and generating responsive action.
The institute has the following five components:
- Strategic Initiatives Board to provide oversight to the partnership.
- Improving Student Achievement in Mathematics Program to increase student mathematics performance in public schools.
- Project Lead the Way to increase the number and diversity of qualified students entering the College of Engineering.
- People, Information, Communication, and Technology Program to increase the integration of technology with undergraduate students.
- National Center for Urban Schools Transformation will assist urban public schools to dramatically improve the level of student achievement.


## Programs and Services

## Academic Scholarships (OAS)

The Office of Academic Scholarship (OAS) works to coordinate scholarship programs, strategies, and initiatives to best serve the student population. The goal is to provide extended support and programmatic services for high achieving students, for students from diverse backgrounds, for students studying abroad, and for students engaged in educational enhancement activities beyond the campus boundaries and curriculum. Together with faculty, OAS works with current SDSU scholars to secure national scholarships and fellowships at the graduate level.

## Center for Teaching and Learning (CTL) Brock S. Allen, Director

The Center for Teaching and Learning (CTL) promotes effective teaching and learning at SDSU through collaborative ventures with individual faculty, academic units, support services, and student leaders. The center assists SDSU's varied learning communities to define learning goals; to explore, understand, and improve learning processes; to create learning environments and activities; and to assess the effectiveness of educational services and systems. For more information visit http://ctl.sdsu.edu or call 619-594-3157.

The center serves as a campus clearinghouse for information about teaching and learning resources and holds orientations and other events for new faculty. It sponsors a series of monthly lunches open to all faculty on contemporary issues in teaching and learning
ranging from the design of learning activities to cultural and psychological factors in student learning and achievement.

CTL provides confidential and supportive services to individual faculty members at their request, assisting with reviews of teaching evaluation data and improvement of classroom presentations and activities. It advises faculty on strategies for managing learning activities such as student discussions, group work, and online discussions. Working with other campus units such as Instructional Technology Services, CTL assists faculty to apply sound principles of learning psychology to instructional delivery systems and environments including video, multimedia, Web sites, and BlackBoard, the university's course management system.

## College Readiness Programs José Preciado, Director

The College Readiness Programs serves to assist students in acquiring reading, writing, critical thinking, and mathematical reasoning skills necessary for success in university study through direct services to students and professional development services for educators. All of our programs contribute to San Diego State University's goal of maintaining a diverse student population and meet both CSU and SDSU strategic objectives to reduce the remediation rates of college freshmen.

## Compact Scholars Program (CSP) Janet Osterbye, Director

The Compact Scholars Program (CSP) is the postsecondary component of the Compact for Success Partnership between the Sweetwater Union High School District and San Diego State University. The CSP will advance the learning and development of Compact students with their involvement in undergraduate research programs, study abroad, community based service-learning activities, and student life services focused on success in college. The program is designed to enhance students' academic and social integration to ensure that students are taking full advantage of the array of opportunities that the campus has to offer to meet their needs and interests. The first group of Compact Scholars will matriculate at San Diego State University in 2006.

## Faculty-Student Mentoring Program (FSMP) José Preciado, Director

The nationally recognized Faculty-Student Mentoring Program (FSMP) is designed to provide academic and personal support for entering freshmen and transfer students. Directed by Faculty Mentors in each college, at the Imperial Valley Campus, and Educational Opportunity Program trained, upperclassmen provide one-on-one mentoring. At weekly meetings, mentors serve as guides to assist proteges learn the rules, regulations, and activities on a large urban campus.

The Faculty-Student Mentoring Program works to retain students at the university by developing supportive relationships with fellow students, faculty, and staff. By assisting students in their transition to college life, the mentoring program helps students learn about campus resources, promotes academic excellence, encourages campus involvement, and enhances the knowledge and skills necessary for the completion of their academic goals. With a successful transition into the campus community, students increase their self-confidence and often become future student mentors.

Each college program within the FSMP prides itself on providing services that are especially enriching for the particular group of students that it is charged to serve. In addition, the Colleges of Business, Professional Studies and Fine Arts, and Sciences provide weekly workshops for students to enhance their knowledge of university resources, academic skills, and social opportunities. Students participating in those programs may earn university credit.

For more information about the mentoring program, visit our Web site at http://www-rohan.sdsu.edu/dept/sdsutrio/fsmp/, call 619-594-2209, or e-mail sioson@mail.sdsu.edu.

## People, Information, Communication, and Technology Program (pICT) Catherine J. Atkins, Director

The People, Information, Communication, and Technology Program (pICT), supported by SDSU's Qualcomm Institute for Innovation and Educational Success helps faculty and students develop a deeper understanding of what it means to be an educated person in an age when technology is continually reshaping opportunities for interacting with complex disciplines and diverse communities.

All students, regardless of major, should graduate from SDSU with the ability to apply a principled understanding of diverse disciplines to identify opportunities and goals, to define and solve problems, to communicate constructively with diverse populations around the globe, to make wise use of technology, to integrate information from multiple sources and perspectives, and to make responsible and humane decisions.

Drawing on the diverse experience and knowledge of SDSU students and faculty, the pICT program provides contexts in which students can develop the knowledge and skills, and the love of learning they will need to succeed as life-long learners amidst the challenges of a rapidly changing world.

## Thomas B. Day Freshman Success Programs Maureen K. Sipp, Interim Director

Endowed by Bernard and Dorris Lipinsky, the Thomas B. Day Freshman Success Programs offer first-year students opportunities that help lay a strong foundation for successful attainment of their academic goals. In order to serve the whole student, the Thomas B. Day Freshman Success Program provides its programs through partnerships involving both Academic and Student Affairs.

University Seminar. Offered each fall semester, this one-unit elective course (General Studies 100) provides new students the opportunity to interact with faculty in a small group setting within an academic framework. Students learn how to communicate effectively with professors, gain experience in goal setting and academic planning, and hone their critical thinking skills. The curriculum includes special sessions acquainting students with vital campus resources including the library, academic advising, career planning, and health and wellness services. Visit http://www.sdsu.edu/freshmansuccess or call 619-594-3212 to learn more.

Learning in Communities (LINC) Program. The Learning in Communities (LINC) Program offers students a set of linked academic courses designed to help first-year students adapt to SDSU academic standards, connect to the campus, and achieve their academic goals. Based on the suggestions in their Major Academic Plan, students preenroll in a LINC that includes a Rhetoric and Writing course, at least one of their required first-year courses, which become the core around which they build their semester schedule. The LINC program is especially beneficial for undeclared students or those students who are uncertain about their chosen major. Included in every LINC package is a section of University Seminar; all courses in the package earn academic credit. To learn more call 619-594-3212 or visit http:// www.sdsu.edu/freshmansuccess.

Living/Learning Community (LLC). The LLC at Maya and Olmeca is a residential option in which first-year students live together. Students choosing this option are enrolled in a LINC package related to their academic focus. This program is especially beneficial for undeclared students or those students who are uncertain about their chosen major. In the LLC students take advantage of special advising, workshops, and academic support services. They also enjoy comfortable living accommodations including a computer lab, study lounge, and on-site classrooms, all designed to foster a community among peers and a connection to the campus. Visit http:// www.sdsu.edu/housing to learn more about this housing option or contact the Thomas B. Day Freshman Success Programs at 619-5943212 or http://www.sdsu.edu/freshmansuccess.

## University Honors Program Stacey Sinclair, Assistant Director

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

Qualified students may apply upon admission to the university by contacting the Division of Undergraduate Studies, AD-101, 619-594-2872. Eligibility at entrance is determined by an SAT score of
approximately 1250 or above (ACT 28), or a high school GPA of 3.7, including successful completion of advanced high school courses; later eligibility is determined by a superior GPA at this university and is subject to space limitations. Transfer agreements exist with a number of community college honors programs. For additional information consult the Web site at http://www.sdsu.edu/honors.

## 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.


# Division of Graduate Affairs 

# OFFICE: Manchester Hall 3320 

TELEPHONE: 619-594-5213
FAX: 619-594-0189
E-MAIL: gra@mail.sdsu.edu

## Organization and Administration

The Division of Graduate Affairs is under the jurisdiction of the Office of the Provost whose administrative officers are the vice president for research and the dean of the Division of Graduate Affairs. In coordination with the Graduate Council, the division has responsibility for all graduate curricula and policy matters governing graduate study at San Diego State University. The dean of the Division of Graduate Affairs serves as chair of the Graduate Council.

The Division of Graduate Affairs, in conjunction with Graduate Admissions, admits all students to the university. The Division of Graduate Affairs authorizes 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 dean of the Division of Graduate Affairs is the appropriate university authority for the administration of all matters related to graduate admissions, academic status, and 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 provide instruction for graduate students in the liberal arts and sciences, in applied fields, and in the professions, including the teaching profession.

Doctor of Philosophy degrees and a professional doctorate (Au.D.) degree 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 Claremont Graduate University. The Doctor of Education degree (Ed.D.) is awarded jointly by the board of trustees of The California State University and the trustees of the University of San Diego in the names of San Diego State University and the University of San Diego.

## Doctor of Philosophy

The Doctor of Philosophy degree is offered in the following fields:
Biology (Cell and Molecular) Engineering Sciences/Applied Mechanics Chemistry Geography
Clinical Psychology
Computational Science
Ecology
Education
Language and Communicative Disorders
Mathematics and Science Education
Public Health/Epidemiology
Public Health/Health Behavioral Science
Doctor of Education
The Doctor of Education degree is offered in the following fields:
Educational Leadership
Educational Technology
Teaching and Learning

## Professional Doctorate

The professional doctorate degree is offered in the following field: Audiology

## Educational Specialist

Ed.S. in School Psychology

## Professional Master's Degrees

Master of Business Administration
Master of City Planning
Master of Engineering
Master of Music
Master of Public Administration
Master of Public Health
Master of Social Work
Master of Fine Arts
The Master of Fine Arts degree is offered in the following fields: Art
Creative Writing
Theatre Arts

## Master of Arts

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

| Anthropology | Geography |
| :--- | :--- |
| Art | History |
| Asian Studies | Interdisciplinary Studies |
| Biology | Kinesiology |
| Chemistry | Latin American Studies |
| Chicana and Chicano | Liberal Arts and Sciences |
| Studies | Linguistics |
| Communication | Mathematics |
| Economics | Music |
| Education | Philosophy |
| English | Physics |
| French | Political Science |

Rhetoric and Writing
Studies
Sociology
Spanish
Speech, Language, and Hearing Sciences
Television, Film and New Media Production Theatre Arts
Women's Studies

## Master of Science

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

Accountancy
Aerospace Engineering
Applied Mathematics
Astronomy
Bioengineering
Biology
Biomedical Quality Systems
Business Administration
Chemistry
Child Development
Civil Engineering

Computational Science Mechanical Engineering Computer Science Microbiology
Counseling Nursing
Criminal Justice and Nutritional Sciences Criminology Electrical Engineering Exercise Physiology Geography
Geological Sciences Gerontology Interdisciplinary Studies

Physics
Psychology
Public Health
Radiological Health
Physics
Regulatory Affairs Rehabilitation Counseling Statistics

## Concurrent Degrees

Concurrent degrees are offered in the following fields:
Master of Business Administration and Juris Doctor
Master of Business Administration and Master of Arts in Latin American Studies
Master of Public Health and Master of Social Work
Master of Public Health and Master of Arts in Latin American Studies Master of Science in Nutritional Science and
Master of Science in Exercise Physiology
Master of Social Work and Juris Doctor

## Admission to Graduate Study

Admission to San Diego State University for graduate study is a competitive process and open to those applicants who the university judges to be fully qualified to benefit from graduate study. The requirements listed below are the minimum required for admission to the university. Many programs have established additional requirements. Potential applicants should refer to the Graduate Bulletin under the departmental listings. Students in their final baccalaureate year who are contemplating graduate study are also advised to contact the departmental offices as soon as possible for information and advice. Some departments stop reviewing applications earlier than others because space is limited.

## Application Procedures

Applicants for any type of graduate or postbaccalaureate status (advanced degree applicants and those seeking credentials or advanced certificates) must file an electronic CSU Graduate Admission Application with Graduate Admissions within the appropriate filing period. Applicants may apply to only one graduate or postbaccalaureate program. Applicants who graduated from San Diego State University 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 CSU campus on each application, redirection to alternative campuses or later changes of campus choice will be minimal. In the event that a postbaccalaureate 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. All masters, doctoral, and credential students should consult the department or program listing in the Graduate Bulletin for the specific department and/or program application instructions. In all cases, applicants should send official transcripts and examination scores to Graduate Admissions only. Students are required to apply online. Online applications are available at http:// www.csumentor.edu/AdmissionApp/.

Paper applications are no longer printed for general distribution. If an applicant does not have access to a computer or in the case of other extenuating circumstances preventing an applicant from filing an electronic admission application, the applicant should contact Graduate Admissions to make special arrangements.

## General Admission Requirements

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 2.85 (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 warrant such action. The Division of Graduate Affairs is the only official admissions authority for graduate study at San Diego State University. See the Graduate Bulletin for further details.

Faculty may register for courses in accordance with the Division of Graduate Affairs policies. Faculty holding the rank of instructor and above may not take courses in their department.

## Admission Categories

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)

Exchange students (non-foreign), visitors from other CSU campuses, and other transitory students may be admitted for one semester as unclassified graduate students.

## 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. A student must also meet the professional, personal, scholastic, and other standards prescribed by the appropriate department and the Graduate Council. The applicant should consult 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 that 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. See the Graduate Bulletin for other possible exemptions.)
(b) Satisfy the special departmental or college requirements as stated in Part Three of the Graduate Bulletin under "Courses and Curricula."
(c) 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 courses numbered 600 and above. Such admission does not imply that a student will be advanced to candidacy for an advanced degree.

## Graduate Standing (Conditional 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. Students who have not completed the GRE/GMAT requirement and/or the TOEFL/ IELTS requirement will not be eligible for conditional admission. Not more than 15 semester units may be assigned to satisfy undergraduate deficiencies in the major and normally all course conditions must normally be met within one academic year 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 should request that the program graduate adviser file a change of status form with the Division of Graduate Affairs.

## 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 SDSU Bookstore and also available on the Web site at:
http://coursecat.sdsu.edu/bulletin/

# 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.

Students who hold undergraduate degrees who wish to take courses for professional schools may do so through Open University in the College of Extended Studies.

## 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. Economics 338; History 545; Political Science 301A-301B, 346, 347A-347B. Additional: Economics 380, History 536, Political Science 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.

## Preprofessional Health Advising Office

The preprofessional health advising office is responsible for advising premedical, predental, preveterinary, and allied health students in their preparation for 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 preprofessional health advising office provides the university-sanctioned SDSU committee letter. The advising office is located in GMCS 323; 619-594-6638;
http://www.sci.sdsu.edu/preprof/.

## Predental Curriculum

The predental program is pursued in conjunction with a degree program. Students ordinarily elect to concentrate in biology, chemistry, microbiology, or psychology with a major in one area and selected coursework in the others. Other departmental majors are permissible, however. Predental students should meet each semester with their major departmental academic adviser to obtain approval for their program for the coming semester. In addition, predental students should confer with the predental adviser at least once each semester to discuss other preparation for dental school.

College preparation. High school students planning to enter dentistry should include in their high school program the following subjects: elementary algebra, 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.

Admissions tests given by the American Dental Association should be taken not later than fall term one year before admission. Since the test is now given only in computer format, candidates should check the web for current information on where to take the test.

San Diego State University offers the opportunity to obtain a committee letter for students applying to health professional schools. In many instances, a health professional school will state in its secondary application that, if a student's undergraduate or postbaccalaureate school offers a committee letter, a copy of that letter is required as part of the application process. In order to obtain a committee letter, you must open a file with the Preprofessional Health Advising (PPHA) Office and complete all the steps of the committee procedure, which starts a year-and-a-half before applying. Therefore, it is imperative that you register with the PPHA office as soon as you begin classes at SDSU. The official committee letter, available only from the PPHA office, is SDSU's only 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 request forms are available in the preprofessional health advising office. A publication: ADEA Official Guide to Dental Schools is available at the SDSU Bookstore or from the American Association of Dental Schools.

The preprofessional health adviser will be available to high school or transfer students by appointment during the summer before matriculation. All predental students should establish a personal file in the Preprofessional Health Advising (PPHA) Office, GMCS 323; 619-594-6638; http://www.sci.sdsu.edu/preprof/.

## 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 meet each semester with their major departmental academic adviser to obtain approval for their program for the coming semester. In addition, premedical students should confer with the premedical adviser at least once each semester to discuss other preparation for medical school.

College preparation. High school students planning to enter medicine should include in their high school program the following subjects: elementary algebra, 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 remains high. 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 only sparingly in nonscience courses.

Nearly all medical schools also require applicants to take the MCAT, which is now available by computer. 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.

San Diego State University offers the opportunity to obtain a committee letter for students applying to health professional schools. In many instances, a health professional school will state in its secondary application that, if a student's undergraduate or postbaccalaureate school offers a committee letter, a copy of that letter is required as part of the application process. In order to obtain a committee letter, you must open a file with the Preprofessional Health Advising (PPHA) Office and complete all the steps of the committee procedure, which starts a year-and-a-half before applying. Therefore, it is imperative that you register with the PPHA office as soon as you begin classes at SDSU. The official committee letter, available only from the PPHA office, is SDSU's only formal endorsement of your candidacy. Three to seven individual 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 SDSU Bookstore). Since most students seek admission to an average of twenty medical schools, this book should be consulted during the year of application.

Osteopathic medical schools require basically the same minimum undergraduate program as allopathic schools. Most schools also request letters of evaluation from practicing osteopathic physicians.

The preprofessional health adviser will be available to high school or transfer students by appointment during the summer before matriculation. All premedical students should establish a file in the Preprofessional Health Advising (PPHA) Office, GMCS 323; 619-5946638, http://www.sci.sdsu.edu/preprof/.

## 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 meet each semester with their major departmental academic adviser to obtain approval for their program for the coming semester. In addition, preveterinary students should confer with the preveterinary adviser at least once each semester to discuss other preparation for veterinary medicine school.

College preparation. High school students planning to enter veterinary medicine should include in their high school program the folIowing subjects: elementary algebra, 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 U.S. schools now accept nonresidents.

San Diego State University offers the opportunity to obtain a committee letter for students applying to health professional schools. In many instances, a health professional school will state in its secondary application that, if a student's undergraduate or postbaccalaureate school offers a committee letter, a copy of that letter is required as part of the application process. In order to obtain a committee letter, you must open a file with the Preprofessional Health Advising (PPHA) Office and complete all the steps of the committee procedure, which starts a year-and-a-half before applying. Therefore, it is imperative that you register with the PPHA office as soon as you begin classes at SDSU. The official committee letter, available only from the PPHA office, is SDSU's only formal endorsement of your candidacy. Two or three additional letters from veterinarians and science 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 in the SDSU Bookstore.

The preprofessional health adviser will be available to high school or transfer students by appointment during the summer before matriculation. All preveterinary students should establish a file in the Preprofessional Health Advising (PPHA) Office, GMCS 323; 619-5946638, http://www.sci.sdsu.edu/preprof/.

## Allied Health Professions

The allied health professions served by the Preprofessional Health Advising (PPHA) Office include chiropractic medicine, dental hygiene, optometry, pharmacy, physician assistant, naturopathic, and podiatric medicine. San Diego State University does not offer specific degree programs in these fields. Prephysical therapy advising is in the Department of Exercise and Nutritional Sciences, ENS 331; telephone 619-594-5161 (Edward P. Franz).

Prechiropractic Medicine, Preoptometry, Prepharmacy, Prephysician Assistant, Prenaturopathic, 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.

Academic Requirements for Entrance to a Professional Degree Program in One of the Above Allied Health Professions. Students should see their academic adviser and the preprofessional adviser to ensure that all entrance requirements are met. Students interested in the above allied health professions (except for prephysical or occupational therapy) are encouraged to open a file early in their academic careers at the Preprofessional Health Advising (PPHA) Office.

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 Kinesiology (emphasis in 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 201A, 210, 212, 336, and 436; Chemistry 200 and 201; Physics 180A-180B, 182A-182B; and Psychology 101, 270, and 350. Information regarding the required courses for specific physical therapy schools is available through the Department of Exercise and Nutritional Sciences. Each student should consult the major adviser for the level of course required when there are alternatives.

Prephysical Therapy 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 201B and 590; Chemistry 130; Exercise and Nutritional Sciences 303, 304, 307; Mathematics 121; Psychology 230.

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

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.

## 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. Courses taken for advanced certificate program may be applied to a master's degree with the approval of the graduate adviser.

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

## Continuing Education

## Functions

The California State University regards the credit-bearing programs offered through Extended Education 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 meet the standards of quality that the institution sets for its other programs and courses, with regard to resources, faculty, level of instruction, evaluation, and support services.

The College of Extended Studies at San Diego State University serves as the principal university liaison with the adult community and provides a wide variety of traditional and nontraditional, credit and noncredit, educational experiences designed to fit the life style and expectations of lifelong learners. 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 the divisions of Extension, Professional Development, American Language Institute, and Administrative Services. The programs are operated on a self-support basis since state funds are not provided for Continuing Education activities.

## Open University

Most regular on-campus courses are open to students through enrollment in Open University. Open University courses earn nonmatriculated resident credit and enrollment for students not seeking an advanced degree or advanced certificate and does not require formal admission to the university. Enrollment in courses through Open University is on a space available basis with the consent of the instructor and approval of the chair of the department in which the course is offered. Students pay College of Extended Studies fees for these units. The course repeat policy applies to courses repeated through Open University. Consult the College of Extended Studies or the current Class Schedule for complete details on Open University qualifications and registration procedures. A maximum of 24 units earned through Open University, Extension, and credit-by-examination combined may be used toward total units required for the bachelor's degree.

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 550 on the Test of English as a Foreign Language (TOEFL) or its equivalent.
2. Foreign students with $1-20$ visas from another university.
3. SDSU matriculated students.
4. Disqualified students - Undergraduate students who have been disqualified from SDSU will not be allowed to attend Open University or classes through Special Sessions until one year from the date of their disqualification. Graduate students will not be allowed for one semester following disqualification.

## Limitations on Open University and Special Sessions Credit

Matriculated graduate students may not enroll in courses through Open University.

Students who have not been admitted to the university may enroll in on-campus courses through Open University during the regular semester on a space available basis with the approval of the course
instructor and the department chair. Courses taken through Open University prior to admission to the university may be transferred to meet graduate degree requirements with the approval of the graduate adviser and the graduate dean and are normally limited to nine units depending on the degree objective (see Transfer Credit).

Special Session programs are offered through the College of Extended Studies. A matriculated graduate student who is not in a special sessions program may only take courses through Special Session if the course is not being offered through the regular session, if the student must take the course as part of their program of study, and if the course will not be offered again prior to the student's planned graduation date. In these cases, if the student is taking regular session courses, he or she will have to pay special session fees and regular session fees given they are enrolled in the regular session.

## 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. Students successfully completing ALI's English for Academic Purposes program with positive ALI recommendations can waive the TOEFL requirements for graduate programs at SDSU as well as several other partner colleges.

Programs offered by ALI are as follows:

## English for Academic Purposes

An 11- to 17-week course for students planning to enter San Diego State or other colleges or universities. Classes are offered in reading, writing, grammar, academic listening/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. Students may also specialize in Pre-MBA preparation.

Highly advanced students may register for three to 12 units of SDSU courses in addition to their English classes.

## Intensive English Communications

A 3- 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. 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; American TEFL (Teaching English as a Foreign Language); Seminar for International Teachers of English; Certificate in Business Program; and Pre-MBA Preparation; are offered.

## Summer Special Programs

A number of special short-term programs are offered by the ALI each summer for groups (e.g., Management and Business English, Business Seminar for International Executives, Seminar for International Teachers of English, English Language Study Tours).

## Services

All students at the institute are offered visa and immigration advising, 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. The Web site address is http://www.americanlanguage.org.

## Osher Lifelong Learning Institute

The Osher Lifelong Learning Institute offers instructor-led university inspired courses for people age 50 and better who are interested in meaningful intellectual and social engagement. Classes are held on the SDSU campus during the day and include courses in literature, science, history, music, current events, religion, sociology, and more. Courses are intellectually stimulating without the pressure of grades, tests, or papers. For more information call 619-594-2863, e-mail osher@mail.sdsu.edu or visit the Web site at:
http://www.neverstoplearning.net/osher

## Travel Study Programs

The college offers matriculated SDSU students and the general public the opportunity to study language and culture in foreign countries while earning SDSU credit. In addition, travel study programs include non-credit wilderness trips which enable the public to explore the historical sites and natural wonders of California, Alaska, Arizona, and Mexico.

For further information contact the director of Travel Study Programs at 619-594-5154.

## Certificate Programs

Certificate programs provide educational development to meet the needs of the workforce. Certificates are focused on the relevance of career enhancing specialization and are recognized by most employees as a significant academic accomplishment. A complete listing of certificate programs is in the section of this catalog on "Curricula Summary."

## 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 programs. 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 extension courses are now offered online. For information on these courses visit the Web site at http://www.neverstoplearning.net. Some one-unit weekend workshops are also offered throughout the year. These courses are listed in a special Extended Studies Catalog published three 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 SDSU bachelor's degree requirements is 24 units. Courses offered through Extension that are not offered on campus or are not required in a student's program of study will appear on the SDSU transcript but are not transferable for graduate credit. Graduate students who enroll in these courses normally do so for personal enrichment only. Courses offered through Extension numbered 500899 may be transferred with the approval of the graduate adviser and the Dean of the Division of Graduate Affairs.

## Professional Development

The Division of Professional Development provides business and industry 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 process improvement and leadership techniques that ensure they will add to the productivity and profitability of their organizations.

## Custom On-Site Training

SDSU's Professional Development Division of the College of Extended Studies develops and implements on-site training programs that meet specific needs of the San Diego business community.

The programs serve medium as well as large businesses and organizations with topics ranging from team building and communication skills to supervision, leadership, process improvement, and project management.

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

The programs offer significant value for the time invested and are designed with quality and adaptability in mind.

## Professional Development Online (PDOL)

Meeting the needs of our students, the College of Extended Studies has developed a wide offering of professional development courses that can be completed on the Internet. Programs are available in key business areas such as leadership, finance, project management, and managing teams. These online programs typically consist of five to ten courses, and can be completed at the student's own pace.

## Seminars/Workshops/Certificates

The division develops and coordinates practical one- to five-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 subjects, such as leadership, finance, marketing, lean six sigma, and customer service issues related to global competitiveness. In addition, more than 30 evening certificate programs are offered in specific functional or industry areas, such as human resources, meeting and events planning, casino gaming, and contract management.

# Admission and Registration 


#### Abstract

Admission criteria listed in this catalog is for fall 2006. For the most up-to-date admission criteria, visit the SDSU Web site at http://www.sdsu.edu/admissions.


## Reservation

San Diego State University reserves the right to select its students and deny admission to the university or any of its programs as the university, in its sole discretion, determines appropriate based on the applicant's suitability and the best interests of the university.

## Undergraduate Admission Policy

Admission to San Diego State University is selective. SDSU has been granted impacted status by the California State University system in order to assure that the educational experience, including the availability of classes and the array of services provided, of each enrolled student is not compromised by over enrollment. To this end, admission criteria OVER AND ABOVE THOSE REQUIRED BY THE CALIFORNIA STATE UNIVERSITY are now in effect. Meeting CSU minimum admission criteria will not guarantee admission to San Diego State University.

## Undergraduate Application Filing Period

Fall Semester

October 1 - November 30

## Undergraduate Application Procedures

Prospective students, applying for full-time or part-time undergraduate programs of study, in day or evening classes, must file a complete undergraduate application during the application filing period (see above). The preferred method of application is through http:// www.csumentor.edu. The CSUMentor system allows students to browse through general information about CSU's 23 campuses, view multimedia campus presentations, send and receive electronic responses to specific questions, and apply for admission and financial aid. If you cannot apply online, you should contact the Office of Admissions to make special arrangements. The \$55 nonrefundable application fee must be in the form of a check or money order payable to the California State University or by credit card and may not be transferred or used to apply to another term. The applications of persons denied admission to an impacted campus may be re-routed to another campus, but only if the applicant is CSU eligible.

It is essential that the application be filled out completely and accurately. Misrepresenting oneself on the application will result in a revocation of admission regardless of when the misrepresentation is discovered.

## Application Acknowledgment

You will receive an e-mail acknowledgment from San Diego State University verifying receipt of your application.

## Supplementary Admission Criteria

Each campus with impacted programs uses supplementary admission criteria in screening applicants. Supplementary criteria may include ranking on the freshman eligibility index, the overall transfer grade point average, completion of specified prerequisite courses, and a combination of campus-developed criteria. First-time freshman should take the SAT Reasoning Test or the ACT as early as possible, but no later than October of their senior year of high school.

The supplementary admission criteria used by the individual campuses to screen applicants appear periodically in the November CSU Review.

## Undergraduate Admission Requirements

## First-Time Freshman Requirements

SDSU Service Area (San Diego County and Imperial County high school districts south of state route 56 and extending eastward)

1. Complete the pattern of college preparatory subjects requirements with grades of C or higher. See "Subject Requirements."
2. Must submit SAT Reasoning Test or ACT test scores (regardless of high school grade point average).
3. Must be a high school graduate.
4. SDSU service area applicants who meet the minimum CSU eligibility index (see "Eligibility Index") of 2900 will be admitted to SDSU.

## Outside SDSU Service Area.

1. Complete the pattern of college preparatory subjects requirements with grades of C or higher. See "Subject Requirements."
2. Must submit SAT Reasoning Test or ACT test scores (regardless of high school grade point average).
3. Must be a high school graduate.
4. Have a competitive CSU eligibility index (see "Eligibility Index"). The average eligibility index of admitted freshmen for fall 2005 was 4048 ( 976 based on ACT). The average high school grade point average was 3.63. The average SAT Reasoning Test total score was 1144; the average ACT composite score was 24.

## Test Scores

Freshman applicants must submit scores from either the Scholastic Aptitude Test (SAT) or the American College Test (ACT). You should take the test as early as possible, but not later than early October if applying for fall admission. You may get registration forms and dates for these tests from your high school or college counselors or from the SDSU Student Testing, Assessment and Research Office. Or, you may write to or call:

The College Board (SAT Reasoning Test)
Registration Unit, Box 6200
Princeton, New Jersey 08541-6200
609-771-7588
http://www.collegeboard.org

ACT Registration Unit P.O. Box 414 Iowa City, Iowa 52240 319-337-1270 http://www.act.org

Official scores should be requested from the testing service at the time you register and sent directly to SDSU (SDSU's SAT Reasoning Test code is 4682; SDSU's ACT code is 0398)

## Eligibility Index

The eligibility index is the combination of a high school grade point average and a score on either the American College Test (ACT) or the Scholastic Aptitude Test (SAT Reasoning Test). Beginning with admission for fall 2004, a grade point average is based on grades earned in courses taken during the final three years of high school that satisfy all college preparatory "a-g" subject requirements, and bonus points for
approved honors courses (excluding grades earned in physical education and military science courses).

Up to eight semesters of honors courses taken in the last two years of high school, including up to two approved courses taken in the 10th grade, 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. No honor points are given for $D$ or $F$ grades.

A CSU eligibility index (EI) can be calculated by multiplying a grade point average by 800 and adding a total score on the SAT Reasoning Test. Students who took the ACT, multiply the grade point average by 200 and add ten times the ACT composite score.

## Subject Requirements

San Diego State University requires that first-time freshman applicants complete, with grades of C or better, a comprehensive pattern of college preparatory study totaling 15 units. A "unit" is one year of study in high school.

1. Two years of social science, including one year of U.S. history, or U.S. history and government.
2. Four years of English.
3. Three years of mathematics (algebra, geometry, and intermediate algebra).
4. Two years of laboratory science (one biological and one physical, both with laboratories).
5. Two years in the same foreign language (subject to waiver for applicants demonstrating equivalent competence).
6. One year of visual and performing arts (must be from a single VPA area): art, dance, drama/theatre, or music. (Must be a year-long course for fall 2007 admission.)
7. One year of electives, selected from English, advanced mathematics, social science, history, laboratory science, foreign language, visual and performing arts.
For fall admission, you must complete your subject requirements by the spring term before enrollment at SDSU.

## Subject Requirement Substitution for Students with Disabilities

Applicants with disabilities are encouraged to complete college preparatory course requirements if at all possible. If you are judged unable to fulfill a specific course requirement because of your disability, alternate college preparatory courses may be substituted for specific subject requirements. Substitutions may be authorized on an individual basis after review and recommendation by your academic adviser or guidance counselor in consultation with the director of a CSU disabled student services program. You should be aware that failure to complete courses required for admission may limit your later enrollment in certain majors, particularly those involving mathematics. For further information and substitution forms, please call the director of disabled student services at your nearest CSU campus.

## Freshmen Who are Graduates of High Schools in Foreign Countries

Graduates of secondary schools in foreign countries must be judged to have equivalent academic preparation and abilities. Please submit your high school transcript with your CSU application.

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 score of 550 or higher (using the paper version) or 213 or higher (using the computer version) or 79 or higher (using the Internet version) on the Test of English as a Foreign Language (TOEFL), or 6.5 or better on the International English Language Testing System (IELTS).

## Early Notification of Admission

The university may offer early notification of admission to first-time freshman applicants who report an exceptional high school record and test scores.

## Admitted First-Time Freshman

All first-time freshman applicants who receive an offer of admissions are admitted provisionally. Offers of admission may be rescinded if senior year work is not completed at a satisfactory level or if any requirements were misrepresented on the application.

## 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 specific course and does not constitute the right to continued enrollment.

## Transfer Student Requirements

Students who have completed fewer than 60 transferable semester college units (fewer than 90 quarter units) are considered lower division transfer students. Students who have completed 60 or more transferable semester college units (90 or more quarter units) are considered upper division transfer students. Students who complete college units during high school or through the summer immediately following high school graduation are considered first-time freshmen and must meet those admission requirements. Transferable courses are those designated for baccalaureate credit by the college or university offering the courses

## Lower Division Transfers

San Diego State University is not accepting applications from lower division transfer students.

## Upper Division Transfers

A student is considered an upper division transfer student if he/ she has completed 60 or more semester units (or 90 or more quarter units) of transferable baccalaureate-level college work. In recent years, as the number of applicants has far exceeded the number of spaces available, it has become necessary to adopt admission standards which are more demanding than the minimum California State University (CSU) requirements.

Transfer students will be admitted to a premajor or major. To be considered for admission to SDSU, transfer applicants should meet the following minimum CSU eligibility requirements and SDSU requirements. Applicants not meeting the following requirements will be ranked based on how closely they meet the criteria and considered for admission on a space-available basis.

1. Apply during the CSU initial admission application filing period, October/November 2005 for fall 2006 admission. Submit a supplemental application at http://www.sdsu.edu/portal between December 15, 2005 and January 15, 2006.
2. Complete a minimum of 60 transferable semester units by the end of spring 2006
3. Complete all lower-division General Education (GE) by the end of spring 2006. GE requirements in written communication, oral communication, critical thinking, and mathematics must be completed with a " $C$ " or higher in each course.
4. By the end of spring 2006, complete all Preparation for the Major courses that are articulated or approved as equivalent (see online Transfer Admission Planner) and offered at the college(s) attended in the year prior to transfer. Some impacted majors have specific grade expectations for individual courses or combination of courses that must be met.
5. GPA Requirements:
a. Service area* and outside-the-service-area applicants must meet the GPA required for the impacted major. Nonimpacted majors require a 2.0.
b. Outside-the-service-area applicants will also be selected based on a GPA ranking that may be higher than the impacted major GPA. For fall 2005, the average transfer GPA was 3.16.
c. Applicants must meet the required GPA at the time of application and they must maintain the GPA through the end of spring 2006.

* You are in SDSU's service area if $50 \%$ of your coursework has been completed at a regionally accredited institution located south of Interstate 56 Imperial Valley College.
NOTE:
- Transfer students who are admitted to a premajor or major must petition if they decide to request a change of major after enrollment at SDSU.
- Music and dance major applicants must audition for acceptance to the major.
- SDSU is not accepting applications for second bachelor candidates.
- There is an additional application and additional ranking criteria for nursing applicants.


## Admitted Upper Division Transfers

Transfer admission decisions are made based on information reported on the CSU application and the Transfer Supplemental Application. Offers of admission may be rescinded if work in progress is not completed at a satisfactory level or if any requirements were misrepresented on the application.

## 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 transfer admission. 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.

## 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 in all college work attempted.
4. Test results verifying completion of the current San Diego State University mathematics and writing competency requirements. Current competency requirements and minimum test scores are published in the 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 and will include an assessment of basic skills in the English language and mathematical computation.

## Readmission

Students interested in readmission to SDSU should visit the Web site at http://www.sdsu.edu/admissions for the most up-to-date admission criteria. Criteria differ for students who left the university in good academic standing versus those who left on academic probation or who were academically disqualified.

## International (Foreign) Student Admission Requirements

San Diego State University offers opportunities for graduate and undergraduate study to those foreign students whose academic preparation meets the standards for admission. "Foreign students" include those who hold US visas as students, exchange visitors, or in other nonimmigrant classifications. SDSU uses separate requirements in the admission of foreign students. Priority in admission is given to residents of California.

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 documents, transcripts, and test scores for undergraduate admissions must be received by the Office of Admissions no later than May 1 for the fall 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.

Applicants whose major education has been in a language other than English must score 550 or higher (using the paper version) or 213 or higher (using the computer version) or 79 or higher (using the Internet version) on the Test of English as a Foreign Language (TOEFL), or 6.5 or better on the International English Testing System (IELTS). These tests are 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 or http://www.TOEFL.org.

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 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 course(s) during their first year. Foreign students admitted to the university will be subject to the same competency and placement examinations and standards as govern the rest of the student population.

Insurance Requirement: As a condition of receiving an I-20 or IAP66 form, all F -1 and J -1 visa, applicants must agree to obtain and maintain health insurance as a condition of registration and continued enrollment. Such insurance must be in amounts as specified by the United States Information Agency (USIA) and NAFSA: Association of International Educators. The campus president or designee shall determine which insurance policies meet these criteria. Further information may be obtained from the International Student Center.

American Language Institute: If English instruction is needed prior to admission to San Diego State University, 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 enrolling in the American Language Institute, a conditional admission may be available. Conditional admission 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) or IELTS (International English Language Testing System) score to qualify for admission to the university. After transcripts of their academic work have been evaluated, 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 achieving appropriate TOEFL or IELTS scores and receiving training at the American Language Institute.

Housing and Scholarship: 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 Office of Housing Administration, 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 section of this catalog on Financial Aid and Scholarships.

Upon arrival at San Diego State University, the student should contact the International Student Center.

## TOEFL or IELTS Requirement

All undergraduate applicants, whose native language is not English and who have not attended schools at the secondary level or above for at least three years of full-time study (only transferable courses count toward a student's full-time status) where English is the principal language of instruction, must present a score of 550 or higher (using the paper version) or 213 or higher (using the computer version) or 79 or higher (using the Internet version) on the Test of English as a Foreign Language (TOEFL), or 6.5 or better on the International English Language Testing System (IELTS). Some majors may require a higher score. Some campuses may also use alternative methods of assessing English fluency.

## Filing of Documents

If admitted, official documents for international applicants must be on file no later than May 1 for fall admission. (See "Filing of Records" for details).

## Other Applicants

Applicants not admissible under one of the above provisions should enroll in a community college or other appropriate institution

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.

## Filing of Records

File Official Transcripts. You must file the following official transcripts with the Office of Admissions.

1. Transcripts from all high schools attended (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.)
For a transcript to be official, it must bear the high school or college seal and remain in its original sealed envelope. All records or transcripts received by the university become the property of the university and will not be released nor will copies be made.

## Deadlines:

First-time Freshmen

- May 1 - transcripts including fall term grades.
- July 15 - transcripts of spring term grades.


## Transfers

- May 1 - submit transcripts including fall term grades and work in progress.
- June 30 - submit transcripts of spring term grades.

Note: All needed documents for international applicants must be on file no later than May 1 for the fall semester.

## Graduate and Postbaccalaureate Application Procedures

All graduate and postbaccalaureate applicants (e.g., joint Ph.D., Ed.D., Au.D., and Ed.S. applicants, master's degree applicants, those seeking credentials, or advanced certificates) must file a complete graduate application as described in the CSU graduate and post-baccalaureate admission materials at http://www.csumentor.edu. 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. To be assured of initial consideration by more than one campus, it will be necessary to submit separate applications (including fees) to each. Online applications are available at http://www.csumentor.edu.

## Graduate and Postbaccalaureate Admission Requirements

## Admission Requirements

Graduate and postbaccalaureate applicants may apply for a degree objective or a credential or certificate objective. Depending on the objective, San Diego State University will consider an application for admission as follows:

## General Requirements

The minimum requirements for admission to graduate and postbaccalaureate studies at a California State University campus are in accordance with university regulations as well as Title 5, chapter 1 , subchapter 3, of the California Code of Regulations. Specifically, a student shall at the time of enrollment: (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 $2.85(\mathrm{~A}=4.0)$ 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 four following categories (consult the Graduate Bulletin for detailed information):

- Postbaccalaureate Standing (Unclassified) Exchange students, visitors from other CSU campuses, and other transitory students may be admitted for one semester as unclassified graduate students; or
- Postbaccalaureate Standing (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
- Conditional Graduate Standing (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 Standing (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.


## Graduate and Postbaccalaureate TOEFL/IELTS Requirements

All postbaccalaureate applicants, regardless of citizenship, whose native language is not English and 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 or higher (using the paper version) or 213 or higher (using the computer version) or 79 or higher (using the Internet version) on the Test of English as a Foreign Language (TOEFL). Students must obtain a score of 6.5 or better on the International English Language Testing System (IELTS). Individual degree programs may require a higher minimum score. Applicants taking the Computer-Based Test of English as a Foreign Language must present a score of 213 or above. Applicants may be required by a program to 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

San Diego State University is not accepting applications for second bachelor's degrees.

## Intrasystem and Intersystem Enrollment Programs

Students enrolled at San Diego State University have access to courses at other CSU campuses on a space available basis unless those campuses or programs are impacted. This access is offered without students being required to be admitted formally to the host campus and sometimes without paying additional fees. Although courses taken on any CSU campus will transfer to the student's home CSU campus as at least elective credit, students should consult their San Diego State University academic adviser to determine how such courses may apply to their degree programs before enrolling at the host campus.

There are two programs for enrollment within the CSU and one for enrollment between CSU and the University of California or California community colleges. Additional information about these programs is available from the Office of the Registrar.

## CSU Concurrent Enrollment

Matriculated students in good standing may enroll at San Diego State University and a host CSU campus during the same term. Credit earned at the host campus is reported at the student's request to San Diego State University to be included on the student's transcript at the home campus.

## Intersystem Cross Enrollment

Matriculated CSU, UC, or community college students may enroll for one course per term at another CSU, UC, or community college and request that a transcript of record be sent to the home campus.

## Impacted Programs

Many majors at San Diego State University have more students wanting to declare that major than can be accommodated. As such, they are designated as impacted majors. All students who are admitted to SDSU and want to declare an impacted major are placed in a premajor or a major (if all requirements are met at time of admission).

All premajors must meet department-specific criteria to move from the premajor to the major, such as a specified minimum grade point average, completion of prerequisite courses, tests, and completion of a certain number of units.

Criteria are described in the section of this catalog on Courses and Curricula or you may contact the major department for information. Departmental criteria also appear each November in the CSU Review, and made available online at http://www.calstate.edu/AR/csureview/. Information about the supplementary criteria also is sent to program applicants. Visit http://www.sdsu.edu/impactedmajors for further information. Applicants must file applications for admission to an impacted program during the initial filing period. If applicants wish to be considered in impacted programs at more than one campus, they must file an application to each.

The following majors are impacted at San Diego State University:
Art with emphases in Art History, Studio Arts; Art with emphases in Applied Design, Graphic Design, Interior Design, Multimedia, Painting and Printmaking, Sculpture, and Art in Preparation for the Single Subject Teaching Credential; Biology and Microbiology; Business Administration; Child Development; Communication with emphases in Advertising, Public Relations, and General Communication; Criminal Justice Administration; Economics; English and English in Preparation for the Single Subject Teaching Credential in English Language Arts; Foods and Nutrition; Health Science; History; International Business; Journalism; Kinesiology; Liberal Studies; Nursing; Political Science; Psychology; Public Administration; Social Science in Preparation for the Single Subject Teaching Credential; Sociology; Spanish; Television, Film and New Media Production; Theatre.

## 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 submit authentic and official transcripts of all previous academic work attempted. Official transcripts are defined as transcripts that bear the high school or college seal and remain in their original sealed envelope. Failure to file complete, accurate, and authentic application documents by specified deadlines will result in denial of admission, and may result in 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 correct social security numbers in designated places on applications for admission pursuant to the authority contained in Section 41201, Title 5, California Code of Regulations, and Section 6109 of the Internal Revenue Code (26 U.S.C. 6109). The university uses the social security account number to identify students and their records including identification for purposes of financial aid eligibility and disbursement and the repayment of financial aid and other debts payable to the institution. Also, the Internal Revenue Service requires the university to file information returns that include the student's social security number and other information such as the amount paid for qualified tuition, related expenses, and interest on educational loans. This information is used by the IRS to help determine whether a student, or a person claiming a student as a dependent, may take a credit or deduction to reduce federal income taxes.

Students are issued a nine-digit ID number (Red ID) for transactions that include accessing the SDSU WebPortal, registering for classes, meal plans, using library services, using Blackboard, communicating with The Center for Human Resources, financial transactions, and all student services.

## Registration and Requirements for Registration

## Registration

San Diego State University students register online at http:// www.sdsu.edu/portal. On-campus and telephone registration are not conducted. The Class Schedule available at http://www.sdsu.edu/ schedule 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 register until fees are paid. Payment of fees by itself does not constitute registration. A student is considered registered when: 1) fees have been paid, and 2) at least one course has been added prior to the first day of classes

The registration system will check for the satisfactory completion of the following tests and requirements: EPT (English Placement Test); ELM (Entry-Level Mathematics Examination); GSP (Grammar, Spelling and Punctuation Test); and Writing Proficiency Assessment.

The registration system will not allow registration in courses that meet at the same day and time or have overlapping meeting times.

Enrollment in some courses is restricted to students in specific majors. Major code restrictions are listed in the Class Schedule footnotes.

Enrollment in some courses is restricted to students at specific levels (i.e., freshmen, sophomore, junior, senior, or graduate). Student level restrictions are listed in the Class Schedule footnotes.

The registration system will not allow enrollment in more than one section of the same course unless it is repeatable.

Students entering SDSU as freshmen are required to complete coursework in composition, mathematics, oral communication, and critical thinking in a specific order. These enrollment requirements are enforced by the registration system. For more information, refer to the registration workbook that is distributed at new student orientation.

Late Registration. Late registration is allowed during the first 15 class days of the semester. Students wishing to late register must pay registration fees plus a $\$ 25.00$ late fee before the end of the 15th class day of the semester by 6:00 p.m. After receiving an add code from the instructor of the course the student wants to add, the student accesses the SDSU WebPortal to officially register.

Improper Registration in Graduate Courses. Only undergraduate students who are completing their bachelor's degree and who have filed a formal request for permission to enroll for concurrent master's degree credit or for concurrent postbaccalaureate credit may be authorized to enroll in 600 and higher numbered courses. Undergraduate students who have not received permission for concurrent enrollment may not enroll in 600 or higher numbered courses for any purpose without prior permission of the graduate dean. Undergraduates who enroll in advanced courses without permission are subject to administrative disenrollment. The registration for graduate students who have not met the stated prerequisites for Course 799A, Thesis, at the time of registration may be canceled.

Schedule Adjustment Policy. All schedule adjustments (formerly called Change of Program) MUST BE COMPLETED BY THE END OF THE 15TH CLASS DAY OF THE SEMESTER BY 6:00 P.M. The schedule adjustment period allows you to add a course, drop a course, withdraw from the university, and change grading basis. Students will no longer be allowed to make ANY schedule changes (excluding total withdrawal from the university for extremely serious, documented cases involving health or accident) after the 15th class day of the semester by 6:00 p.m.

Instructor Initiated Drop Policy. Students who do not attend the first class session and the beginning of the second class session of a course may be dropped from that course by the instructor within the first 12 class days of the semester. Students who do not meet prerequisite requirements can also be dropped within the first 12 class days of the semester. Any student dropped by the instructor during this period will be notified of the action by e-mail. It is the student's responsibility to keep a current e-mail address on file through the SDSU WebPortal at http://www.sdsu.edu/portal. To reenroll, the student must receive an add code from the instructor and reenroll in the course within the first 15 class days of the semester by 6:00 p.m.

NOT ALL INSTRUCTORS WILL DROP STUDENTS WHO MISS THE FIRST CLASS SESSION AND THE BEGINNING OF THE SECOND CLASS SESSION. Students are responsible for all courses on their schedules. Students should check their online schedules regularly and take necessary action to add or drop during the first 15 class days of the semester by 6:00 p.m.

Religious Observances. By the end of the second week of classes, students should notify the instructors of affected courses of planned absences for religious observances. Instructors shall reasonably accommodate students who notify them in advance of planned absences for religious observances.

## Statewide Placement Test Requirements

San Diego State University requires each entering undergraduate, except those who qualify for an exemption, to take the CSU Entry Level Mathematics (ELM) examination and the CSU English Placement Test (EPT) prior to enrollment. Admitted freshmen must take the ELM/EPT (if required) by the May test date prior to enrollment. These tests are designed to identify entering students who may need additional support in acquiring basic English and mathematics skills necessary to succeed in CSU baccalaureate-level courses. Undergraduate students who do not demonstrate college-level skills both in English and in mathematics will be placed in appropriate remedial programs and activities during the first term of their enrollment. Students placed in remedial programs in either English or mathematics must complete all remediation in their first year of enrollment. Students who do not successfully complete their remediation requirements within one year of their initial enrollment will be administratively disqualified.

Students register for the EPT and/or ELM at the Student Testing, Assessment and Research Office. Questions about test dates and registration materials may be addressed to the Prospective Student Center.

English Placement Test (EPT). The EPT is designed to assess the level of reading and writing skills of entering undergraduate students so that they can be placed in appropriate baccalaureate-level courses. The CSU EPT must be completed by all entering undergraduate students, with the exception of those students who present proof of one of the following:

- Students must place (score) in the "exempt" category on the Early Assessment of Readiness for College English taken in conjunction with the 11th grade California Standards Test in English Language Arts.
- A score of 550 or above on the verbal section of the College Board SAT Reasoning Test taken April 1995 or later.
- A score of 24 or above on the enhanced ACT English Test taken October 1989 or later.
- A score of 680 or above on the re-centered and adjusted College Board SAT II: Writing Test taken May 1998 or later.
- A score of 3, 4, or 5 on either the Language and Composition or the Composition and Literature examination of the College Board Scholastic Advanced Placement Program.
- Completion and transfer of a course that satisfies the General Education-Breadth or Intersegmental General Education Transfer Curriculum (IGETC) written communication requirement, provided such course was completed with a grade of $C$ or better.
Entry-Level Mathematics (ELM) Placement Examination. The ELM examination is designed to assess the skill levels of entering San Diego State University students in the areas of mathematics typically covered in three years of rigorous college preparatory mathematics courses in high school (algebra I, algebra II, and geometry). The CSU ELM must be completed by all entering undergraduate students, with the exception of those students who present proof of one of the following:
- Students must place (score) in the "unconditionally exempt" category on the Early Assessment of Readiness for College Mathematics taken in conjunction with the 11th grade California Standards Test in High School Mathematics or Algebra II.
- Students must place (score) in the "conditionally exempt" category on the Early Assessment of Readiness for College Mathematics taken in conjunction with the 11th grade California Standards Test in High School Mathematics or Algebra II PLUS successful completion of a CSU-approved mathematics or math-ematics-related course or activity in the 12th grade.
- A score of 550 or above on the mathematics section of the College Board SAT Reasoning Test or on the College Board SAT II Mathematics Tests Level I, IC (Calculator), II, or IIC (Calculator).
- A score of 23 or above on the American College Testing Mathematics Test.
- A score of 3 or above on the College Board Advanced Placement Mathematics examination ( AB or BC ) or Statistics examination.
- Completion and transfer of a course that satisfies the General Education-Breadth or the Intersegmental General Education Transfer Curriculum (IGETC) quantitative reasoning requirement, provided such course was completed with a grade of C or better.


## Determination of Residence for Nonresident Tuition Purposes

The law governing residence for tuition purposes at the California State University is California Education Code sections 68000-68090, 68120-68134, and 89705-89707.5, and California Code of Regulations, Title 5, Subchapter 5, Article 4, sections 41900-41916. This material can be viewed on the Internet by accessing the California State University's Web site at:

> http://www.calstate.edu/GC/resources.shtml.

The Office of Admissions is responsible for determining the residence status of all new and returning students based on the Application for Admission, Residence Reclassification Request Form, and, as necessary, other evidence furnished by the student. A student who fails to submit adequate information to establish eligibility for resident classification will be classified as a nonresident.

Generally, establishing California residence for tuition purposes requires a combination of physical presence and intent to remain indefinitely. An adult who, at least one full year prior to the residence determination date for the term in which enrollment is contemplated, can demonstrate both physical presence in the state combined with evidence of intent to remain in California indefinitely may establish California residence for tuition purposes. A minor normally derives residence from the parent(s) they reside with or most recently resided with.

Evidence demonstrating intent may vary from case to case but will include, and is not limited to, the absence of residential ties to any other state, California voter registration and voting in California elections, maintaining California vehicle registration and driver's license, maintaining active California bank accounts, filing California income tax returns and listing a California address on federal tax returns, owning residential property or occupying or renting an apartment where permanent belongings are kept, maintaining active memberships in California professional or social organizations, and
maintaining a permanent military address and home of record in California.

Adult noncitizens establish residence in the same manner as citizens, unless precluded by the Immigration and Nationality Act from establishing domicile in the United States. Unmarried minor noncitizens derive their residence in the same manner as unmarried minor citizens except that both parent and minor must have an immigration status consistent with establishing domicile in the United States.

Exceptions to the general residence requirements are contained in California Education Code sections 68070-68084 and California Code of Regulations, Title 5, Subchapter 5, Article 4, sections 4190641906.5, and include, but are not limited to, members of the military and their dependents, certain credentialed employees of school districts, and most students who have attended three years of high school in California and graduated or attained the equivalent. Whether an exception applies to a particular student cannot be determined before the submission of an application for admission and, as necessary, additional supporting documentation. Because neither campus nor chancellor's office staff may give advice on the application of these laws, applicants are strongly urged to review the material for themselves and consult with a legal adviser.

Nonresident students seeking reclassification are required to complete a supplemental questionnaire including questions concerning their financial dependence, which will be considered along with physical presence and intent in determining reclassification. Reclassifications are coordinated through the Office of the Registrar.

Residence determination dates are set each term. The residence determination dates are September 20 for fall, January 25 for spring, and June 1 for summer. The residence determination dates for the four stages of CalStateTEACH are September 20 (Stage 1), January 5 (Stage 2), June 1 (Stage 3), and September 20 (Stage 4).

Students classified as non-residents may appeal a final campus decision within 120 days of notification by the campus. A campus residence classification appeal must be in writing and submitted to:

## The California State University <br> Office of General Counsel <br> 401 Golden Shore, 4th Floor

Long Beach, CA 90802-4210
The Office of General Counsel can either decide the appeal or send the matter back to the campus for further review.

Students incorrectly classified 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, or who no longer meet the criteria for an exception, must immediately notify the Office of the Registrar.

Changes may have been made in the rate of nonresident tuition and in the statutes and regulations governing residence for tuition purposes in California between the time this catalog is published and the relevant residence determination date. Students are urged to review the statutes and regulations stated above.

# Measles, Rubella, Hepatitis B, and Meningococcal Health Screening Provisions 

Information on student health services and required immunizations is given in the section of this catalog on Student Services (Health Services).

## Schedule of Fees

Fees and tuition are subject to change without advance notice by the board of trustees of the California State University.
Fee rates for the 2006-07 academic year are based on fee rates proposed in the governor's budget. The governor bought out fee increases approved by the CSU board of trustees at their October 2005 meeting and maintained CSU fee rates at 2005-06 levels. The cost of this fee buy-out is $\$ 54.4$ million. The fee rates included in the governor's budget proposal must be approved by the legislature; consequently it is possible that fee rates ultimately required for the 2006-07 academic year may be more than the rates billed at this time. If rates are increased in the budget that is enacted for the 2006 fiscal year, students will receive a supplemental billing in the amount of the difference. The board of trustees has approved fee increases for 2006-07 that are 8 percent above fee rates charged undergraduate students in 2005-06 and 10 percent above fee rates that were charged students enrolled in teacher credential programs and graduate/postbaccalaureate programs in 2005-06.

An advisory referendum held March 8-9, 2006 was approved by students to increase the Student Body Center Fee, to provide for the construction and operation of modernized and expanded campus student union facilities. The increase for 2006-07, which is awaiting the president's approval, is $\$ 11.00$ per semester.

For updated information regarding the fee structure for 2006-2007 refer to the fall Class Schedule Web site at http://www.sdsu.edu/schedule.html or Student Financial Services at http://www.sdsu.edu/sfs.


#### Abstract

Fees must be paid prior to accessing the Web Portal to register. Checks are accepted for the exact amount of fees. Overpayments of $\$ 5.00$ or less are refunded only upon request. If your check for registration fees or tuition is returned by the bank for any reason, your registration may be canceled and you will be billed $\$ 55.00$ (a dishonored payment charge of $\$ 35.00$ and late fee of $\$ 20.00$ ). Payment of fees for 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 to the university. Checks to be made payable to SDSU. Do not enclose cash.

You may pay your fees online using your checking account information. There is no additional fee assessed for this service. Visit the Student Financial Services Web site at http://www.sdsu.edu/sfs and see Online Services.

In cooperation with SDSU, CASHNet ${ }^{\text {TM }}$ SmartPay allows students to pay their registration fees and/or out of state tuition with MasterCard, Discover Card or American Express card. The CASHNet™SmartPay URL is http://www.CashnetSmartPay.com/SDSU. Payments made via CASHNet ${ }^{\text {TM }}$ SmartPay are received by the University Cashiers Office no later than the next business day, so the registration process is not delayed. CASHNet ${ }^{\top M}$ SmartPay assesses each customer a service charge based on the transaction amount. See the Web site for details.


## ADMINISTRATIVE/FINANCIAL HOLDS

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

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

## REGISTRATION FEES - ALL STUDENTS:

(On basis of units carried.)
Fee payment information and instructions are in the Class Schedule available at http://www.sdsu.edu/schedule.html.

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

FALL 2006

| Units Attempted |  | Registration Fee |
| :---: | :---: | :---: |
| Undergraduate |  |  |
| 0 units - 6.0 units |  | \$1,044.00 |
| 6.1 or more units |  | \$1,572.00 |
| Graduate |  |  |
| 0 units - 6.0 units |  | ... \$1,212.00 |
| 6.1 or more units |  | . \$1,863.00 |

Teaching Credential Candidates
0 units - 6.0 units ........................................ \$1,161.00
6.1 or more units .......................................... \$1,773.00

SPRING 2007*

| Units Attempted |  | Registration Fee |
| :---: | :---: | :---: |
|  | Undergraduate |  |
| 0 units - 6.0 units |  | ..... \$1,060.00 |
| 6.1 or more units. |  | .... \$1,588.00 |
|  | Graduate |  |
| 0 units - 6.0 units |  | ... \$1,228.00 |
| 6.1 or more units. |  | .... \$1,879.00 |

## Teaching Credential Candidates

0 units - 6.0 units ......................................... \$1,177.00
6.1 or more units .......................................... \$1,789.00

[^2]
## Schedule of Fees

The above fee includes a Student Activity Fee of \$15.00, a Student Union Fee of $\$ 82.00$ ( $\$ 98.00$ for spring 2007), a Health Facilities Fee of \$25.00, an Instructionally Related Activities Fee of \$95.00, a Health Services Fee of \$85.00, a Library Use Fee of \$10.00, and a State University Fee of either $\$ 732.00$ or $\$ 1,260.00$ for undergraduate students, or $\$ 900.00$ or $\$ 1,551.00$ for graduate students, or $\$ 849.00$ or \$1,461.00 for teaching credential candidates, depending on unit load.

Imperial Valley Campus students pay a Student Union Fee of \$24.00, a Health Services fee of \$10.00, and a Health Facilities Fee of \$3.00. Imperial Valley Campus students do not pay the Library Use Fee. See Imperial Valley Campus Bulletin for details.

The total fee paid per term will be determined by the number of units taken.

Mandatory systemwide fees are waived for those individuals who qualify for such exemption under the provisions of the California Education Code. See "Exemptions" in this section of the catalog.

Legal residents of California are not charged tuition.

## INSTALLMENT PLAN

An installment plan is available for students who wish to pay their registration fees (and tuition, if applicable*) in 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.

* Additional service charges apply to out-of-state and foreign tuition only. Service charge is equal to $15 \%$ of each installment payment of tuition.


## TUITION FOR NONRESIDENT STUDENT

## (Foreign and Out-of-State)

Tuition will be charged for all units attempted. Per unit. \$339.00*
(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
$\$ 650.00$

* Not to exceed $\$ 10,170.00$ for the fall/spring semesters.


## PARKING FEES

Nonreserved parking space, per semester............................. \$135.00
Car pool—see Cashiers Office.
Less than four-wheeled, self-propelled vehicle (motorcycle, moped)34.00

Combined student/overnight parking surcharge, per semester ......................................................................... 213.00
Section 42201 of Title 5, California Code of Regulations, provides for the waiver of campus parking fees for students with disabilities who have been issued a DMV placard or license plate, and who meet low income requirements. For further information regarding eligibility, contact the Disabled Student Services Office (Student Services, Room 1661).

## MISCELLANEOUS FEES

(Fees payable when service is rendered.)
AFROTC deposit
(Unexpended portion is refundable.) .................................... 75.00
Application for admission or readmission (nonrefundable)
payable by check or money order at time application is made
Application to Teacher Education Credential Program (in addition to $\$ 55.00$ application for admission)25.00
Counseling Diversion Program fee
(missed appointment fee \$30.00) ..... 100.00
Credential application fee* ..... 55.00
Credential evaluation fee ..... 25.00
Diploma replacement fee ..... 12.00
Document copying fee ..... 1.00
Enrollment confirmation deposit fee (nonrefundable) ..... 100.00
Failure to meet administratively required appointment or time limit (late fee) ..... 20.00
Fingerprinting fee (plus applicable DOJ and FBI fees) ..... 17.00
Graduation services fee.. ..... 35.00
Interest inventory assessment . ..... 10.00
Late course forgiveness ..... 20.00
Late registration (nonrefundable)
(Refer to Class Schedule for dates when thisfee will be assessed.)25.00
Latin diploma ..... 22.00
Lock and locker fee (optional) ..... 1.00
Loss of or damage to library materials Replacement cost
plus $\$ 8.00$ service charge
Lost key fee (per key) ..... 10.00
Lost photo identification card
Photo I.D. Card replacement ..... 10.00
Musical instrument and audio/visual equipment fee ..... 20.00
Photo-identification card (One-time cost to both new undergraduate and graduate students at time of registration.) Non-refundable ..... 5.00
Registration installment plan service charge ..... 33.00
Returned payment fee** ..... 35.00
Towel fee (optional) ..... 4.00
Transcript of record (official or unofficial) ..... 4.00
Second through tenth transcript, prepared at the same time as the first $\$ 4.00$ plus each 2.00
Additional copies over ten, preparedat the same time$\$ 22.00$ plus each 1.00
Tuition (Foreign or Out-of-State) installment paymentplan service charge..Equal to 15 percent of eachinstallment payment

* Established by and payable to the California Commission on Teacher Credentialing.
** Late fee also charged when applicable.


## MISCELLANEOUS INSTRUCTIONAL COURSE CHARGES

Optional and mandatory course charges are assessed for a number of courses and laboratories offered at SDSU.

A list of the courses and fee amounts can be found at http:// www.sdsu.edu/sfs under Financial Information/Course Fees. The courses are also footnoted in the Class Schedule.

## CREDIT CARDS

The University Cashiers Office does not accept credit cards for payment of registration fees or tuition (foreign or out-of-state) except as applicable under the terms of the Installment Plan. American Express, MasterCard, Visa, and Discover Card charge cards are accepted for other payments, such as housing, parking, health services, continuing education, installment payments, and miscellaneous over-the-counter payments. In cooperation with SDSU, CASHNet ${ }^{\text {TM }}$ SmartPay does afford students the choice to use a credit card
(American Express, MasterCard and Discover Card) to pay registration fees and/or tuition. Refer to fees section on previous page. Most ATM cards are also accepted for payment of miscellaneous charges. Additional information is available from the University Cashiers Office.

## 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 fifteenth day following the commencement of instruction. Foreign and out-of-state students are liable for tuition related to all units held, except as provided for by the refund policy.

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

Nonresident (foreign and out-of-state) 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 12 units at the time of registration. Foreign students wishing to pay fewer than 12 units must submit written approval to do so from the International Student Center or the Division of Graduate Affairs, as applicable.

IT IS THE STUDENT'S RESPONSIBILITY TO BE AWARE OF TOTAL FEES ANDTUITION DUE. Legal residents of California are not charged nonresident tuition. Additional fees that 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 $\$ 35.00$ 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 INCLUDING NON-RESIDENTTUITION

Regulations governing the refund of mandatory fees, including nonresident tuition, for students enrolling at the California State University are included in Section 41802 of Title 5, California Code of Regulations. For purposes of the refund policy, mandatory fees are defined as those systemwide fees and campus fees that are required to be paid in order to enroll in state-supported academic programs at the California State University. Refunds of fees and tuition charges for self-support programs at the California State University (courses offered through extended education) are governed by a separate policy established by the university.

In order to receive a full refund of mandatory fees, including nonresident tuition, a student must cancel registration or drop all courses prior to the first day of instruction for the term. Information on procedures and deadlines for canceling registration and dropping classes is available from the Office of the Registrar and in the Class Schedule.

For state-supported semesters, quarters, and non-standard terms or courses of four weeks or more, a student who withdraws during the term in accordance with the university's established procedures will receive a refund of mandatory fees, including nonresident tuition, based on the portion of the term during which the student was enrolled. No student withdrawing after the 60 per cent point in the term will be entitled to a refund of any mandatory fees or nonresident tuition.

For state-supported semesters, quarters, and non-standard terms or courses of less than four weeks, no refunds of mandatory fees and nonresident tuition will be made unless a student cancels registration or drops all classes prior to the first day in accordance with the university's established procedures and deadlines.

Students will also receive a refund of mandatory fees, including non-resident tuition under the following circumstances:

- The tuition and mandatory fees were assessed or collected in error;
- The course for which the tuition and mandatory fees were assessed or collected was cancelled by the university;
- The university makes a delayed decision that the student was not eligible to enroll in the term for which mandatory fees were assessed and collected and the delayed decision was not due to incomplete or inaccurate information provided by the student; or
- The student was activated for compulsory military service.

Students who are not entitled to a refund as described above may petition the university for a refund demonstrating exceptional circumstances and the chief financial officer of the university or designee may authorize a refund if he or she determines that the fees and tuition were not earned by the university.

Information concerning any aspect of the refund of fees may be obtained from the University Cashiers Office or at http:// www.sdsu.edu/sfs. Refunds may be applied against other amounts due to the university.

## Return to Title IV Financial Aid Requirements

The following policy is required by the Higher Education Amendments of 1998 (Public Law 105-244, enacted October 7, 1998).

When a student who has received Title IV financial aid withdraws, or otherwise fails to complete a period of enrollment for which he or she was charged, the institution is required to determine if unearned aid must be returned to the federal accounts. Calculations will be based on the withdrawal date and the percentage of the period of enrollment completed. If Title IV funds have been disbursed during the enrollment period, aid will first be returned by the institution to the programs in the order listed below as required by law and determined by the university. If funds have been disbursed directly to the student, he or she may be required to repay any unearned aid. In some cases where eligibility for aid exceeds the amount disbursed, the regulations allow for a post-withdrawal disbursement. If eligible for a post-withdrawal disbursement, the university will notify you of the process required to receive the funds.

Title IV Financial Aid consists of the following programs:
Unsubsidized William D. Ford Federal Direct Loan
Subsidized William D. Ford Federal Direct Loan
Federal Perkins Loan
William D. Ford Federal Direct PLUS Loan
Federal Pell Grant
Federal Supplemental Educational Opportunity Grant (FSEOG)
Examples of refund calculations are available upon request at the University Cashiers Office.

## Refund of Parking Fees

REFUNDS ARE NOT AUTOMATIC. 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
First week of class ............................................ 100 percent of fee
Second and third week ..................................... 75 percent of fee
Fourth week through end of sixth week .............. 50 percent of fee
Seventh week through tenth week ...................... 25 percent of fee
Eleventh week through end of term $\qquad$
Your parking permit or a receipt indicating that the permit was removed from the vehicle by a university police officer (information booth at the Chemical Sciences Laboratory building) 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 the Office of the Registrar for details. The registration process is not complete until all fees due are paid and you are officially enrolled in classes through the Office of the Registrar.

## CANCELLATION OF REGISTRATION OR WITHDRAWAL FROM THE UNIVERSITY

Students who find it necessary to cancel their registration or to withdraw from all classes after enrolling for any academic term are required to follow the university's official withdrawal procedures. Failure to follow formal university procedures may result in an obligation to pay fees as well as the assignment of failing grades in all courses and the need to apply for readmission before being permitted to enroll in another academic term. Information on canceling registration and withdrawal procedures is available from the Office of the Registrar.

Students who receive financial aid funds must consult with the Office of Financial Aid and Scholarships prior to withdrawing from the university regarding any required return or repayment of grant or loan assistance received for that academic term or payment period. If a recipient of student financial aid withdraws from the institution during an academic term or a payment period, the amount of grant or loan assistance may be subject to return and/or repayment provisions.

## APPEALS PROCESS - UNIVERSITY 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 University Cashiers Office. Petitions must be filed with the University Cashiers Office prior to the end of the twelfth week of classes.

Petitions for refunds outside the scope of published policy are approved only when applicants can demonstrate exceptional circumstances, and the chief financial officer or designee determines that the fees and tuition were not earned by the university.

## SUMMER SESSION FEES

Refer to SDSU Summer Session Class Schedule for schedule of fees.

## EXTENSION COURSE FEES

Refer to Extended Studies Catalog for schedule of fees.

## EXEMPTIONS

Students receiving vocational rehabilitation benefits (U.S. Code, Title 38, Chapter 31) or the eligible dependents of veterans with ser-vice-connected disability or death (California Education Code, Section 32320) will have eligible fees and tuition paid or waived under provisions of these respective programs. See Class Schedule for instructions regarding deadlines for submission of documents to University Cashiers.

Those students who are eligible dependents of veterans with ser-vice-connected disability or death (California Education Code, Section 32320) must apply to the Regional Office of the Department of Veterans Affairs for the fee waiver in the year they apply to SDSU and all subsequent years they attend. Fee waiver (and refund of fees paid) will be approved for a prior academic year only if an application for certification of disabled status is pending with the United States Department of Veterans Affairs.

Further information regarding these programs is available in the Office of the Registrar.

## FEE WAIVERS

The California Education Code includes provisions for the waiver of mandatory systemwide fees as follows:

Section 68120 - Qualifying children and surviving spouses/registered domestic partners 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 (referred to as Alan Pattee Scholarships);

Section 66025.3 - Qualifying children, spouses/registered domestic partners, or unmarried surviving spouses/registered domestic partners of a war period veteran of the U.S. military who is totally serviceconnected disabled or who died as a result of service-related causes; children of any veteran of the U.S. military who has a service-connected disability, was killed in action, or died of a service-connected disability and meets specified income provisions; any dependents or surviving spouse/registered domestic partner who has not remarried of a member of the California National Guard who in the line of duty and in active service of the state was killed or became permanently disabled or died of a disability as a result of an event while in active service of the state; and undergraduate students who are the recipient of or the child of a recipient of a Congressional Medal of Honor and meet age and income restrictions; and

Section 68121 - Qualifying students enrolled in an undergraduate program who are the surviving dependent(s) of any individual killed in the September 11, 2001, terrorist attacks on the World Trade Center in New York City, the Pentagon building in Washington, D.C., or the crash of United Airlines Flight 93 in southwestern Pennsylvania; if the student meets the financial need requirements set forth in Section 69432.7 for the Cal Grant A Program, and either the surviving dependent or the individual killed in the attacks was a resident of California on September 11, 2001.

Students who qualify for these benefits should contact the Office of the Registrar for further information and/or an eligibility determination.

## 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 $\$ 13$ fee). Participants must apply for admission during the regular application filing 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.

## Procedure for the Establishment or Abolishment of a Student Activity Fee

The law governing the California State University provides that fees defined as mandatory, such as a student activity association fee and a student activity center fee may be established. A student activity association fee must be established upon a favorable vote of two-thirds of the students voting in an election held for this purpose (California Education Code, Section 89300). A student activity center fee may be established only after a fee referendum is held which approves by a two-thirds favorable vote the establishment of the fee (California Education Code, Section 89304). The student activity fee was established at San Diego State University by student referendum in 1955. The campus president may adjust the student activity association fee only after the fee adjustment has been approved by a majority of students voting in a referendum established for that purpose (California Education Code, Section 89300). The required fee shall be subject to referendum at any time upon the presentation of a petition to the campus president containing the signatures of 10 percent of the regularly enrolled students at the university. Once bonds are issued, authority to set and adjust student activity center fees is governed by provisions of
the State University Revenue Bond Act of 1947, including, but not limited to, California Education Code, Sections 90012, 90027, and 90068. Student activity association fees support a variety of cultural and recreational programs, child care centers, and special student support programs.

The process to establish and adjust other campus-based mandatory fees requires consideration by the campus fee advisory committee and a student referendum. The campus president may use alternate consultation mechanisms if he/she determines that a referendum is not the best mechanism to achieve appropriate and meaningful consultation. Results of the referendum and the fee committee review are advisory to the campus president. The president may also request the chancellor to establish the mandatory fee.

## Fees and Debts Owed to the Institution

Should a student or former student fail to pay a fee or 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).

Prospective students who register for courses offered by the university are obligated for the payment of fees associated with registration for those courses. Failure to cancel registration in any course
for an academic term prior to the first day of the academic term gives rise to an obligation to pay student fees including any tuition for the reservation of space in the course.

The institution may withhold permission to register or to receive official transcripts of grades or other services offered by the institution from anyone owing fees or another debt to the institution. Any debt owed to the university for educational purposes is considered an extension of credit and is an educational loan. Failure to pay would be considered a breach of contract and result in interest accrued on the outstanding debt(s). 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 person believes he or she does not owe all or part of an asserted unpaid obligation, that person may contact the University Cashiers Office. The Cashiers Office, or another office on campus to which the Cashiers Office may refer the person, will review all pertinent information, including information provided by the person and available to the campus and will advise the person of its conclusions.


# 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, you may maintain catalog rights for General Education purposes only by enrolling immediately in a California community college 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 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 2006, May 2007, or in the 2007 summer term may adopt this catalog by so indicating on their application for graduation.

## I. Freshmen Competency Requirements: Mathematics and Writing

All students are required to demonstrate competency in basic mathematics and standard written English. Incoming students who are not exempt from the CSU Entry Level Mathematics examination (ELM) and/or the English Placement Test (EPT) because of national test scores or college level courses (see explanation of exemptions) must take these tests by the May test date or their admission to SDSU will be cancelled. Those who fail one or both of these examinations are REQUIRED to be enrolled in appropriate sections of General Mathematics and/or Rhetoric and Writing Studies courses in the FIRST semester of enrollment. Students who do not successfully complete their remediation requirements within one year of their initial enrollment will be administratively disqualified.

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.

## MATHEMATICS TESTING REQUIREMENTS: FRESHMEN

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:
a. ELM score of 50 if taken after February 2002 (CSU Entry Level Mathematics Test). ELM score of 550 if taken before February 2002.
b. SAT or SAT Reasoning Test mathematics score of 550 (Scholastic Aptitude Test or Scholastic Assessment Test).
c. ACT mathematics test score of 23 (American College Test) if taken after October 1989.
d. Students must place (score) in the "unconditionally exempt" category on the Early Assessment of Readiness for College Mathematics taken in conjunction with the 11th grade California Standards Test in High School Mathematics or Algebra II.
e. Students must place (score) in the "conditionally exempt" category on the Early Assessment of Readiness for College Mathematics taken in conjunction with the 11th grade California Standards Test in High School Mathematics or Algebra II PLUS successful completion of a CSU-approved mathematics or mathematics-related course or activity taken before you enroll at a CSU campus.
f. AP score of 3 on mathematics $A B$ or $B C$ examination or the statistics examination (The College Board Advanced Placement Program).
g. Score of 550 on the College Board Mathematics Achievement Test, Level I or IC or II or IIC.
h. Score of 550 on the College Board SAT II Mathematics Test, Level I or IC or II or IIC.

* These scores are appropriate only to those students who satisfy the requirement upon matriculation in this catalog year or who take the examinations during this catalog year.

OR
II. Earn a "C" or better grade in a transferable college mathematics course that satisfies General Education in Mathematics/Quantitative Reasoning.

## OR

III. Complete BOTH a. and b. (below)
a. Attempt but fail the ELM test (CSU Entry Level Mathematics) (score below 50 if taken after February 2002 and score below 550 if taken before February 2002).

## AND

b. Earn Credit (Cr) in General Mathematics Studies 91 or 99C at SDSU.
Credit earned in General Mathematics Studies courses numbered below 100 are not applicable to the baccalaureate degree.

## Mathematics Departmental Placement Examination

Students wishing to enroll in any logic, mathematics, physics, statistics, or mathematically related 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;
the Precalculus Proficiency Examination tests knowledge of algebra and trigonometry as needed in calculus; Part LS tests numbers and operations, geometry and measurement. Equivalent transfer courses will not grant exemptions from any part of the Placement Examination.

## WRITING TESTING REQUIREMENTS: FRESHMEN

Demonstration of writing competency is satisfied in one of the following ways:
I. Pass one of the following national or state tests at the minimum score* or level identified below:
a. EPT score of 151 total (CSU English Placement Test).
b. SAT Reasoning Test verbal score of 550 (Scholastic Aptitude Test or Scholastic Assessment Test) if taken after March 1995. SAT or SAT Reasoning Test verbal score of 470 if taken before March 1995.
c. ACT English test score of 24 (American College Test) if taken after October 1989.
d. Students must place (score) in the "exempt" category on the Early Assessment of Readiness for College English taken in conjunction with the 11th grade California Standards Test in English Language Arts.
e. AP score of 3 on Language and Composition or Literature and Composition (The College Board Advanced Placement Program).
f. Score of 600 on the College Board Achievement Test in English Composition with Essay.
g. Score of 680 or above on the College Board SAT II Writing Test taken May 1998 and after. Score of 660 on College Board SAT II Writing Test taken between April 1995 and April 1998. Score of 600 on the College Board SAT II Writing Test taken before March 1995.

[^3]
## OR

II. Pass with a C or better a transferable college composition course that satisfies General Education in Composition or Critical Thinking.

## OR

III. Complete BOTH a. and b. (below)
a. Attempt but fail the EPT (CSU English Placement Test) (score below 151 total)
AND
b. Earn credit (Cr) in one of the following courses: Linguistics 94; Rhetoric and Writing Studies 92A, 92B, 94, 97.
Credit earned in Linguistics and Rhetoric and Writing Studies courses numbered below 100 are not applicable to the baccalaureate degree.

## II. Graduation Writing Assessment Requirement (GWAR)

All undergraduates must demonstrate competency in writing skills at the upper division level as a requirement for the baccalaureate degree. The Writing Proficiency Assessment (WPA) is a one and one-half hour examination used to evaluate writing competency.
A. Students must take the WPA within the time frames described below. Once students are enrolled in Rhetoric and Writing Studies 280 or 281 or Linguistics 281, they may not take the WPA to test out of an upper division writing course.

Continuing Students. Continuing students must take the WPA during the semester in which they are completing 60 units or in the semester immediately following.
Transfer Students. Transfer students are eligible to take the WPA once they have received an offer of admission. They must take the examination during their first semester at SDSU.
B. Students who do not take the examination by the end of the required time frame will not be able to register for future terms. Students may stop out of the university one semester and maintain continuing student status. If the examination is completed during the stop out term, the student may re-enroll the following semester. Students who have not taken the examination by the end of the stop out term will be required to reapply for admission to SDSU and meet the admission requirements in effect at the time they reapply.
C. Writing Proficiency Assessment Scores. Students who achieve a score of 10 or above on the WPA satisfy the statewide Graduation Writing Assessment Requirement and do not have to take a writing course unless an upper division writing course is required by their major.

Students who achieve a score of 8 or 9 are required to satisfy the Graduation Writing Assessment Requirement by completing an approved upper division writing course with a grade of C or higher. SEE LIST BELOW.

Students who earn a score of 7 or lower are required to complete Rhetoric and Writing Studies 280 (or Rhetoric and Writing Studies 281 or Linguistics 281 if English is your second language) with a grade of C or higher before enrolling in one of the required approved upper division writing courses. The SDSU registration system will require students who earn a 7 or below to register for the required course in the semester following the testing time frame.
D. Students who transfer from another California State University campus having fulfilled the Graduation Writing Assessment Requirement will not be required to repeat it. However, a course listed below may be required for the major. Contact the Academic Advising Center if you believe you have fulfilled this requirement at another CSU.
E. Students are allowed to attempt the WPA twice within the timeframes and restrictions described above. Students may not drop a course in which they are registered if test results are received after the schedule adjustment deadline. Students must pay the required fees for the examination each time it is taken.
F. Approved upper division writing courses:

Chicana and Chicano Studies 396W
Communication 310W
English 306W
English 308W
English 508W
English 581W
English 584W
History 400W
History 450W
Information and Decision Systems 390W
Information and Decisions Systems 396W
Linguistics 305W
Linguistics 396W
Recreation 396W
Rhetoric and Writing Studies 305W
Rhetoric and Writing Studies 500W
Rhetoric and Writing Studies 503W
Rhetoric and Writing Studies 508W
Women's Studies 400W

## 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. If a major is impacted, students must meet major requirements in effect at time of declaration of premajor, assuming continuous enrollment. 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 term and Open University, spring 1998 and thereafter, 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. Upper division courses taken in the major department may not be used to meet requirements in a minor or in General Education, except for General Education, Section III, American Institutions. 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 27 units for the B.A. degree or at least 39 units for the B.S. degree. 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 $\mathrm{Cr} / \mathrm{NC}$.

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 the Registrar 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 $\mathrm{Cr} / \mathrm{NC}$. 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 or another minor, 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 the Registrar.

## IV. American Institutions Requirement

Title 5, California Code of Regulations, Article 5, Section 40404 requires that all students demonstrate an understanding of American history, the United States Constitution, and California state and local government.

The American Institutions requirement can be satisfied in any of three ways:
A. San Diego State University Courses: By passing any one of the following pairs of courses (three of the six units needed for American Institutions can also be applied to General Education):

Africana Studies 170A and 170B
Chicana and Chicano Studies
120A and 120B
Chicana and Chicano Studies
141A and 141B
History 109 and 110
History 109 and 410
History 115 and 116
History 110 and 409
History 409 and 410
Political Sci 101 and 102

Political Sci 101 and 320
Political Sci 102 and 305
Political Sci 102 and 321
Political Sci 102 and 422
Political Sci 305 and 320
Political Sci 305 and 321
Political Sci 305 and 422
Political Sci 320 and 321
Political Sci 320 and 422
Religious Studies 390A and 390B
Women's Studies 341A and 341B

## B. Transfer courses from accredited California Colleges and Universities:

1. Full Certification of American Institutions Requirement: Students transferring within California will fulfill the American Institutions requirement by providing certification on a transcript or other official document from a regionally accredited California university, liberal arts college, or community college that the requirement as outlined in Title 5, California Code of Regulations, Article 5, Section 40404 has been satisfied.
2. Partial Completion of American Institutions Requirement: Transfer credit may be used toward partial fulfillment of the American Institutions requirement.
3. Certification Based on High School Work: No certification based on high school work can be accepted.
C. Transfer Courses from Outside California or Advanced Placement Credit: Students who have met both the American history and United States Constitution portion of the American Institutions requirement through any of the following:
4. Advanced Placement (AP) credit in American history or Government/Politics: American or International Baccalaureate credit in History of the Americas.
5. Course(s) in American history which cover a minimum of 100 years of U.S. history, including the establishment of the U.S. Constitution;
6. An American history course which covers a minimum of 100 years of history AND a course in American Government:
Student may elect to complete the California state and local government portion of the American Institutions requirement by either:
a. Taking the California Government examination available through the Student Testing, Assessment and Research Office, OR
b. Completing one of the following SDSU courses: Africana Studies 170B; Chicana and Chicano Studies 120B, 141B; History $110^{\star}, 116^{+}, 410,445$; Political Science $102^{\star *}, 320^{* *}$, 321, 422; Religious Studies 390B; Women’s Studies 341B.
[^4]
## V. 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 language requirement in a language other than English as indicated below. 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 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 (see exceptions above) require competency in a language other than English. Such competency can be demonstrated by:

1. Successfully completing the third college semester or fifth college quarter in a language other than English;
2. Successfully completing the fourth-year level of high school courses in a language other than English;
3. Successfully completing a third-semester equivalent proficiency examination in a language other than English;
4. Graduating from high school (where English is not the major language of instruction) in a non-English speaking country.
5. Passing with a score of 3 or higher on a placement (AP) examination in French language, French literature, German language, Spanish language, or Spanish literature; or passing with a score of 5 in Latin literature or Vergil.
6. Passing with a score of 4 to 7 on the higher level examination for International Baccalaureate credit in French, German, or Spanish A2 or Spanish B.

Students who are majoring in art history, European studies, humanities, international economics, and linguistics should also read the section on 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 language requirement are:

Arabic 101, 102, 201 or 202
Chinese 101, 102, and 201
Classics 101G, 202G, and 303G (Greek)
Classics 101L, 202L, and 303L (Latin)
Filipino 101, 102, and 201
French 100A, 100B, and 200 or 201 or 210 or 221
German 100A, 100B, 202 or 205A or 205B
Hebrew 101, 102 and 200, and 201
Italian 100A, 100B, and 201 or 210
Japanese 111, 112, and 211
Portuguese 101, 201, and 301
Russian 100A, 100B, and 200A
Spanish 101, 102, and 103 or 202 or 281 or 282
Speech, Language, and Hearing Sciences 159, 259, and 289
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 School of Music and Dance or by completion of the appropriate language course as follows:

1. Vocalists - one semester each of French, German, and Italian.
2. Music Education - two semesters of Spanish.
3. All others - two semesters of one language chosen from French, German, Italian, or Spanish.

## VI. Unit Requirements

A. Overall unit requirement. The minimum number of units necessary for a bachelor's degree (excluding courses numbered 99 and below; also courses numbered 397) is 120. Many majors and degrees have requirements that extend beyond the minimum number of units as listed below:

1. Bachelor of Arts degree in Applied Arts and Sciences 120-124
2. Bachelor of Arts degree in Liberal Arts and Sciences .. 120-124
3. Bachelor of Science degree in Applied Arts and Sciences 120-128
4. Bachelor of Science degree in Engineering ................. 128-138
5. Bachelor of Science degree in Geological Sciences ... 124-132
6. Bachelor of Fine Arts degree in Dance................................ 132
7. Bachelor of Music degree ................................................... 132
8. Bachelor of Vocational Education degree ............................. 120

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.
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 ........... 40
3. Bachelor of Science degree in Applied Arts and Sciences .... 45
4. Bachelor of Fine Arts degree in Applied Arts and Sciences.... 41
5. Bachelor of Music degree ................................................ 37-45
6. Bachelor of Fine Arts degree in Dance.................................... 41
7. 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 (excluding AP credit) ................ 30
3. From extension, Open University, and correspondence
*4. From special sessions, extension, and Open University combined as non-matriculated student
.24
**5. From courses graded credit (Cr) ........................................... 15
4. From topics courses numbered 296, 496, $596 \ldots \ldots \ldots \ldots . . . . . . . . . .$.
5. From General Studies courses numbered 200 and 400 ........ 6
6. From courses numbered below 100, and courses
numbered $397 \ldots \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~$ 0
7. From Special Study courses numbered 299, 499, 599........... 9
8. From courses numbered 499 from one department
(except Geological Sciences 499) ..................................... 6
9. From Aerospace Studies, Military Science, and 24
10. From Music 170-189, 369-389, 569-589 (for non-major and music major for B.A. degree)

14
13. From Music 170-189, 369-389, 569-589 (for music major for B.M. degree in General Music and Music Education) . 14
14. From Music 170-189, 369-389, 569-589 (for music major for B.M. degree in Performance, Composition, and Jazz Studies)

[^5]
## 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 English (courses in Comparative Literature, English, Rhetoric and Writing Studies). .54
b. For students majoring in French . ..... 49
c. For students majoring in Japanese. ..... 56
d. For students majoring in psychology ..... 50
e. For students majoring in Russian ..... 53
f. For students majoring in social work ..... 51
g. For students majoring in Spanish or completing the single subject teaching credential program in Spanish ..... 52
h. For students majoring in speech, language, and hearing sciences.. ..... 68
i. For students majoring in art with an emphasis in studio arts ..... 57
2. Bachelor of Fine Arts in Dance degree. The maximum number of units in upper division dance courses acceptable toward the Bachelor of Fine Arts in Dance degree is 70.
3. Bachelor of Music degree. The maximum number of units in upper division music courses acceptable toward the Bachelor of Music degree is 70 .
4. Bachelor of Science degree in Business Administration. The minimum number of units required outside of business administration, economics, and statistics is 60.

## 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 Open University prior to spring 1998, in Extension, 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. Upper division courses required for the major but taught outside the major department will also be included in the average.
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 University Policies under Grades.

## 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 equip you with the abilities to remember and learn from the past, to experience and enjoy our artistic and literary heritage, to understand and appreciate the multicultural complexity of our society, to comprehend the advances technology will bring, to make educated decisions as a member of the electorate, and to continue learning after your college education is completed.

General Education at SDSU represents both a global and regional perspective. It provides an understanding of various socio-economic backgrounds with the intent of fostering mutual understanding and respect for cultural diversity. In addition, GE develops criticalthinking and interpersonal skills.

In demonstrating the interrelated nature of human endeavors, General Education shows how discipline specific knowledge is linked with other subject areas. With a demonstrated linkage between general education courses and those in other disciplines, you will be able to discern the complexities of society and the environment, and to integrate these into your personal and professional lives.

The program has four major objectives: (1) to develop your intellectual capabilities necessary to the enterprise of learning; (2) to introduce you to modes of thought characteristic of diverse academic disciplines; (3) to help you understand the conditions and forces that shape you as a human being and influence your life; and (4) to help you apply critical and informed judgments to the achievements of your own and other cultures.

The program consists of 49 units divided into four sections: I, Communication and Critical Thinking; II, Foundations; III, American Institutions; IV, Explorations. The sections should be taken in sequence so that you master skills needed to understand the academic disciplines of the university, and to prepare you for the more specialized or interdisciplinary courses in Section IV (Explorations).

Each section has specific educational objectives and courses designed to meet these objectives. For example, courses in Section I, Communication and Critical Thinking, are designed to develop your skills in the areas of written and oral communication, and in reasoning. Courses in Section II, Foundations, use the skills developed in Section I, and provide an introduction to various areas of study. The knowledge you gain in Foundations will help prepare you to live in our multicultural society. Section III, American Institutions courses provide you with knowledge of American democracy and enable you to contribute as a responsible and constructive citizen. Section IV, Explorations, courses are upper division and cannot be used to fulfill this requirement if 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.

Notations in brackets at the end of course titles in the courses and curricula section of the catalog identify courses which satisfy General Education [GE] and American Institutions [AI] requirements.

## General Education Goals

## Mission Statement

The overall intellectual development of each student is the central focus of San Diego State University's general education program. The intent of the program is to provide students with multiple sets of skills, perspectives, and knowledge that will enable them to approach intellectual, cultural, and ethical issues in a flexible and balanced fashion. This breadth of understanding is the basis for effective citizenship, effective contribution to society through a profession, and lifelong enjoyment of artistic and intellectual activities. The General Education program is expected to provide the motive and foundation for lifelong learning, and help students develop their personal world views, identities, and sense of purpose.

Because the focus of General Education courses is on personal intellectual development and the application and integration of knowledge, General Education courses have a special responsibility to assist students in becoming active learners who participate in their education, and to suggest how different academic fields are connected to one another. The goals of these courses will differ from those of courses in the major. Majors emphasize specialized content and skills, the theoretical perspectives and methodologies required by particular disciplines. While most general education courses will derive from disciplinary perspectives, it is desirable that they display an interdisciplinary awareness, orienting students to the context of the field and pointing out the contributions or perspectives of other fields where appropriate. The disciplines, in other words, should be placed in a wider world to which students can relate their learning. Interdisciplinary and other kinds of courses whose primary purpose is the integration of learning will also have a place in the General Education program.

## Student Learning Goals for General Education as a Whole

The following student learning goals have been identified for the General Education program as a whole:
A. Proficiencies: Students should be able to gather, comprehend, and evaluate information and to communicate this knowledge. Because such skills are important to lifelong learning and to participation in modern society, graduates should demonstrate the ability to:

- Write and speak clearly, coherently, and effectively as well as to adapt modes of communication to one's audience;
- Interpret academic writing and discourse in a variety of disciplines;
- Interpret numerical data and perform basic computation;
- Locate, analyze, synthesize, and evaluate information;
- Utilize appropriate technologies;
- Utilize appropriate language skills.
B. Knowledge and Understanding: To be lifelong learners, critical and creative thinkers, and responsible citizens students should acquire broad and general understanding of the fundamental values, concepts, perspectives, and methodologies of a variety of academic disciplines:
- Scientific principles and their use in scientific inquiry;
- Quantitative approaches and their use in solving problems;
- Historical, cultural, and philosophical traditions that have shaped our diverse society;
- Significant elements of the world's diverse cultures and interconnections among them;
- The aims and methods of intellectual, spiritual, literary, and artistic expression;
- The significance that abstract ideas and artistic expressions have in the process of self-understanding and in the shaping of society.
C. Habits of Mind and Attributes of Character: To be independent decision-makers and responsible citizens students should possess:
- Sensitivity to social and cultural differences;
- Sensitivity and attentiveness to the ethical dimensions of any problem or experience;
- A disposition to weigh opposing viewpoints in the balance of reason and to develop an informed perspective;
- A disposition to welcome new knowledge and insight (intellectual curiosity);
- The ability to think logically, critically, and contextually in assessing evidence and recognizing bias and false logic.
- Openness to the value of new social, cultural, or aesthetic forms (flexibility of mind and sensibility);
- An appreciation for the broader social, intellectual, and historical contexts of individual events and situations;
- Recognition of social and intellectual responsibility;
- Understanding issues of value, making appropriate value judgments, and expressing their values.


## GENERAL EDUCATION

## 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 $\mathbf{1 2}$ units from one department can be used in General Education.
2. No more than $\mathbf{7}$ units from one department can be used in Sections II and IV combined (Foundations and Explorations), nor more than 10 units from one department in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).
3. All credit earned in the General Studies 260A-260F 18-unit package will satisfy General Education. The limitations described in 1. and 2. above do not apply to these courses, but students who complete all 18 units may not take any additional courses in General Studies to satisfy Section IV, Explorations. Students who complete only one 9-unit package (General Studies 260A and 260B and 260C, or General Studies 260D and 260E and 260F) may apply only one additional General Studies course to satisfy Section IV, Explorations.
4. Upper division courses in your major department cannot be used in Section IV (Explorations).
5. 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 27 units for the B.A. degree or at least 39 units for the B.S. degree.
6. Explorations courses shall not be taken sooner than the semester in which you pass 60 units.
7. Credit/No Credit grades cannot be used in Section I (Communication and Critical Thinking or Section II.A.4. Mathematics/ Quantitative Reasoning).
8. Courses numbered 296, 299, 496, 499, 500-level 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 unit 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 completed one or more areas of CSU general education pattern at a California community college or another CSU campus, some of the SDSU general education area requirements may be met. If you have transfer courses from a California community college, a CSU or UC campus (but have not completed any general education area), these courses may be used in the appropriate area of the SDSU general education pattern. Consult with an adviser at the Academic Advising Center to determine which requirements you must complete.

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

## Freshman Registration Requirements

All students entering SDSU as freshmen are required to register for a specific sequence of lower division General Education courses in the areas of I.1. Oral Communication, I.2. Composition, I.3. Intermediate Composition and Critical Thinking, II.4. and Mathematics/Quantitative Reasoning. Freshmen whose scores on the Entry Level Mathematics (ELM) and English Placement Test (EPT) examinations are below passing must enroll in the appropriate remedial course in the first semester. Freshmen must begin the required sequences in their first semester and continue in subsequent semesters until they complete the sequences. The registration system will enforce enrollment in the required courses. This enforcement will occur every semester until the required sequences are completed.

Students who do not successfully complete their remediation requirements within one year of their initial enrollment will be administratively disqualified.

## Specialized General Education Patterns

Engineering, Liberal Studies, Nursing, and single subject credential majors should refer to the description of their major in the Courses and Curricula section of the General Catalog for a listing of General Education requirements.

## I. COMMUNICATION AND CRITICAL THINKING (9 units)

You may not use Credit/No Credit grades in this section. Complete one course from each of the following three sections.

1. Oral Communication. Complete one course.

Africana Studies 140. Oral Communication (3)
Chicana and Chicano Studies 111A. Oral Communication (3)
Communication 103. Oral Communication (3)
2. Composition

Africana Studies 120. Composition (3)
Chicana and Chicano Studies 111B. Written Communication (3)
English 100. Rhetoric of Written Argument (3) [Same course as Rhetoric and Writing Studies 100.]
General Studies 260A. Composing Identities (3)
Linguistics 100. English Composition for International Students (3)
Rhetoric and Writing Studies 100. Rhetoric of Written Argument (3) [Same course as English 100.]
Rhetoric and Writing Studies 101. Rhetoric of Written Argument (3)
3. Intermediate Composition and Critical Thinking

Africana Studies 200. Intermediate Expository Writing and Research Fundamentals (3)
Chicana and Chicano Studies 200. Intermediate Expository Research and Writing (3)
English 200. Rhetoric of Written Arguments in Context (3) [Same course as Rhetoric and Writing Studies 200.]
General Studies 260D. Imagining Communities (3)
Linguistics 200. Advanced English for International Students (3) Philosophy 110. Critical Thinking and Composition (3)
Rhetoric and Writing Studies 200. Rhetoric of Written Arguments in Context (3) [Same course as English 200.]

## II. FOUNDATIONS (28 units)

No more than $\mathbf{7}$ units total may be taken in any one department in Foundations and Explorations combined and no more than 10 units may be taken in any one department in Foundations, American Institutions, and Explorations combined.
A. Natural Sciences and Quantitative Reasoning.

Complete one course from each of the following four sections. (For majors in the sciences and related fields refer to the section "Special Provision for Majors in the Sciences and Related Fields.")

## 1. Physical Sciences

Astronomy 101. Principles of Astronomy (3)
Astronomy 201. Astronomy for Science Majors (3)
Chemistry 100. Introduction to General Chemistry with Laboratory (4)

+ Geography 101. Principles of Physical Geography (3) [Cannot be used in combination with Anthropology 101.]
+ Geography 103. Weather and Climate (3) [Cannot be used in combination with Anthropology 101.]
Geological Sciences 100. Planet Earth (3)
Geological Sciences 104. Earth Science (3)
Natural Science 100. Physical Science (3)
Oceanography 100. The Ocean Planet (4)
Physics 107. Introductory Physics with Laboratory (4)

2. Life Sciences

+ Anthropology 101. Human Biocultural Origins (3) [Cannot be used in combination with Geography 101 or 103.]
Biology 100. General Biology (3)
Biology 101. World of Animals (3)
Biology 203. Understanding Biology (4)

3. Laboratory

Astronomy 109. Astronomy Laboratory (1)
Biology 100L. General Biology Laboratory (1)
Biology 101L. World of Animals Laboratory (1)
Biology 203. Understanding Biology (4)
Chemistry 100. Introduction to General Chemistry with Laboratory (4)
Geography 101L. Physical Geography Laboratory (1)
Geological Sciences 101. Dynamics of the Earth Laboratory (1)
Oceanography 100. The Ocean Planet (4)
Physics 107. Introductory Physics with Laboratory (4)
4. Mathematics/Quantitative Reasoning

You may not use Credit/No Credit grades in this section.
Administration, Rehabilitation and Postsecondary Education 201. Introductory Statistics and Research Design for Education (3) [Priority given to students in the Bachelor of Vocational Education program.]
Biology 215. Biostatistics (3)
Computer Science 100. Fundamental Ideas in Computer Science (3)
Economics 201. Statistical Methods (3)
Geography 104. Geographic Information and Spatial Reasoning (3)
Mathematics 118. Topics in Mathematics (3)
Mathematics 120. Calculus for Business Analysis (3)
Mathematics 121. Calculus for the Life Sciences I (3)
Mathematics 122. Calculus for the Life Sciences II (3)
Mathematics 141. Precalculus (3)
Mathematics 150. Calculus I (4)
Mathematics 151. Calculus II (4)
Mathematics 210. Number Systems in Elementary Mathematics (3)
Mathematics 211. Geometry in Elementary Mathematics (3)
Mathematics 245. Discrete Mathematics (3)
Mathematics 252. Calculus III (4)
Mathematics 254. Introduction to Linear Algebra (3)
Philosophy 120. Introduction to Logic (3)
Political Science 201. Elementary Statistics for Political Science (3)

[^6]Psychology 270. Statistical Methods in Psychology (3)
Sociology 201. Elementary Social Statistics (3)
Statistics 119. Elementary Statistics for Business (3)
Statistics 250. Statistical Principles and Practices (3)

## Special Provision for Majors in the Sciences and Related Fields

Some majors require or recommend coursework in astronomy, biology, chemistry, geological sciences, or physics in preparation for the major. If you have declared one of these majors you may substitute those courses for courses listed under either Life Sciences or Physical Sciences (as appropriate) in Section II. A above.
B. Social and Behavioral Sciences. Complete two courses taken from different departments ( 6 units). Students who complete General Studies 260C and 260F will clear the Social and Behavioral Sciences requirement.

Africana Studies 101A. Introduction to Africana Studies: Social and Behavioral Sciences (3)
Africana Studies 270. African Foundations of Africana Studies (3)
Anthropology 102. Introduction to Cultural Anthropology (3)
Asian Studies 100. State and Society in the Asia Pacific (3)
Child and Family Development 135. Principles of Family Development (3)
Economics 101. Principles of Economics (3)
Economics 102. Principles of Economics (3)
General Studies 130. Child and Adolescent Development from a Cultural Perspective (3) [For Liberal Studies majors only.]
General Studies 260C. Composing Identities (3)
General Studies 260F. Imagining Communities (3)
Geography 102. Principles of Cultural Geography (3)
Geography 106. World Regional Geography (3)
Gerontology 101. Introduction to Human Aging (3)
Linguistics 101. Introduction to Language (3)
Political Science 103. Introduction to Comparative Politics (3)
Psychology 101. Introductory Psychology (3)
Sociology 101. Introductory Sociology: The Study of Society (3)
Women's Studies 101. Women: Self, Identity and Society (3)
C. Humanities. Complete a course in each of four of the following five areas (12 units). General Studies 260B, Composing Identities and 260E, Imagining Communities, satisfy a total of six units under C. Humanities. Students taking both of these courses must also complete two additional courses from two of the following areas (excluding C.2.) to fulfill the 12 unit requirement in Humanities: 1. Literature, 3. History, 4. Philosophy and Religious Studies, or 5. Foreign Language.

## 1. Literature

Africana Studies 260. Africana Literary Study (3)
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. Introduction to Art History I (3)
Art 259. Introduction to Art History II (3)
Asian Studies 101. Asian Thought and Cultures (3)
Chicana and Chicano Studies 100. The Mexican American Heritage (3)
Classics 140. Our Classical Heritage (3)
Dance 181. Introduction to Dance (3)
European Studies 101. Introduction to European Studies (3)
German 150. Introduction to German Studies (3)
Humanities 101. Introduction to Humanities (3)
Humanities 140. Mythology (3)

Jewish Studies 130. The Jewish Heritage (3)
Music 151. Introduction to Music (3)
Russian 110. Slavic Legends and Tales (3)
Television, Film and New Media 160, Cinema as Art and Communication (3)
Theatre 100. Theatre and Civilization (3)
Theatre 120. Heritage of Dramatic Literature (3)
Women's Studies 102. Women: Images and Ideas (3)
3. History

History 100. World History (3)
History 101. World History (3)
History 105. Western Civilization to the Seventeenth Century (3)
History 106. Western Civilization Since the Sixteenth Century (3)
4. Philosophy and Religious Studies

Africana Studies 240. Africana Intellectual Thought (3)
Philosophy 101. Introduction to Philosophy: Ethics (3)
Philosophy 102. Introduction to Philosophy: Knowledge and Reality (3)
Philosophy 103. Historical Introduction to Philosophy (3)
Religious Studies 100. Exploring the Bible (3)
Religious Studies 101. World Religions (3)
Religious Studies 103. American Religious Diversity (3)
5. Foreign Language

Arabic 101. Elementary Arabic I (4)
Arabic 102. Elementary Arabic II (4)
Arabic 201. Intermediate Arabic I (4)
Arabic 202. Intermediate Arabic II (4)
Chinese 101. Elementary Chinese I (5)
Chinese 102. Elementary Chinese II (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)
Filipino 101. Elementary Filipino I (4)
Filipino 102. Elementary Filipino II (4)
Filipino 201. Intermediate Filipino (4)
French 100A. Elementary French I (5)
French 100B. Elementary French II (5)
French 201. Readings in French (3)
French 210. French Grammar (3)
French 220. Grammar of Spoken French (3)
French 221. Writing French (3)
German 100A. First Course in German (5)
German 100B. Second Course in German (5)
German 202. Readings in German (3)
German 205A. Third Course in German (4)
German 205B. Fourth Course in German (4)
Hebrew 101. Elementary Hebrew I (3)
Hebrew 102. Elementary Hebrew II (3)
Hebrew 201. Intermediate Hebrew (4)
Italian 100A. Elementary Italian I (5)
Italian 100B. Elementary Italian II (5)
Italian 201. Reading and Speaking Italian (3)
Italian 210. Intermediate Grammar and Composition (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)
Latin American Studies 110. Elementary Mixtec I (4)
Latin American Studies 111. Elementary Mixtec II (4)
Linguistics 242. Foreign Language Experiences (3)
Persian 101. Elementary Modern Persian I (4)
Persian 102. Elementary Modern Persian II (4)
Portuguese 101. Elementary/Intensive Portuguese I (5)
Portuguese 201. Elementary/Intensive Portuguese II (5)

Russian 100A. Beginning Russian 1 (5)
Russian 100B. Beginning Russian 2 (5)
Russian 200A. Intermediate Russian 1 (5)
Russian 200B. Intermediate Russian 2 (5)
Spanish 101. Introduction to Spanish I (4)
Spanish 102. Introduction to Spanish II (4)
Spanish 103. Introduction to Spanish III (4)
Spanish 202. Intermediate (4)
Spanish 211. Intermediate Conversation and Reading (3)
Spanish 212. Intermediate Conversation and Writing (3)
Spanish 281. Intermediate Spanish for U.S. Hispanics (3)
Spanish 282. Intermediate Spanish for U.S. Hispanics (3)
Speech, Language, and Hearing Sciences 159. American Sign Language I (4)
Speech, Language, and Hearing Sciences 259. American Sign Language II (4)
Speech, Language, and Hearing Sciences 289. American Sign Language III (4)

## 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. Refer to section IV. Explorations for exceptions. Upper division courses in the major department may be used to satisfy General Education, Section III, American Institutions.

## IV. EXPLORATIONS

Courses in this area must not be taken sooner than the semester in which you achieve upper division standing ( 60 units passed). Upper division courses in the major department may not be used to satisfy General Education, Section IV. Explorations.

No more than $\mathbf{7}$ units total may be taken in any one department in Foundations and Explorations combined and no more than 10 units may be taken in any one department in Foundations, American Institutions, and Explorations combined.

Complete one course each in areas $\mathrm{A}, \mathrm{B}$, and C ( 9 units). One course must be a course in cultural diversity, designated by an *. (Majors in the departments of Astronomy, Biology, Chemistry and Biochemistry, Computer Science, Environmental Sciences, Geological Sciences, Mathematics and Statistics, Natural Science, Nursing, and Physics may replace the area A course with an additional course from area B or C or an upper division American Institutions course if American Institutions requirement was not completed with lower division coursework.)
A. Natural Sciences. Complete one course.

* Anthropology 402. Dynamics of Biocultural Diversity (3)

Astronomy 301. Cosmology and Gravitational Collapse (3)
Astronomy 310. Astrobiology and the Search for Extraterrestrial Life (3)
Biology 307. Biology of Sex (3)
Biology 315. Ecology and Human Impacts on the Environment (3)
Biology 319. Evolution (3)
Biology 321. Human Heredity (3)
Biology 324. Life in the Sea (3)
Biology 326. Plants, Medicines, and Drugs (3)
Biology 327. Conservation of Wildlife (3)
Biology 336. Principles of Human Physiology (3)
Biology 341. The Human Body (3)
Chemistry 300. Mysteries and Molecules (3)
Chemistry 308. Chemistry as a Unifying Science (3)
Computer Science 301. Computers and Society (3)
Environmental Engineering 320. Designing Solutions for Environmental Problems (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)

[^7]Geological Sciences 305. Water and the Environment (3)
Mathematics 303. History of Mathematics (3)
Natural Science 310. Science in Science Fiction (3)
Natural Science 315. History of Science and Technology (3)
Natural Science 317. Development of Scientific Thought (3)
Natural Science 333. Technology and Human Values (3)
Nursing 350. Women's Health Across the Lifespan (3)
Oceanography 320. The Oceans (3)
Physics 301. Energy and the Environment (3)
B. Social and Behavioral Sciences. Complete one course.

* Africana Studies 320. Political Economy of Race and Class (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)
* American Indian Studies 451. American Indian Identity (3) [Same course as Anthropology 451]
* American Indian Studies 460. American Indian Languages (3) [Same course as Linguistics 460]
* American Indian Studies 480. Issues in American Indian Education (3)
* Anthropology 350. Cultures Around the Globe (3)

Anthropology 410. Language in Culture (3)

* Anthropology 430. Anthropology of Law and Dispute Processing (3)
Anthropology 432. Principles of Personality in Culture (3)
* Anthropology 439. Cultural Comparisons Through Film (3)
* Anthropology 442. Cultures of South America (3)
* Anthropology 445. Ethnology of North America (3)
* Anthropology 446. Native Peoples of the Southwest (3)
* Anthropology 448. Cultures of Oceania (3)
* Anthropology 449. Cultures of Sub-Saharan Africa (3)
* Anthropology 450. Cultures of India (3)
* Anthropology 451. American Indian Identity (3) [Same course as American Indian Studies 451]
* Anthropology 452. Japanese Society (3)
* Anthropology 457. Native Cultures of California (3) Asian Studies 300. Asia's Global Future (3)
Asian Studies 303. Imperialism and Nationalism in the Asia Pacific (3)
* Asian Studies 310. Diasporan Communities of the Asia Pacific (3)
${ }^{*} \dagger$ Asian Studies 460. Contemporary Issues in Filipino-American Communities (3)
* Chicana and Chicano Studies 301. Political Economy of the Chicano People (3)
* Chicana and Chicano Studies 303. Chicana and Chicano Community Studies (3)
* Chicana and Chicano Studies 320. Chicana and Chicano Life Styles (3)
* Chicana and Chicano Studies 355. The United States-Mexico International Border (3)
* Communication 371. Intercultural Communication (3)

Communication 408. Mass Communication and Society (3)

* Counseling and School Psychology 420. Popular Culture and Counseling (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)
Exercise and Nutritional Sciences 330. Exercise and Wellness Across the Lifespan (3)
* General Studies 321. Gay and Lesbian Identities in the Modern World (3)
General Studies 330. Plagues Through the Ages (3)
* General Studies 413. Multicultural Aspects of Social Institutions (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 354. Geography of Cities (3)
Geography 370. Environmental and Natural Resource Conservation (3)

* Gerontology 360. Minority and Ethnic Aging (3)
* Gerontology 370. Images of Aging in Contemporary Society (3)
* International Security and Conflict Resolution 300. Global Systems (3)
* International Security and Conflict Resolution 301. Conflict and Conflict Resolution (3)
International Security and Conflict Resolution 310. Our Global Future: Values for Survival (3)
International Security and Conflict Resolution 320. International Security in the Nuclear Age (3)
* Linguistics 344. Language and Gender (3)

Linguistics 354. Language and Computers (3)
Linguistics 420. Linguistics and English (3)

* Linguistics 460, American Indian Languages (3) [Same course as American Indian Studies 460]
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 334. Politics of the Environment (3)
* Political Science 336. Women's Issues in the American Political Process (3)
Political Science 356. Governments of Continental Europe (3)
* Political Science 359. Government and Politics of Russia (3)
* Political Science 361. Governments and Politics of the Developing Areas (3)
* Political Science 362. Governments and Politics of East Asia (3)
* Political Science 363. Governments and Politics of the Middle East (3)
Political Science 370. Political Violence (3)
Psychology 340. Social Psychology (3)
Psychology 351. Psychology of Personality (3)
\# Public Health 353. Human Sexuality and Disease (3)
* Public Health 362. International Health (3)

Recreation 304. Challenges of Leisure (3)
Recreation 305. Wilderness and the Leisure Experience (3)

* Recreation 404. Cross-Cultural Perspectives of Tourism (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)

* Cultural diversity course.
\# Only one of these two courses may be taken for General Education credit.
Either Asian Studies 460 (IV.B.) or History 422 (IV.C.) may be taken for General Education credit.

Sociology 421. The American Family and Its Alternatives (3)
Sociology 430. Social Organization (3)
Sociology 450. Social Change (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 331. Women in Asian Societies (3)
* Women's Studies 370. Women, Law, and Policy (3)
* Women's Studies 375. Sex, Power, and Politics (3)
* Women's Studies 385. Women's Work (3)
C. Humanities. Complete one course.
* Africana Studies 365A. African American Literature to 1900 (3)
* Africana Studies 365B. African American Literature After 1900 (3)
* Africana Studies 385. African American Music (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)
*^Africana Studies 465. Africa in Literature and Film (3) [Same course as French 465]
* Africana Studies 470. Comparative History: Afro-American and African Heritage (3)
* Africana Studies 472. Comparative Slavery (3)
* American Indian Studies 300. American Indian Oral Literature (3)
* American Indian Studies 430. American Indian Poetry and Fiction (3)
* American Indian Studies 440. American Indian History (3)
* American Indian Studies 470. American Indian Religion (3)
* Anthropology 349. Roots of Civilizations (3)
* Anthropology 422. Music and Culture (3)
* Anthropology 424. The Supernatural in Cross-Cultural Perspective (3)
Arabic 301. Advanced Arabic I (4)
Arabic 302. Advanced Arabic II (4)
*^Arabic 330. Arabic Culture (3)
Art 357. World Art in Contemporary Life (3)
* Asian Studies 458. Asian Traditions (3)
* Asian Studies 459. Modern Asian Cultures (3)
* Chicana and Chicano Studies 310. Mexican and Chicano Music (3)
* Chicana and Chicano Studies 335. Chicana and Chicano Literature (3)
* Chicana and Chicano Studies 350A. Chicano History (3)
* Chicana and Chicano Studies 350B. Chicano History (3)
* Chicana and Chicano Studies 375. US/Mexico Border History (3)
* Chicana and Chicano Studies 376. Chicana and Chicano Culture and Thought (3)
* Chicana and Chicano Studies 380. US/Mexico Borderlands Folklore (3)
* Chicana and Chicano Studies 400. Mexican Images in Film (3)
Chinese 301. Advanced Chinese I (3)
Chinese 302. Advanced Chinese II (3)
*^ Chinese 352. Aspects of Chinese Language (3)
Classics 303G. Readings in Greek Prose (3)
Classics 303L. Readings in Latin Prose (3)
Classics 304G. Readings in Greek Poetry (3)
Classics 304L. Readings in Latin Poetry (3)
Classics 310. Classical Mythology (3)
Classics 320. Classical Literature (3)
Classics 330. Classical Drama (3)
Classics 340. Classical Civilization (3)
Classics 350. Classics and Cinema (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 409. Science Fiction (3)
English 410. Literature and the Passions (3)
English 494. Modern Fiction of the United States (3)
European Studies 301. Contemporary Europe (3)
European Studies 424. European Cinema (3)
French 301. Advanced Grammar and Composition (3)
French 302. Translation and Stylistics (3)
French 305A. Survey of French Literature (3)
French 305B. Survey of French Literature (3)
French 421. French Civilization (3)
French 422. Contemporary France (3)
*^French 424. French Cinema and Theory (3)
${ }^{*}$ ^French 465. Africa in Literature and Film (3)
[Same course as Africana Studies 465]
* General Studies 322. Gay and Lesbian History and Culture (3) General Studies 450. Life and Culture Semester Abroad (3)
German 300. Readings in Contemporary German Culture (3)
German 301. Grammar and Composition (3)
^ German 320. German Film (3)
* Hebrew 330. Hebrew Discourse and Literature (3)
* Hebrew 471. Kabbalah as a Symbolic System (3)
* History 402. History of Childhood (3)
* History 406. History of Sexuality (3)

History 407. Early Modern Europe (3)
History 408. Modern Europe (3)

* History 415. Pre-Contact and Colonial Latin America (3)
* History 416. Modern Latin America (3)
* History 420. Asia's Dynamic Traditions (3)
* History 421. Asia's Emerging Nations (3)
*t History 422. Southeast Asian and Filipino Experience in America (3)
* History 436. Modern Jewish History in Feature Films (3)

History 440. The Holocaust and Western Civilization (3)
History 441. Environmental Problems in Historical Perspective (3)
History 442B. People Out of Our Past (3)

* History 473. Middle Eastern History from the Advent of Islam to 1500 (3)
* History 474. The Middle East Since 1500 (3)
* History 475. History of Africa to the Nineteenth Century (3)
* History 476. History of Africa Since the Nineteenth Century (3)
* History 488. Modern Jewish History (3)

Humanities 310. French Civilization (3)
Humanities 320. German Civilization (3)
Humanities 330. Russian Civilization (3)
Humanities 340. Italian Civilization (3)
Humanities 370. Humanities in America (3)
Humanities 401. The Medieval Heritage (3)
Humanities 402. The Renaissance (3)
Humanities 403. The Baroque and the Enlightenment (3)
Humanities 404. The Modern European Heritage (3)

* Humanities 460. African Civilizations (3)

Italian 301. Advanced Oral and Written Composition (3)
Italian 305A. Italian Literature (3)
Italian 421. Italian Civilization (3)
Japanese 311. Third Year Japanese I (4)
Japanese 312. Third Year Japanese II (4)

[^8]Linguistics 410. History of English (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 351D. Jazz in America (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 and Literature (3)

* Philosophy 351. Chinese Philosophy (3)

Portuguese 301. Intermediate Portuguese Grammar and Composition (3)
Portuguese 401. Advanced Portuguese Grammar and Composition (3)
Professional Studies and Fine Arts 320. Creativity and Communication in the Arts (3)
Religious Studies 301. Hebrew Bible (3)
Religious Studies 305. The New Testament (3)

* Religious Studies 310. The Qur'an (3)

Religious Studies 320. Judaism (3)
Religious Studies 325. Christianity (3)

* Religious Studies 328. Islam (3)
* Religious Studies 333. Ancient Near Eastern Religions (3)
* Religious Studies 338. Buddhism (3)
* Religious Studies 339. Religions of India (3)
* Religious Studies 345. Religions of East Asia (3)

Religious Studies 350. Dynamics of Religious Experience (3)
Religious Studies 353. Religion and Psychology (3)
Religious Studies 358. Death, Dying, and the Afterlife (3)
Religious Studies 363. Religion and the Sciences (3)
Religious Studies 364. Religion and Film (3)

* Religious Studies 370. Women in Religion (3)
* Religious Studies 373. Women and the Bible (3)

Religious Studies 376. Nature, Spirituality, Ecology (3)
Religious Studies 378. Religion and the Marketplace (3)
Religious Studies 379. Religious Violence and Nonviolence (3)
Religious Studies 395. Alternative Religious Movements (3)
Russian 301. Advanced Grammar and Composition (3)
$\wedge$ Russian 305A. Russian Literature of the Nineteenth Century (3)
^ Russian 305B. Russian Literature of the Twentieth Century (3)
$\wedge$ Russian 310. Russian and East European Cinema (3)
Russian 430. Russian Civilization (3)
*^ Russian 435. Russia and Central Europe Jewish Literature (3)
Spanish 340. Spanish Civilization (3)
Spanish 341. Spanish American Civilization (3)

* Spanish 342. Mexican Civilization (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)
Television, Film and New Media 363. International Cinema (3) [Maximum GE credit 3 units]
Television, Film and New Media 430, History of Prime-Time Television (3)
Television, Film and New Media 462, Documentary and Propaganda Film/Television (3)
Theatre 460A. History of the Theatre (3)
Theatre 460B. History of the Theatre (3)

* Theatre 465. Theatre of Diversity (3)
* Women's Studies 340. Women in Modern European History (3)
* Women's Studies 352. Women in Literature (3)
* Women's Studies 360. Women's Sexuality and the Body (3)

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## 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 the Registrar. Deadlines by which applications must be received in the Office of the Registrar are published each year in the fall semester Class Schedule. A nonrefundable application fee of $\$ 35.00$ 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 Graduate Admissions.

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 $\$ 35.00$ fee.

Graduation requirements will be determined by the continuous enrollment regulations. A student not in a period of continuous enrollment at the time of filing for a bachelor's degree must meet the catalog requirements in effect at the time of filing. Continuous enrollment is defined here as attendance in at least one semester or two quarters within a calendar year. See "Election of Regulations for Graduation" below for complete regulations. After the degree is granted no changes can be made to the undergraduate record.

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.

NOTE: San Diego State University does not backdate degrees. The semester in which all your requirements are completed is the semester in which your degree will be posted to your academic record as long as you have an active application for graduation on file.

## 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 undergraduate students who graduated fall of the previous year, candidates for graduation in spring and summer of the current year, graduate students who graduated summer or fall of the previous year, and candidates for spring of the current year. 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 March.

## Summary of Curricula Offered

|  | Majors | Applied Arts and Sciences |  | Liberal Arts and Sciences | Graduate Curricula |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | BA, BFA | BS | BA | MA, MFA | MS, EdS | $\begin{gathered} \text { AuD, PhD, } \\ \text { EdD } \\ \hline \end{gathered}$ |
|  | Accountancy <br> \# Accounting <br> Aerospace engineering <br> Afro-American studies <br> Anthropology <br> Applied mathematics <br> Art. <br> Asian studies <br> Astronomy <br> Audiology <br> Bioengineering <br> Biology <br> Biomedical quality systems <br> Business administration <br> Business administration and juris doctor <br> Business administration/Latin American studies <br> Chemical physics. <br> Chemistry <br> Chicana and Chicano studies <br> Child development <br> City planning <br> Civil engineering <br> Classics. <br> Communication <br> Comparative literature <br> Computational science <br> Computer engineering <br> Computer science <br> Counseling <br> Creative writing <br> Criminal justice administration <br> Criminal justice and criminology <br> Dance <br> Ecology <br> Economics <br> Education <br> Educational leadership <br> Educational technology <br> School psychology <br> Teaching and learning <br> Electrical engineering <br> Engineering <br> English <br> Environmental engineering <br> Environmental sciences <br> European studies <br> Exercise physiology <br> Exercise physiology and nutritional science <br> \# Finance <br> \# Financial services <br> Foods and nutrition <br> French <br> Geography <br> Geological sciences <br> German <br> Gerontology <br> Health science <br> History <br> Hospitality and tourism management <br> Humanities <br> \# Information systems <br> Interdisciplinary studies <br> International business <br> International security and conflict resolution Japanese <br> Journalism. <br> Juris doctor and business administration <br> Juris doctor and social work <br> Kinesiology <br> Language and communicative disorders <br> Latin American studies <br> Latin American studies/business administration <br> Latin American studies and public health <br> Liberal arts and sciences <br> Liberal studies <br> Linguistics <br> \# Management <br> \# Marketing <br> Mathematics <br> Mathematics and science education <br> Mechanical engineering <br> Microbiology <br> Modern Jewish studies <br> Music. <br> Nursing <br> \# An emphasis within the B.S. in Business Administration. |  |  |  |  | MS | - |
|  |  | - | BS | - | - | - | - |
|  |  | - | BS | - | - | MS | - |
|  |  |  | - | BA | MA | - | - |
|  |  | - |  | BA | MA | - | - |
|  |  | BA | - | BA | MA, MFA | MS | - |
|  |  |  |  | BA | MA | - |  |
|  |  | - | BS | BA | - | MS | - |
|  |  |  |  |  |  | S | AuD |
|  |  | - | BS | BA | MA | MS | PhD |
|  |  |  |  |  |  | MS |  |
|  |  | - |  |  | MBA | MS | - |
|  |  | - |  |  | MBA/JD | - | - |
|  |  | - | $\overline{\text { BS }}$ | - | MBA/MA | - | - |
|  |  | - | BS | BA | MA | MS | PhD |
|  |  |  |  | BA | MA | - | - |
|  |  |  | BS | - | - | MS | - |
|  |  | - | - | - | - | MCP | - |
|  |  | - | BS | - | - | MS | - |
|  |  | $-$ | - | BA | - | - | - |
|  |  | BA | - | BA | MA | - | - |
|  |  | - | - | BA | - | $\stackrel{-}{\text { MS }}$ | PhD |
|  |  |  | BS | - | - | - | - |
|  |  | - | BS | - | - | MS | - |
|  |  | - | - | - | - | MS | - |
|  |  | - | - | - | MFA | - | - |
|  |  |  | BS | - | - | - | - |
|  |  |  | - | - | - | MS | - |
|  |  | BFA | - | BA | - | - | - |
|  |  | - | - | - | A | - | PhD |
|  |  | - | - | BA | MA | - | - |
|  |  | - | - | - | MA | - | PhD |
|  |  | - | - | - | - | - | EdD |
|  |  | - | - | - | - | EdS | - |
|  |  | - | - | - | - | - | EdD |
|  |  | - | BS | - | - | MS | - |
|  |  | - | - | BA | - | MEng | PhD |
|  |  | - | $\stackrel{-}{\text { BS }}$ | BA | MA | - | - |
|  |  | - | BS | - | - | - | - |
|  |  | - | BS | BA | - | - | - |
|  |  | - | - | - | - | MS | - |
|  |  | - | - | - | - | MS/MS | - |
|  |  | - | BS | - | - | - | - |
|  |  | - | BS | - | - | - | - |
|  |  | - | ${ }_{\text {BS }}$ | $\stackrel{-}{B A}$ | $\overline{\text { MA }}$ | - | - |
|  |  | - | BS | BA | MA | MS | PhD |
|  |  | - | BS | - | - | MS | - |
|  |  | - | - | BA | - | - | - |
|  |  | - | $\stackrel{-}{\text { BS }}$ | BA | - | MS | - |
|  |  | - | BS | $\stackrel{-}{B A}$ | $\stackrel{-}{\text { MA }}$ | - | - |
|  |  | - | BS | - | MA | - | - |
|  |  | - | - | BA | - | - | - |
|  |  | - | BS | BA | - | - | - |
|  |  | - | - | BA | MA | MS | - |
|  |  | - | - | BA | - | - | - |
|  |  | - | - | BA | - | - | - |
|  |  | - | - | BA | - | - | - |
|  |  | - | - | - | MBA/JD | - | - |
|  |  | - | $\overline{-}$ | - | - | MSW/JD | - |
|  |  | - | BS | - | MA | - | - |
|  |  | - | - | BA | MA | - | PhD |
|  |  | - | - | BA | MBA/MA | - | - |
|  |  | - | - | - | MA/MPH | - | - |
|  |  | A | - | - | MA | - | - |
|  |  | BA | - | - | - | - | - |
|  |  | - | - | BA | MA | - | - |
|  |  | - | BS | - | - | - | - |
|  |  | - | BS | BA | $\overline{M A}$ | - | - |
|  |  | - | - | - | - | - | PhD |
|  |  | - | BS | - | - | MS | - |
| SDSU General Catalog 2006-2007 |  | - | $\begin{aligned} & - \\ & \mathrm{BM} \\ & \mathrm{BS} \end{aligned}$ | BA <br> BA <br> BA <br> - | $\overline{\mathrm{MA}}$ | MM <br> MS | $\begin{aligned} & - \\ & - \\ & - \\ & - \end{aligned}$ |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
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## Summary of Curricula Offered - continued

| Majors | Applied Arts and Sciences |  | Liberal Arts and Sciences | Graduate Curricula |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BA, BFA | BS | BA | MA, MFA | MS, EdS | $\begin{aligned} & \text { AuD, PhD, } \\ & \text { EdD } \end{aligned}$ |
| Nutritional sciences |  | - |  |  | MS | - |
| Nutritional science and exercise physiology.... | - | - | - | - | MS/MS | - |
| Philosophy ........................................... |  | - | BA | MA | - | - |
| Physical science.. | BA | - |  |  | - |  |
| Physics ............. | BA | BS | BA | MA | MS | - |
| Poilitical science. | - | - | BA | MA |  |  |
| Psychology ..... | - | - | BA | MA | MS | PhD |
| Public administration | BA | - | - | - | MPA |  |
| Public health ... | - | - | - | - | MPH, MS | PhD |
| Public health and Latin American studies ........... | - | - | - | - | MPH/MA |  |
| Public health and social work.............. | - | - | - | - | MSW/MPH | - |
| \# Readiological health physics................................. | - |  | - | - | MS | - |
| \# Real estate............................................... | - | BS | - | - | - | - |
| Recreation administration. <br> Regulatory affairs | - | BS | - | - | MS | - |
| Rehabilitation counseling ................................... | - | - | - | - | MS | - |
| Religious studies. | - | - | BA | - |  | - |
| Rhetoric and writing studies. | - | - | - | MA | - | - |
| Russian... | - | - | BA | - | - | - |
| Russian and Central European studies... | - | - | BA | - | - | - |
| Social science ......................................... | - | - | BA | - | - ${ }^{-}$ | - |
| Social work ..................... | - | - | $\stackrel{\text { BA }}{ }$ | - | MSW | - |
| Social work and public health | - | - | - | - | MSW/MPH | - |
| Sociology. | - | - | BA | MA | - | - |
| Spanish....................................... | - | - | BA | MA | - | - |
| Speech, language, and hearing sciences Statistics | - | $\overline{\text { BS }}$ | $\stackrel{B A}{-}$ | MA | MS | - |
| Television, film and new media production ... | - | BS | - | MA | S | - |
| Theatre arts... | BA | - | - | MA, MFA | - | - |
|  |  | - | BA | - | - | - |
| Vocational education ......................... | BVE | $-$ | $\overline{B A}$ | MA | - | - |
| \# An emphasis within the B.S. in Business Administration. |  |  |  |  |  |  |

## Emphases and Concentrations

An emphasis 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 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
graphic design
interior design
multimedia
painting and printmaking
sculpture
Biology (BS, Applied Arts and
Sciences)
Emphases:
bioengineering
cellular and molecular biology
ecology
evolution and systematics
marine biology
zoology
Business Administration (BS, Applied
Arts and Sciences)
Emphasis:
agribusiness (IVC)
Chemistry (BS, Applied Arts and
Sciences)
Emphasis:
biochemistry
Classics (BA, Liberal Arts and
Sciences)
Emphases:
classical humanities
classical language

Communication (BA, Liberal Arts and Sciences)
Emphases:
advertising
public relations
telecommunications and film
Economics (BA, Liberal Arts and
Sciences)
Emphases:
international economics
preprofessional studies
Environmental Sciences (BS, Applied
Arts and Sciences)
Emphasis:
watershed science
European Studies (BA, Liberal Arts
and Sciences)
Emphases in language:
French
German
Italian
Portuguese
Russian
Spanish
Geography (BA, Liberal Arts and Sciences)
Emphases:
methods of geographical analysis natural resource and environmental physical geography urban and regional analysis

## Geography

(BS, Applied Arts and Sciences)
Emphasis: geographic information science

## Geological Sciences

(BS, Applied Arts and Sciences)
Emphases:
general geology
engineering geology
geochemistry
geophysics
hydrogeology marine geology paleontology

German (BA, Liberal Arts and Sciences) Emphasis:
German studies
Health Science (BS, Applied Arts and Sciences)
Emphasis:
public health

## Hospitality and Tourism

Management (BS, Applied Arts and
Sciences)
Emphases:
hotel operations and management
restaurant operations and management
global tourism management
events, conventions, and attractions management
Humanities (BA, Liberal Arts and
Sciences)
Emphasis:
European humanities
International Business (BA, Liberal
Arts and Sciences)
Emphasis in language:
Arabic
Chinese
French
German
Italian
Japanese
Portuguese
Russian
Spanish
Emphasis in regional/cultural studies:
Africa-Middle East
Asia-Pacific
Latin America
North America
Russia and Central Europe
Western Europe
Kinesiology (BS, Applied Arts and
Sciences)
Emphases:
athletic training
fitness, nutrition, and health
physical education
prephysical therapy

Mathematics (BS, Applied Arts and Sciences)
Emphases:
applied mathematics
computational science
mathematical finance
science
Microbiology (BS, Applied Arts and
Sciences)
Emphasis:
clinical laboratory science 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 Middle East environment
Statistics (BS, Applied Arts and
Sciences)
Emphases:
actuarial science
statistical computing
Theatre Arts (BA, Applied Arts and
Sciences)
Emphases:
children's drama
design and technology for theatre
design for television and film performance

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## GRADUATE MAJORS

Applied Mathematics (MS)
Concentrations:
dynamical systems
mathematical theory of communication systems
Art (MA)
Concentrations:
art history
studio arts
Biology (MA or MS)
Concentrations: ecology
evolutionary biology
molecular biology
physiology
Business Administration (MS)
Concentrations:
entrepreneurship
finance
financial and tax planning
human resource management
information systems
international business
management
marketing
operations management
real estate
taxation
Civil Engineering (MS)
Concentration:
environmental engineering
Computational Science (MS)
Concentration:
professional applications

## Counseling (MS)

Concentrations:
marriage and family therapy
school counseling

## Education

Concentrations (MA):
counseling
educational leadership
educational research
educational technology
elementary curriculum and instruction
mathematics education
policy studies in language and cross-cultural education
reading education
secondary curriculum and instruction
special education
Geography
Concentrations (MS):
geographic information science watershed science
Nursing (MS)
Concentrations:
advanced practice nursing of adults and the elderly
community health nursing
nursing systems administration

## Psychology (MS)

Concentrations:
applied psychology
clinical psychology (included within the Ph.D. program; not available separately)
Public Administration (MPA)
Concentrations:
city planning
criminal justice administration

## Public Health

Concentrations (MPH):
biometry
environmental health
epidemiology
health behavioral science
health promotion
health services administration
Concentrations (MS):
industrial hygiene
toxicology
health services administration (public health and social work)
Social Work and Public Health (MS)
Concentration:
health services administration
Speech, Language, and Hearing
Sciences (MA)
Concentrations:
speech-language pathology
education of the deaf
communicative sciences
Statistics (MS)
Concentration:
biostatistics
Theatre Arts (MFA)
Concentrations:
acting
design and technical theatre musical theatre

## Credentials Offered

Teaching Credentials
Multiple subject
Multiple subject cross-cultural, language and academic development (CLAD) emphasis
Multiple subject bilingual cross-
cultural language and
academic development (BCLAD) emphasis: Spanish
Single subject
Single subject cross-cultural, language, and academic development (CLAD) emphasis
Single subject bilingual crosscultural language and academic development (BCLAD) emphasis: Spanish
Specialist Credentials
BCLAD
Education specialist for the deaf and hard of hearing, levels I and II
Reading/language arts
Resource specialist certificate of competence
Special education:
Early childhood special education, levels I and II; internship credential Mild/moderate disabilities, levels I and II; internship credential
Moderate/severe disabilities, levels I and II; internship credential
Physical and health impairments, level I
Service Credentials
Administrative
Child welfare and attendance
Clinical-rehabilitative
Pupil personnel: School counseling School psychology School psychology (internship credential)
School social work School nurse

## Minors for the Bachelor's Degree

## Accounting

Advertising
Aerospace studies
African studies
Afro-American studies
American Indian studies

## A

Art
Art history
Asian studies
Astronomy
Biology
Business administration
Chemistry
Chicana and Chicano studies
Child development
Chinese
Classics
Communication
Comparative literature
Computer science
Dance
Economics
Educational technology
Energy studies
Engineering
English
Environment and society
European studies
Finance
French
Geography
Geological sciences
German
Gerontology
Health science
History
History of science and technology
Humanities
Information systems
International security and conflict
resolution
Italian
Islamic and Arabic studies
Japanese
Journalism
Judaic studies
Latin American studies
Linguistics
Management
Marketing
Mathematics
Media arts and technology
Military science
Music
Naval science
Oceanography
Philosophy
Physics
Political science
Portuguese
Psychology
Public administration
Public relations
Real estate
Recreation
Religious studies
Rhetoric and writing studies
Russian
Small business management
(Imperial Valley Campus only)
Social work
Sociology
Spanish
Statistics
Television, film and new media
Theatre Arts
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 <br> (nondegree)

Accounting
Applied gerontology
Applied linguistics and English as a second language (ESL)
Artist diploma
Bilingual speech-language pathology
Biotechnology
Business administration (Imperial Valley campus only)
Children's/adolescent literature
Communications systems
Community college teaching
Court interpreting (Imperial Valley campus only)
Cross-cultural language and academic development (CLAD or BCLAD)
Cultural and community trauma studies
Developing gifted potential
Distance education
Early childhood special education
Environmental studies
Family life education
Fire protection administration
Geographic information science
Instructional software design
Instructional technology
Mathematics specialist
Mexico (BCLAD)
Personal financial planning
Preventive medicine residency
Professional computational science
Public administration
(Imperial Valley campus only)
Regulatory affairs
Rehabilitation administration
Rehabilitation technology
Single subject mathematics
Supported employment and transition specialist
Transborder public administration and governance
Translation studies (Spanish)
United States-Mexico border studies
Workforce education and lifelong learning
The following non-credit programs
are available through Extension only.
Business and branding development
Business and executive coaching
Business of wine
Casino gaming
Community economic development
Construction inspection technology
Construction practices
Distance education
E-business
Government contract management
Hospitality
Human resource management
Human resources international
Lean manufacturing
Maritime industry
Marketing and media specialist
Medical office procedures
Meeting and events planning
Occupational health and safety management
Operations resource management
Personal fitness training
Project management
Sales excellence
Solid modeling with solidworks
Technical and scientific writing
Telecommunications
Total quality management

# Major and Credential Codes* 

| MAJOR CODE KEY: |  |  |
| :---: | :---: | :---: |
| $U=$ Undergraduate |  |  |
| $\mathrm{G}=$ Graduate |  |  |
| $+=\begin{gathered}\text { Emphasis within another bachelor's } \\ \text { degree }\end{gathered}$ |  |  |
| $\phi=\begin{gathered}\text { Concentration within another master's or } \\ \text { Ph.D. degree }\end{gathered}$ |  |  |
| \# = Specializations within another bachelor's degree |  |  |
|  | MAJOR | MAJOR CODE |
|  | Accountancy | 05021 G |
| + | Accounting | 05021 U |
|  | Afro-American Studies | 22111 U |
|  | Anthropology | 22021 U \& G |
|  | Applied Mathematics | 17031 G |
|  | Art | 10021 U \& G |
| $+\phi$ | ¢ Art History | 10031 U \& G |
| + | Graphic Design | 10091 U |
| + | Interior Design | 02031 U |
| + | Multimedia | 06991 U |
|  | Art - MFA | 10022 G |
|  | Asian Studies | 03011 U \& G |
|  | Astronomy | 19111 U \& G |
|  | Audiology | 12202 G |
|  | Biology | 04011 U \& G |
|  | Biomedical Quality Systems | 09994 G |
|  | Business Administration | 05011 G |
| + | Agribusiness (IVC) | 01121 U |
|  | Business Administration and Juris Doctor (concurrent program) 05995 G |  |
|  |  |  |
|  |  |  |
|  | Latin American Studies (concurrent program) | 49061 G |
|  | Chemical Physics | 19081 U |
|  | Chemistry | 19051 U \& G |
| + | Biochemistry | 19051 U |
|  | Chicana and Chicano |  |
|  | Studies | 22131 U \& G |
|  | Child Development | 08231 U \& G |
|  | City Planning | 02061 G |
|  | Classics | 15041 U |
|  | Clinical Psychology | 20031 G |
|  | Communication | 06011 U \& G |
| + | Advertising | 06041 U |
| + | Public Relations | 05992 U |
| + | Telecommunications and Film | 06033 U |
|  | General Communication | 15061 U |
|  | Comparative Literature | 15031 U |
|  | Computational Science | 07992 G |
|  | Computer Science | 07011 U \& G |
|  | Counseling | 08261 G |
|  | Creative Writing | 15071 G |
|  | $\not \subset$ Criminal Justice |  |
|  | Administration | 21051 U \& G |
|  | Criminal Justice and |  |
|  | Criminology | 22091 G |
|  | Dance | 10081 U |
|  | Dance - BFA | 10082 U |
|  | ¢ Ecology | 04201 G |
|  | Economics | 22041 U \& G |
| + | International Economics | 22042 U |




Education
$\not \subset \quad$ Counseling
$\not \subset$ Educational Leadership
ф Educational Research
\& Educational Technology
ф Elementary Curriculum and Instruction
 K-8
$\notin$ Policy Studies in Language and Cross-Cultural Education
\& Reading Education
$\not \subset$ Secondary Curriculum and Instruction
\& Special Education
Engineering
Aerospace Engineering Bioengineering Civil Engineering Computer Engineering Electrical Engineering
$\not \subset$ Environmental Engineering Mechanical Engineering
Engineering Sciences/ Applied Mechanics
English
\& Entrepreneurship
Environmental Sciences
European Studies
Exercise Physiology
Exercise Physiology and Nutritional Science (concurrent program) $+\phi$ Finance

+ Financial Services
08356 G
- 05043 U
$+\not \subset$ Financial and Tax Planning 05043 G
13061 U
11021 U \& G
22061 U \& G
19141 U \& G 11031 U
$\begin{array}{ll}\text { Gerontology } & 21043 \text { U \& G } \\ \text { Health Science } & 12011 \text { U } \\ \text { History } & 22051 \text { U \& G }\end{array}$
$\begin{array}{ll}\text { Gerontology } & 21043 \text { U \& G } \\ \text { Health Science } & 12011 \text { U } \\ \text { History } & 22051 \text { U \& G }\end{array}$
$\begin{array}{ll}\text { Gerontology } & 21043 \text { U \& G } \\ \text { Health Science } & 12011 \text { U } \\ \text { History } & 22051 \text { U \& G }\end{array}$
05081 U 15991 U

05151 G 07021 U \& G 49993 U \& G 05131 U \& G

22103 U 11081 U 06021 U

21045 G 08351 U \& G

12201 G 03081 U \& G
08291 G
20013 G
08011 G
08261 G
08271 G
08241 G
08992 G
08021 G
17012 G

08994 G
08301 G
08031 G
08081 G
09134 G
09021 U \& G
09051 G
09081 U \& G
09094 U
09091 U \& G
09221 U \& G 09101 U \& G

09012 G
15011 U \& G
05997 G
49011 U
03101 U
08355 G

5041 U \& G

Foods and Nutrition
French
Geography
Geological Sciences
German

Hospitality and Tourism Management
Humanities
$\phi$ Human Resource Management
$+\phi$ Information Systems
Interdisciplinary Studies
$\phi$ International Business International Security and Conflict Resolution

| Japanese | 11081 U |
| :---: | :---: |
| Journalism | 06021 U |
| Juris Doctor and Social Work (concurrent program) | 21045 G |
| Kinesiology | 08351 U \& G |
| Language and Communicative Disorders | 12201 G |
| Latin American Studies | 03081 U \& G |

[^10]| MAJOR M | MAJOR CODE |
| :---: | :---: |
| Latin American Studies and Business Administration concurrent program) | 49061 G |
| Liberal Arts and Sciences | 49017 G |
| Liberal Studies | 49015 U |
| Linguistics | 15051 U \& G |
| + $¢$ Management | 05061 U \& G |
| + $\varnothing$ Marketing | 05091 U \& G |
| Mathematics-B.A. degree | 17011 U \& G |
| Mathematics-B.S. degree | 17031 U |
| Mathematics and Science |  |
| Microbiology | 04111 U \& G |
| Modern Jewish Studies $\not \subset$ Molecular Biology | $\begin{aligned} & 15102 \mathrm{U} \\ & 04161 \mathrm{G} \end{aligned}$ |
| Music | 10052 U |
| \# Music-Performance | 10041 U \& G |
| Music | 10051 G |
| Nursing | 12031 U \& G |
| Nutritional Sciences | 13061 G |
| Nutritional Science and |  |
| Exercise Physiology | 08356 G |
| ¢ Operations Management | 05064 G |
| Philosophy | 15091 U \& G |
| Physical Science | 19011 U |
| Physics | 19021 U \& G |
| ¢ Physiology | 04101 G |
| Political Science | 22071 U \& G |
| Psychology | 20011 U \& G |
| Public Administration | 21021 U \& G |
| Public Health | 12141 G |
| ¢ Health Behavioral Science | 12143 G |
| Public Health and Social Work (concurrent program) | ) 12991 G |
| Radiological Health Physics | 12251 G |
| + $¢$ Real Estate | 05111 U \& G |
| Recreation Administration | 21031 U |
| Regulatory Affairs | 49045 G |
| Rehabilitation Counseling | 12221 G |
| Religious Studies | 15101 U |
| Rhetoric and Writing Studies | 15013 G |
| Russian | 11061 U |
| Russian and Central European Studies | 03071 U |
| Social Science | 22011 U |
| Social Work | 21041 U \& G |
| Social Work and Juris Doctor (concurrent program) | 21045 G |
| Social Work and Public Health (concurrent program) | h 12991 G |
| Sociology | 22081 U \& G |
| Spanish | 11051 U \& G |
| Speech, Language, and Hearing Sciences | 12201 U \& G |
| Statistics | 17021 U \& G |
| $\not \subset$ Systematics and Evolutionary Biology (Zoology) | 04071 G |
| ¢ Taxation | 05022 G |
| Television, Film and New Media Production | 06031 U \& G |
| Theatre Arts | 10071 U \& G |
| Theatre Arts - MFA | 10072 G |
| Undeclared | 00000 U |
| Urban Studies | 22141 U |
| Vocational Education | 08395 U |
| Women's Studies | 49991 U \& G |

MAJOR
MAJOR CODE

49061 G
OO15
15051 U \& G

+ $\varnothing$ Management 05061 U \& G
+ © Marketing 05091 U \& G
17011 U \& G
17031 U
08997 G
04111 U \& G
15102 U
4
10041 U \& G
10051 G
12031 U \& G

08356 G
05064 G
15091 U \& G
19021 U \& G
04101 G
22071 U \& G

21021 U \& G
12141 G

12991 G
12251 G
05111 U \& G
1031
12221 G
15101 U
15013 G

03071 U
22011 U
\&

解
12991 G
11051 U \& G

12201 U \& G
17021 U \& G
04071 G

06031 U \& G
10071 \&
00000 U
08395 U
49991 U \& G

NUMERICAL LISTING OF MAJOR CODES

MAJOR CODE
00000 U

03011 U \& G
03071 U
03081 U \& G
03101 U
04011 U \& G
04071 G
04101 G
04111 U \& G
04161 G
04201 G
05011 U \& G
05011 U
05021 G
05021 U
05022 G
05041 U \& G
05043 U
05043 G
05061 U \& G
05064 G
05081 U
05091 U \& G
05111 U \& G
05131 U \& G
05151 G
05992 U
05995 G

05997 G
06011 U \& G
06021 U
06031 U \& G
06033 U
06041 U
06991 U
07011 U \& G
07021 U \& G
07992 G
08011 G
08021 G
08031 G
08081 G
08231 U \& G
08241 G
08261 G
08271 G
08291 G
08301 G
08351 U \& G
08355 G
08356 G

08395 U
08992 G
08994 G

08997 G

City Planning
MAJOR
Undeclared

City Planning
Asian Studies
Russian and East European Studies
Latin American Studies
European Studies
Biology
ф Systematics Evolutionary Biology (Zoology)
\& Physiology
Microbiology
$申$ Molecular Biology
¢ Ecology
Business Administration

+ Agribusiness (IVC)
Accountancy
+ Accounting
\& Taxation
$+\varnothing$ Finance
+ Financial Services
\& Financial and Tax Planning
+ $\downarrow$ Management
$\not \subset$ Operations Management Hospitality and Tourism Management
$+申$ Marketing
$+\varnothing$ Real Estate
ф International Business
\& Human Resource Management
+ Public Relations
Business Administration and Juris Doctor (concurrent program)
\& Entrepreneurship
Communication
Journalism
Television, Film and New Media Production
+ Telecommunications and Film
+ Advertising
+ Multimedia
Computer Science
+ \& Information Systems
Computational Science
Education
\& Elementary Curriculum \& nstruction
$\not \subset$ Secondary Curriculum \& Instruction
$\not \subset$ Special Education Child Development
\& Educational Research Counseling
\& Educational Leadership Education (Ed.D.)
$\not \subset$ Reading Education Kinesiology
Exercise Physiology Nutritional Science and Exercise Physiology
Vocational Education
\& Educational Technology
$\not \subset$ Policy Studies in Language and Cross-Cultural Education
Mathematics and Science Education

MAJOR CODE
09012 G
09021 U \& G
09051 G
09081 U \& G
09091 U \& G 09094 U
09101 U \& G
09134 G
09221 U \& G
09994 G
10021 U \& G
10022 G
10031 U \& G
10041 U \& G
10051 G
10052 U
10071 U \& G
10072 G
10081 U
10082 U
10091 U
11021 U \& G
11031 U
11051 U \& G
11061 U
11081 U
12011 U
12031 U \& G
12141 G
12143 G
12201 U \& G
12201 G
12202 G
12221 G
12251 G
12991 G
13061 U
13061 G
15011 U \& G
15013 G
15031 U
15041 U 15051 U \& G
15061 U
15071 G
15091 U \& G
15101 U
15102 U
15991 U
17011 U \& G
17012 G
17021 U \& G
17031 G
17031 U
19011 U
19021 U \& G
19051 U \& G
19051 U
19081 U
19111 U \& G
19141 U \& G
20011 U \& G
20013 G
20031 G

MAJOR
Engineering Sciences/ Applied Mechanics
Aerospace Engineering
Bioengineering
Civil Engineering
Electrical Engineering
Computer Engineering
Mechanical Engineering
Engineering
\& Environmental Engineering Biomedical Quality Systems
Art
Art - MFA
$+\not \subset$ Art History
\# Music - Performance
Music
Music
Theatre Arts
Theatre Arts - MFA
Dance
Dance - BFA

+ Graphic Design
French
German
Spanish
Russian
Japanese
Health Science
Nursing
Public Health
$\notin$ Health Behavioral Science
Speech, Language, and Hearing Sciences
Language and Communicative Disorders


## Audiology

Rehabilitation Counseling
Radiological Health Physics
Social Work and Public Health (concurrent program)
oods and Nutrition
Nutritional Sciences
English
Rhetoric and Writing Studies
Comparative Literature
Classics
Linguistics
General Communication
Creative Writing
Philosophy
Religious Studies
Modern Jewish Studies
Humanities
Mathematics-B.A. degree
\& Mathematics Education K-8
Statistics
Applied Mathematics
Mathematics-B.S. degree
Physical Science
Physics
Chemistry
Biochemistry
Chemical Physics
Astronomy
Geological Sciences
Psychology
School Psychology (Ed.S.)
Clinical Psychology

| MAJOR CODE | MAJOR |
| :---: | :---: |
| 21021 U \& G | Public Administration |
| 21031 U | Recreation Administration |
| 21041 U \& G | Social Work |
| 21043 U \& G | Gerontology |
| 21045 G | Social Work and Juris Doctor (concurrent program) |
| 21051 U \& G | $\notin$ Criminal Justice Administration |
| 22011 U | Social Science |
| 22021 U \& G | Anthropology |
| 22041 U \& G | Economics |
| 22042 U | + International Economics |
| 22051 U \& G | History |
| 22061 U \& G | Geography |
| 22071 U \& G | Political Science |
| 22081 U \& G | Sociology |
| 22091 G | Criminal Justice and Criminology |
| 22103 U | International Security and Conflict Resolution |
| 22111 U | Afro-American Studies |
| 22131 U \& G | Chicana and Chicano Studies |
| 22141 U | Urban Studies |
| 49011 U | Environmental Sciences |
| 49015 U | Liberal Studies |
| 49017 G | Liberal Arts and Sciences |
| 49045 G | Regulatory Affairs |
| 49061 G | Business Administration and Latin American Studies (concurrent program) |
| 49991 U \& G | Women's Studies |
| 49993 U \& G | Interdisciplinary Studies |

## CODES FOR CREDENTIALS

## CREDENTIAL

| Single Subject Instruction | 00100 |
| :--- | :--- |
| Multiple Subject Instruction | 00200 |
| Reading/Language Arts Specialist | 00410 |
| B/CLAD Specialist | 00440 |
| Deaf and Hard of Hearing <br> Special Education: Early Childhood <br> Special Education | 00461 |
|  | 00435 |


| Special Education <br> Special Education: Mild/Moderate <br> Disabilities | 00435 |
| :---: | :---: |
| Sis | 00468 |

Special Education: Moderate/Severe 00469
Special Education: Physical and
Health Impairments
Administrative Services (Preliminary) 00501
Administrative Services (Professional
Clear) 00502
School Nurse Services 00600
Pupil Personnel Services
School Counseling
Child Welfare and Attendance or 00801
School Social Work 00803
School Psychology 00804
Clinical or Rehabilitative Services:
Language, Speech, and Hearing 00900
Language, Speech, Hearing, and
Audiology

Audiology
00903
Language, Speech, and Hearing including Special Class Authorization

00910
Language, Speech, and Hearing adding Special Class Authorization

## Course Abbreviations

| ACCTG. | Accountancy |
| :---: | :---: |
| ARP | Administration, Rehabilitation and Post Secondary Education |
| A E ... | Aerospace Engineering |
| A S .... | Aerospace Studies |
| AFRAS. | Africana Studies |
| AMIND | American Indian Studies |
| ANTH | Anthropology |
| ARAB ... | Arabic |
| ART | Art |
| ASIAN | Asian Studies |
| ASTR. | Astronomy |
| AUD | Audiology |
| BIOL | Biology |
| BQS. | Biomedical Quality Systems |
| B A | Business Administration |
| CHEM. | Chemistry |
| CCS. | Chicana and Chicano Studies |
| CFD. | Child and Family Development |
| CHIN. | Chinese |
| C P | City Planning |
| CIVE | Civil Engineering |
| CLASS. | Classics |
| COMM. | Communication |
| C LT... | Comparative Literature |
| COMP | Computational Science |
| COMPE | Computer Engineering |
| CS | Computer Science |
| CSP... | Counseling and School Psychology |
| CJA. | Criminal Justice Administration |
| DANCE. | Dance |
| ECON. | Economics |
| ED | Education |
| EDL | Educational Leadership |
| EDTEC | Educational Technology |
| E E. | Electrical Engineering |
| ENGR | Engineering |
| EM. | Engineering Mechanics |
| ENGL | English |
| ENV E | Environmental Engineering |
| ENV S | Environmental Science |
| EUROP. | European Studies |
| ENS. | Exercise and Nutritional Sciences |
| FILIP. | Filipino |
| FIN . | Finance |
| FRENC. | French |
| GMS.. | General Mathematics Studies |
| GEN S | General Studies |
| GEOG | Geography |
| GEOL | Geological Sciences |
| GERMN | German |
| GERO... | Gerontology |
| HHS... | Health and Human Services |
| HEBRW | Hebrew |
| HIST ..... | History |
| HTM ..... | Hospitality and Tourism Manageme |


|  |  |
| :---: | :---: |
| HUM .................. Humanities |  |
| INT S ................ Interdisciplinary Studies |  |
| I B .................... International Business |  |
| ISCOR............... International Security and Conflict Resolution |  |
| ITAL | Italian |
| JAPAN ............. Japanese |  |
| JS.................... Jewish Studies |  |
| JOUR ............... Journalism |  |
| LATAM ............. Latin American Studies |  |
| LIB S ................ Liberal Studies |  |
| LING ................ Linguistics |  |
| MGT. | Management |
| MKTG .............. Marketing |  |
| MALAS............. Master of Liberal Arts and Sciences |  |
| MATH ............... Mathematics |  |
| M S E ............... Mathematics and Science Education |  |
| MTHED ............. Mathematics Education |  |
| M E .................. Mechanical Engineering |  |
| MIL S ............... Military Science |  |
| BIO .................. Molecular Biology |  |
| MUSIC .............. Music |  |
| N SCI ............... Natural Science |  |
| NAV S................ Naval Science |  |
| NURS............... Nursing |  |
| NUTR ............... Nutrition |  |
| OCEAN ............. Oceanography |  |
| PERS................ Persian |  |
| PHIL................. Philosophy |  |
| PHYS ............... Physics |  |
| PLC................... Policy Studies in Language and Cross-Cultural |  |
| POL S ............... Political Science |  |
| PORT ............... Portuguese |  |
| PSFA ................ Professional Studies and Fine Arts |  |
| PSY .................. Psychology |  |
| P A ................... Public Administration |  |
| P H................... Public Health |  |
| REC ................. Recreation |  |
| R A.................. Regulatory Affairs |  |
| REL S............... Religious Studies |  |
| RWS .................. Rhetoric and Writing Studies |  |
| RUSSN.............. Russian |  |
| SOCSI.............. Social Science |  |
| SWORK............ Social Work |  |
| SOC ................. Sociology |  |
| SPAN ............... Spanish |  |
| SPED ............... Special Education |  |
| SLHS.................. Speech, Language, and Hearing |  |
| STAT................. Statistics |  |
| TE .................... Teacher Education |  |
| TFM.................. Television, Film and New Media |  |
| THEA ............... Theatre |  |
| WMNST | Women's Studies |

## Courses

 and
## Curricula

## Major Academic Plans (MAPs)

The MAPs Web site located at http://www.sdsu.edu/mymap was created to help first-time freshmen navigate the course requirements for their majors. The Major Academic Plans (MAPs) created for each major are not meant to encompass every major-specific requirement or a required sequencing of courses. Refer to this catalog for a complete description of requirements, including: course prerequisites, minimum grade requirements, unit limitations, and General Education approved courses and distribution requirements.

The MAPs will help you identify which General Education course will also fulfill a major preparation course requirement. They will also suggest sequencing to ensure that you complete prerequisites for an upper-division course prior to taking the higher-level course.

Questions about Graduation Requirements and General Education should be directed to the Academic Advising Center at 619-594-6668. You may also submit a general question through Academic Advice in the SDSU WebPortal. The Academic Advising Center is located in Student Services, Room 1551 (north of Aztec Center). Visit http://www.sdsu.edu/advising.

Questions related to requirements in your major should be directed to your major adviser.
Visit http://www.sdsu.edu/majoradvisers.

# Courses and Curricula 

## Absence from Class

Instructor Initiated Drop Policy

Students who do not attend the first class session and the beginning of the second class session of a course may be dropped from that course by the instructor within the first 12 class days of the semester. Students who do not meet prerequisite requirements can also be dropped within the first 12 class days of the semester. Any student dropped by the instructor during this period will be notified of the action by e-mail. It is the student's responsibility to keep a current email address on file through the SDSU WebPortal at http:// www.sdsu.edu/portal. To reenroll, the student must receive an add code from the instructor and reenroll in the course within the first 15 class days of the semester by 6:00 p.m.

NOT ALL INSTRUCTORS WILL DROP STUDENTS WHO MISS THE FIRST CLASS SESSION AND THE BEGINNING OF THE SECOND CLASS SESSION. Students are responsible for all courses on their schedules. Students should check their online schedules regularly and take necessary action to add or drop during the first 15 class days of the semester by 6:00 p.m.

## Religious Observances

By the end of the second week of classes, students should notify the instructors of affected courses of planned absences for religious observances. Instructors shall reasonably accommodate students who notify them in advance of planned absences for religious observances.

## Schedule Adjustment Policy

All schedule adjustments (formerly called Change of Program) MUST BE COMPLETED BY THE END OF THE 15th CLASS DAY OF THE SEMESTER BY 6:00 P.M. The schedule adjustment period allows you to add a course, drop a course, withdraw from the university, and change grading basis. Students will no longer be allowed to make ANY schedule changes (excluding total withdrawal from the university for extremely serious, documented cases involving health or accident) after the 15 th class day of the semester by 6:00 p.m.

## Major Academic Plans (MAPs)

The MAPs Web site located at http://www.sdsu.edu/mymap was created to help first-time freshmen navigate the course requirements for their majors. The Major Academic Plans (MAPs) created for each major are not meant to encompass every major-specific requirement. Refer to this catalog for a complete description of requirements, including: course prerequisites, minimum grade requirements, unit limitations, and General Education approved courses and distribution requirements.

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Visit http://www.sdsu.edu/advising.
Questions related to requirements in your major should be directed to your major adviser.

Visit http://www.sdsu.edu/majoradvisers.

## 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, except 997, are reserved for graduate courses in certain professional curricula as part of advanced certificate, credential, and licensure programs and are specifically intended for students admitted to the university with postbaccalaureate classified standing. Undergraduate students may enroll in these courses only if they are officially admitted to a blended or integrated program where undergraduate and credential coursework is included in the same program. Courses numbered at the 900 level are not applicable to other graduate programs.

Courses numbered 397 offered in regular sessions are professional advancement/training or tutorial/discussion classes that may accompany other credit courses and are not acceptable towards an undergraduate or graduate degree.

Courses numbered X-01 through X-79 and X-397 are Extension professional development units offered only through Extension to meet specific academic needs of community groups and are not acceptable toward an undergraduate or graduate degree.

## 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 satisfy course prerequisites (or their equivalent) prior to beginning the course to which they are prerequisite. Faculty have the authority to enforce prerequisites listed in the current catalog and current class schedule, to evaluate equivalent preparation, and to require proof that such prerequisites/preparation have been completed. Students who do not meet prerequisite requirements can be dropped within the first 12 days of the semester.

## 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 term.

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 Board of Trustees of the California State University may not be offered or may be postponed.

## General Education and American Institution Courses

Notations in brackets at the end of course titles in the course listings identify courses which satisfy General Education [GE] and American Institutions [AI] requirements. See Graduation Requirements for the Bachelor's Degree section for full explanation and time line.

## Common Courses

## Experimental or Selected Studies or Topics or Workshop Courses (96, 296, 496, 596)

Courses offered by departments under the numbers 296, 496, 596 are subject to the following conditions: no more than nine units of such courses shall be applicable toward a bachelor's degree; such courses may be applicable toward the minor or toward preparation for the major only with the approval of the department chair.

Topics courses may be offered by the departments under the number 96. These courses are nonbaccalaureate level and are not acceptable for a bachelor's degree or General Education.

## Special Study (299, 499, 599)

These courses provide opportunity for individual study of a subject not offered in the regular curriculum. The student does this outside of the classroom and must secure the consent of an instructor to supervise the study before registering for the course. The student should discuss the topic with the instructor and come to an understanding on the amount of time to be devoted to the topic, the credit to be earned, and the mode of investigation and report to be used. As with regular courses, the expectation is that the student will devote three hours per week to the subject for each unit of credit. A maximum combined credit of nine units of 299, 499, and 599 is applicable to a bachelor's degree. Maximum credit of six units of 499 in one department applicable to a bachelor's degree.

A 499 or 599 number cannot be used to offer lower division coursework. Also, 299, 499, and 599 cannot be used to extend internships, to award academic credit in place of pay, for work experience, or for class-sized groups.

## Credit/No Credit Courses

Courses which are offered for credit/no credit are indicated by the symbols $\mathrm{Cr} / \mathrm{NC}$ in the course title.


# Accountancy 

In the College of Business Administration

A member of AACSB International-The Association to Advance Collegiate Schools of Business.

## Faculty

Emeritus: Barnett, Brodshatzer, Butler, Chow, Ferrel, Garrett, Houston, Lightner, K., Meier, Meigs, Samuelson, Snudden, Toole, Whittington, Williamson
Director: Lightner, S.
Professors: Anderson, Bailey, Capettini, Grudnitski, Oestreich, Venable, Whittenburg
Associate Professors: Doran, Gore, Joh, Krivogorsky, Lightner, S. Lecturer: Snyder

## Offered by the School

Master of Business Administration.
Master of Science degree in accountancy.
Major in accounting with the B.S. degree in business administration.
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, widely recognized throughout the country for the breadth of his research and his technical thoroughness, has been the holder of the Chair since its creation in 1984.

## The Major

The major in accounting provides basic concepts of accounting and business knowledge to students seeking professional careers in the field. Growing with the increased complexity of the business world, accounting continues to offer a wide choice of careers and opportunities.

The School of Accountancy offers two programs at the undergraduate level: The Business Accounting Program and the Professional Accountancy Program.

The Business Accounting Program offers courses to prepare students for a variety of entry-level financial or general business positions, or for graduate work in accounting, business, or law. This track leads to a B.S. in Business Administration, Accounting.

The Professional Accountancy Program is for students who plan to pursue professional accounting careers in public accounting firms, corporations, and not-for-profit and governmental organizations. Completion of this program (150 units) results in the awarding of the B.S. in Business Administration (Accounting) and the M.S. in Accountancy when the requirements for each degree have been completed. Application for this program may be made during the semester in which the student completes 95 units and has completed (or is completing) Accountancy 322. In addition to the completed application, admission will be based upon the attainment of above-average grades in all upper division accountancy classes and a strong SDSU overall GPA and GMAT score.

OFFICE: Student Services 2411
TELEPHONE: 619-594-5310
FAX: 619-594-3675
E-MAIL: sharon.lightner@sdsu.edu

## Business Honors Program

The Business Honors Program offers excellent upper division business students the opportunity to explore issues in our local, regional, and global business environments focusing on the social and ethical responsibility that business has to the community and society. Honors students will enroll in a one unit business honors seminar each semester. During their enrollment they will participate in activities to promote their academic and personal growth, documenting their work in a written portfolio.

Generally, students should apply to this program at the time of application to upper division business. Applicants must submit an essay with their application. Applicants must have a 3.6 cumulative GPA or good standing in the University Honors Program. Students not meeting these requirements may petition for admission to the program. Successful completion of the Business Honors Program will be recognized at graduation. Contact Dr. Carol Venable, School of Accountancy, for more information about this program.

## Statement on Computers

Before enrolling in upper division courses in the College of Business Administration, students must be competent in the operation of personal computers, including word processing and spreadsheets. Business students are strongly encouraged to have their own computers capable of running word processing, spreadsheet, presentation, e-mail, and Internet applications such as those found in packages sold by major software publishers. Availability of on-campus computing resources can be limited due to increasing demand across the university.

## Retention Policy

The College of Business Administration expects that upper division students will make reasonable academic progress towards the degree. Students earning less than a 2.0 average in their classes for two or more semesters may be removed from the upper division major and required to declare a non-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 AACSB International-The Association to Advance Collegiate Schools of Business accredited program. Exceptions require thorough documentation evidencing the above standards.

## Impacted Program

The accounting major is impacted. Before enrolling in any upper division courses in business administration, students must advance to an upper division business major and obtain a business major code. To be admitted to an upper division business major (accounting,
finance, financial services, real estate, information systems, management, or marketing), students must meet the following criteria:
a. Complete with a grade of C or higher: Accountancy 201 and 202; Finance 240; Information and Decision Systems 180 and 290 (290 is not required for the accounting major); Economics 101 and 102; Mathematics 120 (or other approved calculus course); and either Statistics 119 or Economics 201. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 60 transferable semester units;
c. Have a cumulative GPA of 2.9;

Students who meet all requirements except the GPA may request to be placed on the waiting list. While all spaces are usually filled by eligible students, if there is room in the program after all the fully-qualified students have been accommodated, students will be admitted from the waiting list in GPA order. Contact the Business Advising Center (BA-448), 619-594-5828, for more information.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Accounting Major

## With the B.S. Degree in Business Administration <br> (Major Code: 05021)

A minor is not required with this major.
Preparation for the Major. Complete with a grade of C or higher: Accountancy 201, 202; Economics 101, 102; Statistics 119 or Economics 201; Mathematics 120 (or other approved calculus course); Finance 240; Information and Decision Systems 180. (24 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$; the minimum grade in each class is C. Additional progress requirements must be met before a student is admitted to an upper division major.

Graduation Writing Assessment Requirement. Students must have fulfilled the Writing Proficiency Assessment with a score of 8 or above before taking Information and Decision Systems 390W and earn a grade of $C$ (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Business Accounting Program Major. Fifty upper division units consisting of Accountancy 321, 322, 421, 422, and three units of upper division accountancy electives (not including Accountancy 325 or 326); Business Administration 300; Finance 323; Information and Decision Systems 301, 302, and 390W with a grade of C (2.0) or better; Management 350; Business Administration 404 or Management 405; Marketing 370; Economics 320 or 321 or Finance 321. A "C" (2.0) average is required in the courses stipulated here for the major. A minimum of 60 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration, economics, and statistics.

Professional Accountancy Program Major. Students must successfully complete 150 units to be awarded first the B.S. degree in Business Administration, Accounting, and then the M.S. degree in Accountancy. Students MUST file for graduation and complete the B.S. degree in Business Administration BEFORE continuing on to the M.S. degree in Accountancy. Students must apply and be admitted to the M.S. Accountancy program (including completion of the Graduate Management Admissions Test) as listed in the Graduate Bulletin. No more than 30 units may be in courses numbered 600 and above. Students must achieve a "C" (2.0) average in the following courses: Accountancy 321, 322, 421, 422, and three units of upper division accountancy electives; Business Administration 300; Finance 323; Information and Decision Systems 301, 302, 390W; Management 350;

Business Administration 404 or Management 405; Marketing 370; Economics 320 or 321 or Finance 321. Students must achieve at least a "B" (3.0) average in the classes specified on their official program for the master's degree.

Suggested Course of Study for the Professional Accountancy Program: Students should have completed 61 units, including all Iower division General Education and Preparation for the Major, before beginning their upper division work.

| JUNIOR YEAR (Fall Semester) |  |
| :---: | :---: |
|  | Units |
| Accountancy 321 | 6 |
| Business Administration 300 | 1 |
| Information and Decision Systems 301 | 3 |
| Management 350. | 3 |
| General Education Explorations | 3 |
|  | 16 |
| (Spring Semester) |  |
| (Students should take the GMAT early in this semester) (Apply for Professional Accountancy Program - PAP) |  |
| Accountancy 322..................................................... 6 |  |
| Economics 320 or 321 or Finance 321 ........................ 3 |  |
| Information and Decision Systems 390W ..................... 4 |  |
| Finance 323 |  |
|  | 16 |

## SENIOR YEAR (Fall Semester)

Accountancy 421............................................................ 6
Information and Decision Systems 302 ........................... 3
General Education Explorations ..................................... 3
Marketing 370 ................................................................ 3 15
(Spring Semester)
Accountancy 422........................................................... 3
Management 405 or
Business Administration 404 ...................................... 3
Upper division accountancy elective ............................... 3
General Education Explorations ..................................... 3 12
(Students MUST file for graduation and complete the B.S. degree in Business Administration BEFORE continuing on to the M.S. degree in Accountancy.)

## FIFTH YEAR (Fall Semester)

500-level accountancy elective ....................................... 3
Graduate accountancy elective....................................... 3
Graduate accountancy elective....................................... 3
Graduate accountancy elective....................................... 3
Graduate non-accountancy elective .............................. 3 15

## (Spring Semester)

Graduate accountancy elective....................................... 3
Graduate accountancy elective....................................... 3
Graduate non-accountancy elective .............................. 3
Graduate non-accountancy elective .............................. 3
Accountancy 790......................................................... 3
15

## 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.

* Information and Decision Systems 390W prerequisite waived for students in this program.
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 in residence at San Diego State University. Students with a major in the College of Business Administration, Hospitality and Tourism Management, or International Business may not complete a minor in the College of Business Administration.

Students must officially declare the minor before taking any upper division business courses. Students must meet the prerequisites for the minor in effect at the time that they declare the minor. The current prerequisites for admission to the accounting minor include completion of the following courses with a grade of C or better: Economics 101, 102, and a three unit course in statistics (Statistics 119 is recommended); completion of the General Education requirements in Communication and Critical Thinking; completion of an additional nine units in the department of the student's major, including at least six units of upper division courses. Students must also meet the GPA requirement in effect at the time that they declare the minor. Contact the Business Advising Center (BA-448) for admissions criteria and procedures.

## 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*, 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.

* General Education prerequisite waived for students in this program.


## Courses (ACCTG)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## ACCTG 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. (Formerly numbered Accountancy 230.)

## ACCTG 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. (Formerly numbered Accountancy 220.)

## ACCTG 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)
## ACCTG 321. Integrative Accounting Topics I (6)

Prerequisites: Admission to Accountancy major, minor, or certificate. Minimum grade of $C$ in both Accountancy 201 and 202. Completion of General Education requirement in Communication and Critical Thinking. Proof of completion of prerequisites required: Copy of transcript.

Information and accounting systems to satisfy decision making requirements of managers and external users. Introduction to taxation and tax considerations in selecting the form of organization. Includes topics typically contained in Intermediate Accounting I, Managerial and Cost Accounting, Accounting Information Systems, and Federal Income Tax courses. Not open to students with credit in Accountancy 325 and 326. Maximum credit six units for any combination of Accountancy 318, 319, 321.

## ACCTG 322. Integrative Accounting Topics II (6)

Prerequisites: Minimum grade of $C$ in Accountancy 321. Credit or concurrent registration in Information and Decision Systems 390W. Proof of completion of prerequisites required: Copy of transcript.

Financial and tax research methods, taxation topics, accounting information systems, financial reporting issues, preparation and use of financial statement information, and accounting issues of not-for-profit organizations. Includes material typically contained in Accounting Information Systems, Accounting for Not-for-Profit Organizations, Federal Income Tax, and Intermediate Accounting II.

## ACCTG 325. Intermediate Managerial and Tax Accounting (3)

Prerequisites: Accountancy 202. Approved upper division business major or minor or other approved major. Not open to accounting majors.

Theories, practices, and concepts needed to satisfy decision making requirements of internal users; tax considerations to managerial decision making. May not be taken for credit by accounting majors.

## ACCTG 326. Intermediate Financial Accounting (3)

Prerequisite: Accountancy 202. Approved upper division business major or minor or other approved major. Not open to accounting majors.

Theories, practices, and concepts needed to satisfy the decision making requirements of external users; financial reporting for enterprises engaged in international trade of business. May not be taken for credit by accounting majors.

## ACCTG 409. Field Study in Taxation (1) $\mathrm{Cr} / \mathrm{NC}$ II

Prerequisite: Accountancy 321.
Income tax preparation in the field. Follows procedures of IRS VITA Program. IRS instruction followed by faculty supervised fieldwork. (Student must be available for special IRS tax school.)

## ACCTG 421. Integrative Accounting Topics III (6)

Prerequisites: Information and Decision Systems 390W; Finance 323; minimum grade of $C$ in Accountancy 322. Proof of completion of prerequisites required: Copy of transcript.

Audit of financial statements, consolidated financial reporting issues, and advanced financial accounting topics. Includes material typically contained in Auditing and Advanced Accounting.

## ACCTG 422. Integrative Accounting Topics IV (3)

Prerequisites: Information and Decision Systems 301, 390W; minimum grade of C in Accountancy 322. Credit or concurrent registration in Accountancy 421. Proof of completion of prerequisites required: Copy of transcript.

Accounting information for managerial performance evaluation, advanced financial reporting issues, and international accounting. Include material typically contained in International Accounting, Advanced Accounting, and Management Control Systems.

## ACCTG 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.
ACCTG 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.

## ACCTG 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)
ACCTG 501. Advanced Financial Accounting (3) I, II
Prerequisites: Minimum grade of $C$ in Accountancy 322; credit or concurrent registration in Accountancy 421. Proof of completion of prerequisites required: Copy of transcript.

Advanced financial accounting topics. Partnerships, consolidations, foreign currency transactions and financial statements, accounting for derivatives and hedging, accounting for bankruptcy and reorganizations.

## ACCTG 502. Advanced Managerial Accounting (3)

Prerequisite: Minimum grade of C in Accountancy 322; credit or concurrent registration in Accountancy 421. Proof of completion of prerequisite required: Copy of transcript.

Use of accounting information systems for managerial decision making. Introduction to decision-making situations which use accounting information for full or partial resolution. Consideration of uncertainty, decision theory and specific decision contexts.

## ACCTG 503. Federal Taxation of Individuals (3) I, II, S

Prerequisites: Accountancy 201 and 202. Approved upper division business major, business minor, or other approved major. Proof of completion of prerequisites required: Copy of transcript.

Taxation of individuals, including income, deductions, credits, social security taxes, and property transactions.

ACCTG 508. Accounting for Not-For-Profit Organizations (3)
Prerequisite: Minimum grade of $C$ in Accountancy 322. Proof of completion of prerequisite required: Copy of transcript.

Principles of fund accounting useful in state and local governmental units, hospitals, colleges, and universities. Comparisons with commercial accounting emphasized. Includes study of budgetary accounting, appropriations, encumbrances, internal checks and auditing procedures.

## ACCTG 596. Contemporary Topics in Accounting (1-3)

Prerequisites: Business major approved by the College of Business Administration and consent of instructor.

Contemporary topics in modern accounting. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.

# Administration, Rehabilitation and Postsecondary Education 

In the College of Education

OFFICE: 3590 Camino del Rio North, San Diego, CA 92108-1716<br>TELEPHONE: 619-594-6115<br>http://interwork.sdsu.edu/arpe/

Accredited by the Council on Rehabilitation Education.

## Faculty

Emeritus: Atkins, Jacobs, Morey, Piland, Stevens
Chair: McFarlane
Professors: McFarlane, Sax
Associate Professors: Hampton, Olney
Assistant Professor: Degeneffe
Lecturers: Nicodemus, Schroeder, Siegfried
Adjunct: Adametz, Barnes, Cook, Kitchen, Turner, VanSickle

## Offered by the Department

Master of Arts degree in education.
Concentration in educational leadership with a specialization in postsecondary education.
Concentration in educational leadership with a specialization in student affairs in postsecondary education.
Master of Science degree in rehabilitation counseling.
Bachelor of Vocational Education degree.
Certificate in community college teaching (refer to the Graduate Bulletin).
Certificate in rehabilitation administration (refer to the Graduate Bulletin).
Supported employment and transition specialist certificate (refer to the Graduate Bulletin).
Certificate in workforce education and lifelong learning (refer to the Graduate Bulletin).
Certificate in rehabilitation technology (refer to Engineering section in the Graduate Bulletin).

## Bachelor of Vocational Education

## (Major Code: 08395)

The Bachelor of Vocational Education (BVE) is a preparation and training program for persons counseling, training, or teaching youth and/or adults in academic and vocational subjects. This includes adult education teachers at the high school level, private career schools, ROP instructors, community college instructors, technical trainers in fire and law enforcement, occupational safety and health professions instructors, vocational rehabilitation and employment development (EDD) specialists, military instructors, and human resources personnel in the private sector.

The degree program is unique because it only accepts adult transfer students with substantial occupational experience in their designated teaching subject area and prior teaching or training experience. Qualifying students are granted upper division academic credit based on a comprehensive evaluation of their occupational and teaching experience, and professional growth.

## Admission to the Major

To qualify for admission, applicants must meet CSU lower division general education requirements, or the adult students transfer option, defined by Title 5 of the California Code of Regulations. The adult option requires possession of a high school diploma or the equivalent, no more than one term of full-time college enrollment in the past five years, earned grade point average of C or better in all college work attempted in the past five years, and completion of the lower division General Education sequence in writing and mathematics with grades of C or better. All BVE applicants must apply for admission to SDSU during the official admission filing period.

In addition, the following departmental criteria must be met for admission purposes:

## BVE Supplemental Admissions Requirements

1. Seven or more years of full-time occupational experience that provides a foundation for teaching in a designated subject area;
2. Prior teaching or training experience, including 1,620 clock hours in a full-time position or 1,000 clock hours in a part-time capacity;
3. Completion of an ARPE admissions application that specifies academic preparation for the degree program, and educational and career goals;
4. Completion of a personal interview by an ARPE faculty member.

Completion of the Major. Completion of the major in vocational education requires the following academic pattern. At least 30 semester units must be taken in residency at SDSU. Current university policy allows applicants to transfer up to 24 residency units taken through SDSU's Open University. However, once admitted, Open University coursework is not permitted.

1. Completion of all lower division general education coursework currently required by SDSU, with a minimum of 60 units. For transfer students this entails either GE certification or completion of the Intersegmental General Education Transfer Curriculum (IGETC) from a California Community College. $\qquad$ 70 units maximum
2. Completion of 21 units from the following professional teacher education courses: ARP 380, 381, 382, 496, 499 (2 courses), 565, 568, 596.

21 units
3. Evaluation of occupational experience, prior teaching, and professional growth by the State Board of Examiners of Vocational Teachers under the Swan Bill legislation (Education Code Section 89223) resulting in the award of upper division academic credit, up to 40 units. Student applications are provided by and coordinated through the department twice each year (September and March). The application requires a fee. $\qquad$ 40 units maximum
4. Completion of current SDSU upper division general education requirements.
5. Completion of upper division writing competency (Writing Proficiency Assessment).

Total
............... 120 units

## Courses (ARP)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## ARP 201. Introductory Statistics and Research Design for

 Education (3) [GE]Prerequisites: Intermediate algebra, satisfaction of the Entry-Level Mathematics requirement, and consent of instructor.

Understanding, interpreting, and applying educational research. Basic research design, sampling, distributions, reliability, validity, descriptive statistics, inferential statistics, hypothesis testing, tests of significance, and evaluating an education research report. Priority given to students in the Bachelor of Vocational Education program. 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: Administration, Rehabilitation and Postsecondary Education 201; Biology 215; Civil Engineering 160; Economics 201; Political Science 201; Psychology 270; Sociology 201; Statistics 119, 250

## ARP 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 <br> (Intended for Undergraduates)

ARP 380. Principles of Adult and Vocational Education (3) I, II, S
Principles, practices, scope, and functions of adult and vocational education.
ARP 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.
ARP 382. Directed Teaching (2-4) Cr/NC I, II, S
Prerequisite: Administration, Rehabilitation and Postsecondary Education 380, 381, or 565.

Systematic observation, participation, and teaching under supervision in an occupational subject matter area. Application to take this course must be made in preceding semester.

## ARP 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.

## ARP 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)

## ARP 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

## ARP 568. Adult and Vocational Education in Contemporary Society (3)

Prerequisite: Administration, Rehabilitation and Postsecondary Education 565.

Contemporary adult and vocational education in the U.S. Learning opportunities and environments, instructional delivery systems, and adult learning models.

## ARP 596. Topics in Administration, Rehabilitation and Postsecondary Education (1-3)

Selected topics 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.

## GRADUATE COURSES

Refer to the Graduate Bulletin.

# Aerospace Engineering and Engineering Mechanics 

In the College of Engineering

OFFICE: Engineering 308
TELEPHONE: 619-594-6074
E-MAIL: ae@engineering.sdsu.edu

The undergraduate degree in Aerospace Engineering is accredited by the American Board for Engineering and Technology.

## Faculty

Emeritus: Conly, Dharmarajan, Faulkner, Pierucci, Shutts, Wang
Chair: Katz
Professors: Katz, Narang, Nosseir, Plotkin
Assistant Professor: Venkataraman

## Offered by the Department

Doctor of Philosophy degree in engineering sciences/applied mechanics.
Master of Engineering in manufacturing and design.
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 American Board for Engineering and Technology, 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. No more than twelve units may be used for General Education credit from any one department or academic unit. No more than 7 units from one department can be used in Sections II and IV combined (Foundations and Explorations), nor more than 10 units from one department in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).
I. Communication and Critical Thinking: 9 units

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

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)
II. Foundations: 29 units
A. Natural Sciences and Quantitative Reasoning (17 units):
4. Physical Sciences (11 units)

Engineering students will take Chemistry 202 (4 units).
Physics 195 (3 units)
Physics 195L (1 unit)
Physics 196 (3 units)
2. Life Sciences (3 units)
3. Laboratory (satisfied under A.1. above)
4. Mathematics/Quantitative Reasoning

Engineering students will take Mathematics 150, 3 units applicable to General Education. You may not use Credit/No Credit grades.

## B. Social and Behavioral Sciences (3 units) <br> 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: Courses in this area must not be taken sooner than the semester in which you achieve upper division standing ( 60 units passed). Upper division courses in the major department may not be used to satisfy General Education. Total 9 units; must include one course of cultural diversity.
A. Upper division Humanities (3 units)

Three units must be taken from the same department as one of the Humanities courses selected in Foundations.
B. Upper division Humanities ( 3 units from a department not selected in A above.)
C. Upper division Social and Behavioral Sciences (3 units)

## The Major

The educational objectives of the aerospace engineering program are (1) To provide students with a comprehensive education in aerospace engineering with coverage of all major sub-disciplines. All students will receive an appropriate background in mathematics, science, and engineering fundamentals, and further studies in aerodynamics, structures, flight mechanics, stability and control, propulsion and aerospace design. (2) To provide students with preparation for careers in aerospace engineering or related fields by emphasizing analysis and problem solving skills and fostering the following attributes: individual initiative, ability to work in teams, good communication skills, and ethical professional behavior. (3) To cultivate in students an appreciation for lifelong learning including graduate study and career paths in research and development.

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, 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

The following is a recommended sequence of courses for the major in aerospace engineering. See General Education in this section for specific GE requirements.

## AEROSPACE ENGINEERING MAJOR FRESHMAN YEAR

| Fall Semester | Units | Spring Semester | Units |
| :---: | :---: | :---: | :---: |
| GE Composition. | 3 | GE Intermediate Composi | 3 |
| GE Math / Math 150, Calculus I. | 4 | GE Oral Communication | 3 |
| GE Social Science. | 3 | GE Humanities | 3 |
| Chemistry 202, General Chemistry .............. | 4 | Physics 195, Principles of | 3 |
| M E 101, Solid Modeling I | 2 | Physics 195L, Principles of | 1 |
| A E 123, The Aerospace Engi | 1 | Mathematics 151, Calculu | 4 |
|  | 17 |  | 17 |
| SOPHOMORE YEAR |  |  |  |
| Fall Semester | Units | Spring Semester | Units |
| GE Life Science. | 3 | Take the Writing Proficiency Asses |  |
| GE Humanities | 3 | Physics 197, Principles of | 3 |
| Mathematics 252, Calculus III. | 4 | E E 204, Principles of Elec | 3 |
| EM 200, Statics | 3 | E M 220, Dynamics | 3 |
| Physics 196, Principles of Physics | 3 | ENGR 280, Methods of An | 3 |
| M E 203, Computer Prog. \& Appl. | 2 | M E 240, Intro. to Engineer GE Humanities | 3 <br> 3 |
|  | 18 |  | 18 |
|  |  | YEAR * |  |
| Fall Semester | Units | Spring Semester | Units |
| M E 352, Thermodynamics and Heat Transfer | 3 | ENGR 510, Methods of An | 3 |
| A E 301, Low Speed Aerodynamics ............. | 3 | A E 302, High Speed Aero | 3 |
| CIV E 301, Intro. to Solid Mechanics ............. | 3 | A E 303, Experimental Aer | 2 |
| CIV E 302, Solid Mechanics Lab. ................. | 1 | A E 310, Aerospace Struc. | 3 |
| E M 340, Fluid Mechanics | 3 | A E 320, Aerospace Flight | 3 |
| E M 341, Fluid Mechanics Lab. | 1 | American Institutions. | 3 |
| American Institutions.......... | 3 |  |  |
|  | 17 |  | 17 |

## SENIOR YEAR

Fall Semester-All Specializations

|  | Units |
| :---: | :---: | :---: |
| A E 403, Aerosp. Engr. Senior Project ............ | 3 |
| A E 410, Aerospace Struc. Dynamics .......... | 3 |
| A E 430, Aircraft Propulsion Systems ........... | 3 |
| A E 440, Aircraft Stab. and Control I ............ | 3 |
| A E 460A, Aerosp. Engr. Applications ........... | 3 |
| GE Explorations ................................................ | 3 |

## Spring Semester-According to Specialization



[^11]
## 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.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(\mathrm{W})$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Master Plan. A master plan of elective courses and area of specialization must be approved by the undergraduate adviser and filed with the Office of Advising and Evaluations during the first semester of the junior year.

NOTE: See previous page for recommended sequence of courses for the major in aerospace engineering.

## Courses

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSE IN AEROSPACE ENGINEERING <br> (A E)

A E 123. The Aerospace Engineer (1)
Introduction to professional aerospace engineering. Emphasis on aeronautics and astronautics.

## UPPER DIVISION COURSES IN AEROSPACE ENGINEERING (Intended for Undergraduates)

## A E 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.

## A E 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.

## A E 303. Experimental Aerodynamics (2)

One lecture and three hours of laboratory.
Prerequisites: Engineering Mechanics 341 and credit or concurrent registration in Aerospace Engineering 301.

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.

## A E 310. Aerospace Structural Analysis (3)

Prerequisite: Civil Engineering 301.
Methods of static structural analysis of problems encountered in flight of aerospace vehicles.

## A E 320. Aerospace Flight Mechanics (3)

Prerequisites: Engineering Mechanics 220 and Engineering 280.
Two-body orbital mechanics including geocentric orbits and interplanetary transfers.

## A E 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.

## A E 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.

## A E 430. Aircraft Propulsion Systems (3)

Prerequisite: Aerospace Engineering 302 or Mechanical Engineering 351.

Theory and performance characteristics of aircraft propulsion systems including reciprocating engines, turbojets, ramjets, etc.

## A E 440. Aircraft Stability and Control I <br> (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.

## A E 460A. Aerospace Engineering Applications <br> (3) I

One lecture and five hours of design activity.
Prerequisites: Aerospace Engineering 302, 303 and 310.
Student projects in aerospace design.
A E 460B. Aerospace Engineering Applications (2) II
Six hours of laboratory.
Prerequisite: Aerospace Engineering 460A.
Student projects in aerospace design.
A E 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.

## A E 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)
A E 520. Intermediate Aerospace Flight Mechanics (3)
Prerequisite: Aerospace Engineering 320.
Rigid-body dynamics with applications in spacecraft attitude dynamics.

## A E 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.

## A E 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.

## A E 550. Viscous Flow (3)

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.

## A E 596. Advanced Aerospace Engineering Topics <br> (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 <br> (E M)

E M 200. Statics (3) I, II
Prerequisites: Physics 195 and credit or concurrent registration in Mathematics 151. Proof of completion of prerequisites required: Copy of transcript or enrollment confirmation.

Force systems, equilibrium, structures, distributed forces, friction, virtual work, moments of inertia, vector algebra.
E M 202. Mechanics for 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 and environmental engineering majors. Not open to students with credit in Engineering Mechanics 200 or 220.
E M 220. Dynamics (3) I, II
Prerequisite: Engineering Mechanics 200 with a grade of C or better. Proof of completion of prerequisite required: Copy of transcript.

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.

## E M 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 <br> (Intended for Undergraduates)

E M 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.

## E M 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.

E M 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.
E M 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)
E M 510. Finite Element Methods in Aerospace Structures (3)
Prerequisite: Aerospace Engineering 410.
Static and dynamic analysis of aerospace structures utilizing finite element methods.

## E M 530. Composite Structural Analysis (3)

Prerequisites: Engineering 280 and Civil Engineering 301.
Strength of composite materials; lamination theory; strength analysis of laminates; bending, buckling, and vibration of composite plates.

## E M 585. Fundamentals of Micro-Electro-Mechanical Systems

 (MEMS) (3)One lecture and four hours of laboratory.
Prerequisites for aerospace engineering majors: E E 204, E M 220, and M E 240.

Prerequisites for electrical engineering majors: E E 330, E M 202, and M E 240.

Prerequisites for mechanical engineering majors: E E 303, E M 220, and M E 240.

Microfabrication techniques, microsensors and microactuators, and scaling laws. A design project of a micro-device including schematic creation, test of performance, layout generation, and layout versus schematic comparison.

## E M 596. Advanced Engineering Mechanics Topics <br> (1-3)

Prerequisite: Consent of instructor.
Modern developments in engineering mechanics. See Class Schedule for specific content. Maximum credit of six units for any combination of Engineering Mechanics 496, 499, and 596 applicable to a bachelor's degree. Maximum combined credit of six units of Engineering Mechanics 596 and 696 applicable to a 30-unit master's degree.

## GRADUATE COURSES IN AEROSPACE ENGINEERING AND ENGINEERING MECHANICS Refer to the Graduate Bulletin.

# Aerospace Studies 

## In the College of Professional Studies and Fine Arts

## OFFICE: Exercise and Nutritional Sciences 385 <br> TELEPHONE: 619-594-5545

## Faculty

Chair: Fleck
Professor: Fleck
Assistant Professors: Bowen, McKinley, Pinto

## Offered by the Department

AFROTC curriculum.
Minor in aerospace studies.

## AFROTC Curriculum

The department offers a three- or four-year Air Force Reserve Officers Training Corps program designed to develop officers who have broad understanding and high growth potential. For qualified students, two, three, or 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 allowance of \$250-\$400 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. 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 each 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 for which students must apply during the sophomore year. The application process involves taking the Air Force Officer Qualification Test (AFOQT), a physical examination, a physical fitness test, 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 15 units in aerospace studies, 12 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 in residence at San Diego State University.

## Courses (A s)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## A S 91A-91B. Leadership Laboratory (1-1) Cr/NC

One hour and fifty 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. Credit earned in this course is not applicable to a bachelor's degree.

## A S 92A-92B. Leadership Laboratory (1-1) Cr/NC

One hour and fifty 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. Credit earned in this course is not applicable to a bachelor's degree.

## A S 93A-93B. Leadership Laboratory (1-1) Cr/NC

One hour and fifty 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 is not applicable to a bachelor's degree.

## A S 94A-94B. Leadership Laboratory (1-1) Cr/NC

One hour and fifty 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 is not applicable to a bachelor's degree.

## A S 100A-100B. Foundations of the United States Air Force (1-1)

 Meets one hour 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.

Introduction to organizational structure, mission of selected military organizations, selected topics that contribute to understanding the Air Force today. Includes professional appearance, customs and courtesies, officership and core values, basic communications, officer opportunities, and benefits.

## A S 200A-200B. Evolution of USAF Air and Space Power (1-1)

Meets one hour 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.

Study of air and space power through a historical perspective. Techniques for improving communication, discussion of Air Force heritage, leadership basics. Ethics, values, problem solving, and Air Force core values.

## A S 233. Field Training Unit (2-3) $\mathrm{Cr} / \mathrm{NC}$ I

Required for advanced cadets, military orientation and flight familiarization. Credit granted for four- or six-week field training camp on basis of individual student application with approval of Aerospace Studies department chair.

## UPPER DIVISION COURSES (Intended for successful AFROTC applicants or for those with special permission)

A S 300A-300B. Air Force Leadership Studies (3-3)
Air Force leadership and management principles. Responsibility and authority of an Air Force officer, subordinate leadership, ethics, standards of conduct, and officer values. Improving writing, briefing skills, counseling, and feedback process.

## A S 400A-400B. National Security Affairs/Preparation for Active Duty (3-3)

Role of professional officer in democratic society, socialization within armed services, requisites for adequate national security forces. Political, economic, and social constraints on national defense structure and impact of technological and international developments on defense policy making.

## A S 499. Special Study (1-3) I, II

Prerequisite: Consent of Aerospace Studies department chair.
Individual study. Maximum credit six units.


## Africana Studies

In the College of Arts and Letters

## Faculty

Emeritus: Chambers, Kornweibel
Chair: Weber
Associate Professors: Cornwell, Nesbitt, Toombs, Weber
Assistant Professor: Alkebulan

## 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Afro-American Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22111)
All candidates for the degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in Africana studies courses can apply to the degree.

A minor is not required with this major.
Preparation for the Major. Africana Studies 101A, 101B, 170A, 270; and three units selected from Africana Studies 170B, 240, 250 or 260. (15 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units to include twelve units selected from one of the following areas and six units from each of the two remaining areas and Africana Studies 490. 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, 332, 341, 360*, 445, 448, 452, 453.

Humanities: Africana Studies 362, 363, 365A, 365B, 385, 460, 462, 463, 464, 465, 480, 485.

History and Political Science: Africana Studies 320, 321, 322, 325, 332, 380, 420, 422, 470, 471A, 471B, 472.

* Additional prerequisite required.


## Afro-American Studies Minor

The minor in Afro-American studies consists of a minimum of 18 units in Africana Studies, of which 12 units must be upper division, 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 in residence at San Diego State University.

## Courses (afRAs)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## AFRAS 101A. Introduction to Africana Studies: Social and Behavioral Sciences (3) [GE]

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.

## AFRAS 101B. Introduction to Africana Studies:

## Humanities (3) [GE]

Interdisciplinary introduction to African American history, literature, other arts and religion. Subject areas include methodology and theoretical perspectives of Africana studies.

## AFRAS 120. Composition (3) [GE]

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 credit (Cr) in Rhetoric and Writing Studies 92A or 92B or 97, 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 Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101 or higher-numbered composition course.

## AFRAS 140. Oral Communication (3) [GE] 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 Chicana and Chicano Studies 111A or Communication 103.

## AFRAS 170A-170B. Afro-American History (3-3) [AI] I, II

American history from a Black perspective. These courses satisfy the graduation requirement in American Institutions.

## AFRAS 200. Intermediate Expository Writing and Research Fundamentals (3) [GE]

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements; and Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101. 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. Not open to students with credit in Chicana and Chicano Studies 200, English 200, General Studies 260D, Linguistics 200, or Rhetoric and Writing Studies 200.

## AFRAS 240. Africana Intellectual Thought (3) [GE]

Major theories and theory-makers and production of a global black intellectual tradition. Thoughts and writings of major black leaders as they relate to liberation, struggle, resistance, and cultural production.

## AFRAS 250. Psychology of Blackness (3) [GE]

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.

## AFRAS 260. Africana Literary Study (3) [GE]

Oral and written literature produced by people of African descent. How Africana people use language to communicate their history and culture. Basic literary vocabulary, techniques, and theories for the nonspecialist.

AFRAS 270. African Foundations of Africana Studies (3) [GE]
African foundations of Africana studies from contemporary issues to forces that shaped Africa and its Diaspora.

AFRAS 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)
AFRAS 320. Political Economy of Race and Class (3) [GE]
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.

## AFRAS 321. Black Political Participation in America (3) [GE]

Prerequisites: Africana Studies 101A 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.

## AFRAS 322. African American Political Thought (3) [GE]

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.

## AFRAS 325. Public Policy and Afro-American

Community (3) [GE] II
Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

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.

## AFRAS 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.

## AFRAS 331. The Black Family (3)I

Structure and functions of the Black family in contemporary American society.

## AFRAS 332. Black Women: Myth and Reality

Prerequisites: Africana Studies 101A or 101B.
Images of Black women in America and how those images have been distorted.

## AFRAS 341. Cultural Patterns and African American Identity (3) [GE]

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.

## AFRAS 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.

## AFRAS 362. Rhetoric of Black America (3)

Prerequisite: Three units of Afro-American history or communications.

Rhetoric of Black Americans from David Walker to the present, role rhetoric has played in history of Black people and an analysis of Black audience in terms of the Black experience.
AFRAS 363. Sociocultural Analysis of Black Languages
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.

## AFRAS 365A. African American Literature to 1900 (3) [GE]

Prerequisite: Africana Studies 101B or 260 completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Eighteenth and nineteenth century writing by African American authors. Issues of literary form, canon formation, and sociopolitical impact of the literature upon African American culture.

## AFRAS 365B. African American Literature After 1900 (3) [GE]

Prerequisite: Africana Studies 101B or 260 or completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Writing by African American authors after 1900. Issues of literary form, canon formation and sociopolitical impact of the literature upon African American and American culture of the twentieth and twentyfirst centuries.
AFRAS 380. Blacks in the American Justice System (3) [GE]
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.

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## AFRAS 385. African American Music (3) [GE]

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.

## AFRAS 420. Afro-Americans and the Politics of Urban Education (3) [GE]

Prerequisites: Africana Studies 101A. 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.
AFRAS 422. Modern Civil Rights Movement (3)
Prerequisite: Africana Studies 101A or 101B.
Key events, strategies, and theoretical debates that emerged from struggle for black equality during modern civil rights movement in the United States from 1945 to present.

## AFRAS 445. Ethnicity and Social Psychology (3) [GE]

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.

## AFRAS 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.

## AFRAS 452. Race Relations Strategies (3)

Prerequisite: Africana Studies 101A 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.

## AFRAS 453. Issues in Mental Health: A Multicultural Perspective (3) <br> Prerequisite: Africana Studies 250.

Examination of multicultural mental health issues. Institutionalization, treatment, social policy funding, prevention, insurance, and community programs will be covered. Relevant research literature will be examined.
AFRAS 460. Black Images in Western Literature (3) [GE]
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.

## AFRAS 462. The Harlem Renaissance (3)

Black literature of the 1920s from literary, historical, sociological and cultural perspectives.
AFRAS 463. Black Literatures of the World (3) [GE]
Prerequisite: Africana Studies 101B or 260 or completion of the General Education requirement in Foundations II.C., Humanities for nonmajors.

Afro-American literature in context of world literatures by Blacks. Cross-cultural influences between Africa and the Americas.

## AFRAS 464. Caribbean Literature (3) [GE]

Prerequisite: Africana Studies 101B or 260 or completion of the General Education requirement in Foundations II.C., Humanities for nonmajors.

Political, religious, and musical paradigms in writing from 1900 to present. Politico-religious movements and related art forms (i.e. Rastafarian Reggae, Dub Poetry).

## AFRAS 465. Africa in Literature and Film (3) [GE]

(Same course as French 465.)
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities for nonmajors.

African cultural history through literature and film. Consistency/ variety of African cultural expressions and conventions in literature and film. Taught in English. (Formerly numbered French 425.)

## AFRAS 470. Comparative History: Afro-American and African Heritage (3) [GE]

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.
AFRAS 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; antislavery movements and Black nationalism; slavery's end and dawn of freedom.

## AFRAS 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.

## AFRAS 472. Comparative Slavery (3) [GE]

Prerequisites: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Comparative history of enslavement of Blacks throughout western hemisphere. Uses United States as baseline. Further comparisons to ancient Mediterranean, African, and Middle Eastern societies; Nazi Germany; contemporary Asian cultures.

## AFRAS 480. History of Afro-American Jazz

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.

## AFRAS 485. Blacks in the Arts (3)

Prerequisite: Africana Studies 101B.
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.

## AFRAS 490. Senior Seminar (3)

Prerequisite: Open only to majors who have completed the first semester of junior year.

Capstone experience in which mastery of practice, theories, concepts, and issues central to Africana studies is demonstrated.

## AFRAS 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.

## AFRAS 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: Arts and Letters 331

TELEPHONE: 619-594-6991
FAX: 619-594-2646

## Faculty

Chair: Field
Professors: Kilpatrick, Parker
Associate Professor: Field
Assistant Professor: Kamper
Adjunct: Cayleff, Colston, Connolly, Cooper, Cox, Darby, Gamble, Garrett, Greenfeld, Ortiz, Reinholtz, Robinson-Zanartu, Watson, White

## Offered by the Department

Minor in American Indian studies.

## 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 careers 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; 12 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 in residence at San Diego State University.

## Courses (AMIND)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## AMIND 110. American Indian Heritage (3) [GE] I, II

(Selected sections offered as distance education.)
Major American Indian themes, beliefs, and practices and their impact on Western civilization through institutions, art, literature, philosophy, and religion.

## AMIND 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)

## AMIND 300. American Indian Oral Literature (3) [GE] I

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.

## AMIND 303. American Indian Women in American Society

Historical and contemporary analysis of the role of Indian women in both Indian and dominant society.

## AMIND 320. American Indians in Contemporary Society (3) [GE] 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.

## AMIND 400. The American Indian Political Experience <br> (3)

Social and political response to dominant group policies by the American Indian as compared to other minority groups.

## AMIND 420. Indian Peoples of California (3)

Indian peoples of California. Their histories and cultures from oral traditions to contemporary issues. Focus on selected Indian tribes and communities.

## AMIND 425. Indians of the Plains (3)

Indian peoples of the Plains. Their histories and cultures from oral traditions to contemporary issues. Focus on selected Indian tribes and communities.

## AMIND 430. American Indian Poetry and Fiction (3) [GE] 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, Erdrich, and others.

## AMIND 435. Indians Through Film and Television (3)

Ethnographic film-making. Impact of movies and television on popular concepts of Indians. Films viewed in class.

## AMIND 440. American Indian History (3) [GE] 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.

## AMIND 451. American Indian Identity <br> (3) [GE]

(Same course as Anthropology 451.)
Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Multidisciplinary perspectives on American Indian identity today. Topics include perspectives from political, ethnic, cultural and legal standpoints, both within and outside of indigenous communities, as well as diachronic variation in perspectives. (Formerly numbered American Indian Studies 450.)

## AMIND 460. American Indian Languages <br> (3) [GE]

(Same course as Linguistics 460.)
Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Structures of American Indian languages. Language families of North America, history, and present circumstances. Interdependence of language and culture, differences in ways of speaking. Issues of language endangerment, language death, language maintenance, and language revitalization.

## AMIND 470. American Indian Religion (3) [GE] 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 surveyed as they have been influenced by foreign elements and philosophies. Influences on values and tribalism as reflected through symbols and other measures.

## AMIND 480. Issues in American Indian Education (3) [GE]

Prerequisites: American Indian Studies 110 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Cross-cultural differences in learning styles, emphasis on Native American styles. Cross-cultural differences in child socialization related to readiness for school. Literacy-related practices in oral communities. Bilingual education in Native American communities. Local educational empowerment.

## AMIND 485. Federal Indian Law (3)

Prerequisite: American Indian Studies 110, 320, or 440.
Legal relationship between the United States and Indian people and Indian tribes as field of Indian law was developed and has changed over the years until the present.

## AMIND 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.

## AMIND 499. Special Study (1-4)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.


# Anthropology 

OFFICE: Arts and Letters 448
TELEPHONE: 619-594-5527
FAX: 619-594-1150 / E-MAIL: anthro@mail.sdsu.edu
http://www-rohan.sdsu.edu/~anthro

## Faculty

Emeritus: Goldkind, Greenfeld, Henry, Himes, Leach, Lippold, Moore, Pendleton, Rohrl, Rollefson, Watson, Whitney
Chair: Mallios
Professor: Ball
Associate Professors: Gamble, Mallios, Pérez, Sobo
Assistant Professors: Mayes, Nevins
Lecturers: Conway, Miller, Rissolo

## 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 public service 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

In the College of Arts and Letters

## 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 and 102; and either Economics 201, Political Science 201, Sociology 201, or Statistics 119 or 250. In addition, three units from the following one-unit courses taught through the Social Science Research Laboratory: Social Science 201A-201J. (12 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$. The minimum grade in each class is C or higher.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirements. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Graduation Survey. All majors will complete an online survey assessing their experiences in the department and educational outcomes in the major. Students answer the survey online at the Department of Anthropology webpage. The survey must be completed during the student's final semester.

Major. A minimum of 36 upper division units in anthropology to include Anthropology 301, 302, 303, 304. In addition, 24 upper division units in anthropology must be completed from the following areas:

Area/Regional: Nine units selected from Anthropology 349, 350, $442,444,445,446,448,449,450,452,457,471,499,582$.

Methods: Six units selected from Anthropology 312, 495, 499, 500, 505, 520, 531, 560, 561, 580, 583.

Theory/Topical: Nine units selected from Anthropology 402, 406, 410, 422, 424, 430, 432, 439, 451, 483, 499, 508, 522, 529, 533, 535, 536, 583.

## Anthropology Minor

The minor in anthropology consists of a minimum of 18 units in anthropology to include Anthropology 101, 102, and 12 upper division units in anthropology selected from:

Area/Regional: Six units selected from Anthropology 349, 350, 442, 444, 445, 446, 448, 449, 450, 452, 457, 471, 499, 582.

Methods: Three units selected from Anthropology 301, 302, 303, 304, $312,495,499,500,505,520,531,560,561,580,583$.

Theory/Topical: Three units selected from Anthropology 402, 406, 410, 422, 424, 430, 432, 439, 451, 483, 499, 508, 522, 529, 533, 535, 536, 583.

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 in residence at San Diego State University.

## Courses (anth)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## ANTH 101. Human Biocultural Origins (3) [GE] I, II

Note: Cannot be used for General Education in combination with Geography 101 or 103.

Humankind'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.

ANTH 102. Introduction to Cultural Anthropology (3) [GE] I, II
May be taken before Anthropology 101.
Our relationship to our environment; types of preliterate society; systems of social organization, politics, economics, religion, and language.

## ANTH 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 <br> (Intended for Undergraduates)

ANTH 301. Principles of Physical Anthropology
(3)

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.

## ANTH 302. Principles of Archaeology

(3)

Prerequisite: Anthropology 101.
History, method, and theory of archaeological data acquisition and interpretation. Methods of data recovery and analysis suitable to resoIution of historical and processual questions. Archaelogical examples from a worldwide sample of prehistoric and historic societies.

## ANTH 303. History of Ethnological Theory <br> (3)

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.

## ANTH 304. Principles of Anthropological Linguistics

Prerequisite: Anthropology 102.
Structural nature of language. How languages differ, change and influence each other. Language families of the world. Significance of language for human social life in a variety of cultures.

## ANTH 312. Archaeological Field Techniques <br> (3)

Six hours of activity.
Prerequisite: Anthropology 302.
Archaeological excavation of significant sites in San Diego. Techniques of excavation, recording, and surveying.

## ANTH 349. Roots of Civilizations (3) [GE]

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.

## ANTH 350. Cultures Around the Globe (3) [GE]

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.

## ANTH 402. Dynamics of Biocultural Diversity (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Interaction of biology and culture in human populations. Relating genetic and cultural processes to the changes in human populations over time.

## ANTH 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.

## ANTH 410. Language in Culture (3) [GE]

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.

## ANTH 422. Music and Culture (3) [GE]

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.C., Humanities required for non-majors.

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.

## ANTH 424. The Supernatural in Cross-Cultural Perspective (3) [GE]

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Magic and religion. Conceptions of the supernatural in a cross section of world's cultures. Anthropological theories relating to supernatural beliefs and practices.

## ANTH 430. Anthropology of Law and Dispute

Processing (3) [GE]
Prerequisite: Anthropology 102, and completion of the General Education requirement in Foundations II.B, Social and Behavioral Sciences required for nonmajors.

Law, social control, and dispute processing studied in sociocultural context. Law in Western society compared with "law-ways" in a number of traditional or nonindustrialized cultures. Basic concepts and theories about law examined crossculturally.

## ANTH 432. Principles of Personality in Culture (3) [GE]

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.

## ANTH 439. Cultural Comparisons Through Film (3) [GE]

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.

## ANTH 442. Cultures of South America (3) [GE]

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.

## ANTH 444. American Cultures (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.

## ANTH 445. Ethnology of North America (3) [GE]

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.

## ANTH 446. Native Peoples of the Southwest (3) [GE]

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.

## ANTH 448. Cultures of Oceania (3) [GE]

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Aboriginal cultures and peoples of Australia, Melanesia, Micronesia, and Polynesia in prehistoric, historic, and modern times.

## ANTH 449. Cultures of Sub-Saharan Africa (3) [GE]

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. Comparison of cultural traditions, social organization, and modern trends in newly emergent nations of the area.

## ANTH 450. Cultures of India (3) [GE]

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.

## ANTH 451. American Indian Identity (3) [GE]

(Same course as American Indian Studies 451.)
Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Multidisciplinary perspectives on American Indian identity today. Topics include perspectives from political, ethnic, cultural and legal standpoints, both within and outside of indigenous communities, as well as diachronic variation in perspectives.

## ANTH 452. Japanese Society (3) [GE]

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.

## ANTH 457. Native Cultures of California (3) [GE]

Prerequisites: Anthropology 102 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Cross-cultural comparison of California Indian societies. Traditional political, religious, and economic institutions. Ecological adaptations. Linguistic diversity, traditional architecture, and culture change. Focus on Kumeyaay, Cahuilla, Chumash, Patwin, Pomo, and Yurok.

## ANTH 471. Archaeology of North America (3)

Prerequisite: Anthropology 101 or 102.
Origins of the American Indian and survey of the main prehistoric cultures of the North American continent.

## ANTH 483. Health and Nutrition in Antiquity

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.

## ANTH 495. Internship in Applied Anthropology (1-3) Cr/NC

Prerequisites: Anthropology 301, 302, 303, 304.
Supervised field placement of students in campus or community organization, museums, cultural resource management firms, social service and development agencies, forensic laboratories and other offices including business firms where concepts and principles of anthropology can be put into practice. May be repeated for maximum credit three units.

## ANTH 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.

## ANTH 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)

## ANTH 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.

## ANTH 505. Human Osteology (3)

Two lectures and three hours of laboratory.
Prerequisite: Anthropology 101. Recommended: Anthropology 301 and/or Biology 212.

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.

## ANTH 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.

## ANTH 520. Ethnographic Field Methods

Prerequisite: Anthropology 102.
Problems and techniques of field work in ethnographic and social anthropological research; field work projects conducted using various qualitative and quantitative research techniques. Students work with informants in various settings.

## ANTH 522. Economic Anthropology <br> (3)

Prerequisite: Anthropology 102.
Integrates analyses of production, distribution, and consumption of goods and services with study of cultures. Interrelated economic, social, and cultural thought; classifications of disparate economies and reciprocity.

## ANTH 529. Urban Anthropology (3)

Prerequisite: Anthropology 102.
Urban adaptations of past and present societies. Descriptive topics and applied concerns regarding urban origins, migrations, kinship, ethnicity, stratification, and change. Ethnographic examples drawn from Western and non-Western societies.

## ANTH 531. Applied Anthropology (3)

Prerequisite: Anthropology 102.
Application of anthropological concepts to solve human problems in a wide range of areas including research such as social impact assessment and evaluation, and interventions such as cultural brokerage and community development. Examples of applied work used from both western and non-western societies.

## ANTH 533. Race, Ethnicity, and Identity (3)

Prerequisite: Anthropology 102.
Theories and practices of race, ethnicity, and identity from a crosscultural and anthropological perspective. History of race in US and other regions, focusing on how identities are constructed around concepts of difference.

## ANTH 535. Sex, Gender, Kinship, and Marriage

Prerequisite: Anthropology 102.
Anthropological theories and typologies relating to kinship and marriage systems, their history, their relationship to cultural practices, their implications for constraints on sexual practices, and their significance in definition of gender and gender hierarchies in world societies.

ANTH 536. Gender and Human Sexuality (3
Prerequisite: Anthropology 102.
Constructions of gender and sexuality from anthropological perspective. Social constructions of body, norms, deviance, and medicalization of sexuality.

## ANTH 560. Advanced Archaeological Field Techniques

Six hours of activity.
Prerequisite: Anthropology 312.
Advanced projects in excavation and stabilization of ruins, archaeological surveys, laboratory analysis, preparation of reports, and act as unit supervisor. Course may be repeated with consent of instructor. Maximum credit six units.

## ANTH 561. Archaeological Laboratory Methods <br> (3)

Two lectures and three hours of laboratory.
Prerequisite: Anthropology 560.
Application of palynology, paleontology and relevant technologies. Individual laboratory research project required.

## ANTH 580. Anthropological Data Analysis <br> \section*{(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.

## ANTH 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.

## ANTH 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.

## ANTH 596. Topics in Anthropology (1-3)

Prerequisite: Consent of instructor.
Advanced topics in anthropology. 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.

GRADUATE COURSES
Refer to the Graduate Bulletin.

OFFICE: Business Administration 327
TELEPHONE: 619-594-5268

## FAX: 619-594-4877

http://www-rohan.sdsu.edu/dept/linguist/index.html

## Faculty

Chair: Kaplan
Assistant Professor: Osman
Offered by the Center for Islamic and Arabic Studies
Minor in Islamic and Arabic studies.

## Offered by International Business

Major in international business, with emphasis in Arabic.

## Islamic and Arabic Studies Minor

Offered by the Center for Islamic and Arabic Studies, the minor in Islamic and Arabic studies consists of a minimum of 15 units, 12 of which must be upper division, to include Political Science 363; Religious Studies 328*; and six units from History 473, 474, 574. Three additional units selected may be selected from Arabic 101, 102, 201, 202, 330; History 473, 474, 574.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

* Additional prerequisites required.


## Language Requirement for the

## B.A. Degree in Liberal Arts and Sciences

Students electing the study of Arabic to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Arabic 201 or the equivalent level of achievement. The usual sequence of coursework is Arabic 101, 102, 201, and 202. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

## High School Equivalents

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the 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.

## In the Department of Linguistics and Oriental Languages <br> In the College of Arts and Letters

## ARAB 302. Advanced Arabic II (4) [GE]

Prerequisites: Arabic 301; and completion of the General Education requirement in Foundations II.C., Humanities.

Continuation of Arabic 301. More advanced writing and longer expository texts. Reading modern and classical texts.

## ARAB 330. Arabic Culture (3) [GE]

Prerequisites: Upper division standing; and completion of the General Education requirement in Foundations II.C., Humanities.

Cultures of Arabic speaking peoples of the Near East, Middle East, and North Africa, as reflected in literature, the arts, history, political and social institutions. Taught in English

## ARAB 496. Topics in Arabic Studies (1-4)

Topics in Arabic 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.


# In the College of Professional Studies and Fine Arts 

E-MAIL: artinfo@mail.sdsu.edu
http://www.sdsu.edu/art

Accredited by the National Association of Schools of Art and Design. Accredited by the Foundation for Interior Design Education Research for Interior Design.

For purposes of exhibition and reference, the school reserves the right to retain for a limited period some of each student's work produced in class.

The School of Art, Design, and Art History is an impacted program. Therefore, students may enroll in art courses only to the maximum units allowed for credit towards graduation. Students enrolling in a course beyond the maximum allowable units will be disenrolled.

## Faculty

Emeritus: Baker, K., Berg, Dirks, Dominguez, Dumlao, Esser, Fisch, Frick, Higgins, Hopkins, Hunter, Longenecker, Miller, Moaney, Orth, Perczel, Ray, Rigby, Rogers, Shirk, Wallace
Interim Director: Rigby
Professors: Baker, R., Burkett, Cooling, Cotten, Hayakawa, Maruyama, Merritt, Nelson, Roberts-Fields, Yapelli
Associate Professors: Berelowitz, Mansfield, Nakamura, Siprut
Assistant Professors: Deffebach, Johnson, Keely, Stringfellow
Lecturers: Bendeler, Bevins, Burgess, Carlson, Dunn, Fobes, Harris, Hewitt, Hughes-Oelrich, Lieberman, Litrownik, Luera, Matzigkeit, Mayer, Palese, Shigley, Trepchina, Walls, Williams, Woods, Wyss

## Offered by the School of Art, Design, and Art History

Master of Arts degree in art.
Master of Fine Arts degree in art.
Major in art with the B.A. degree in liberal arts and sciences.
Emphasis in art history.
Emphasis in studio arts.
Major in art with the B.A. degree in applied arts and sciences.
Emphasis in applied design.
Emphasis in graphic design.
Emphasis in interior design.
Emphasis in multimedia.
Emphasis in painting and printmaking.
Emphasis in sculpture.
Teaching major in art for the single subject teaching credential.
Minor in art.
Minor in art history.

## The Major

A significant concern of the School of Art, Design, and Art History is the creative growth of its students. The school focuses on the development of sound undergraduate programs which provide a strong basic foundation in art. A major in art may be planned with an emphasis in applied design, with specialities in ceramics, furniture/woodworking, metalsmithing, jewelry, and textiles; art history; studio arts; graphic design; interior design; multimedia; painting and printmaking; and sculpture. A broad spectrum of courses for both majors and nonmajors in art history, art appreciation, basic drawing and design is also available.

All emphases require a set of core courses consisting of courses in drawing, design, and the survey of art history of the Western world. It is strongly recommended that all students complete the core requirements during their freshman year, or at least prior to taking beginning coursework in a specific program emphasis. It is recommended that students take courses from other emphases in order to enhance their overall art experience. In addition to the undergraduate degree, the
school offers a Master of Arts degree (30 units) in all of these emphases and a Master of Fine Arts degree (60 units).

Although a degree in art is often pursued as a means of selffulfillment and creative growth, graduates of the school are employed in a variety of settings. The programs in graphic design, multimedia, and interior design have a preprofessional orientation supplemented by a strong liberal arts background. Interior design can lead to interior, architectural, landscape design or city planning. Graphic design can lead to magazine and book design; corporate design; branding; design for film, television, and the recording industry; information design; environmental graphic design; packaging; advertising; interface design for kiosks, CD-ROM, and the Internet; and type design. Multimedia prepares students in the areas of interactive and timebased media, such as web design, net art, gaming, DVD design, motion graphics, instructional systems, book arts, and publishing. The areas of painting, printmaking, 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 applied design program can be developed to specialize in ceramics, furniture design/woodworking, jewelry, metalsmithing, textile design and weaving.

## Impacted Programs

Emphases in the School of Art, Design, and Art History are impacted. Students must enter the university under the designated major code for selected programs. To be admitted to the selected program, refer to the program description for specific impacted criteria.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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)

Impacted Program. The art history emphasis is designated as an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the art history emphasis, students must meet the following criteria:
a. Complete with a grade of C or higher: Art 100, 101, 258, and 259. These courses cannot be taken for credit/no credit (Cr/NC);
b. Have a cumulative GPA of 2.50 or higher;
c. Students not meeting the minimum GPA may petition for special consideration.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Art 100, 101, 158, 258, 259, and 263. Art 100, 101, 258, and 259 must be completed with a grade of $C$ or higher and cannot be taken for credit/no credit (Cr/NC). (18 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. French or German is recommended for those students who plan to pursue graduate study in art history. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units in art history to include Art 578 and 593; and 21 units selected from Art 371 and 557 through 578, and Philosophy 541.

## Emphasis in Studio Arts (Major Code: 10021)

Impacted Program. The studio arts emphasis is designated as an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the studio arts emphasis, students must meet the following criteria:
a. Complete with a grade of C or higher: Art 100, 101, 102, 103, 258, and 259. These courses cannot be taken for credit/no credit (Cr/NC);
b. Have a cumulative GPA of 2.50 or higher;
c. Students not meeting the minimum GPA may petition for special consideration.
To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Art 100, 101, 102, 103, 203, 204, 216, 258, 259, and six units of art electives. Art 100, 101, 102, 103, 258, and 259 must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). (33 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

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)

Impacted Program. The applied design emphasis is designated as an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the applied design emphasis, students must meet the following criteria:
a. Complete with a grade of C or higher: Art 100, 101, 102, 103 258, and 259. These courses cannot be taken for credit/no credit (Cr/NC);
b. Have a cumulative GPA of 2.50 or higher;
c. Students not meeting the minimum GPA may petition for special consideration.
To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Art 100, 101, 102, 103, 220, 258, 259, and six units of art electives. Art 100, 101, 102, 103, 258, and 259 must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). (27 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

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 435, 436, 535, 536
Metal: Art 331, 431, 432, 531, 532
Clay: Art 325, 326, 425, 525, 526
Wood: Art 323, 423, 523

## Emphasis in Graphic Design (Major Code: 10091)

Impacted Program. The graphic design emphasis is designated as an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the graphic design emphasis, students must meet the following criteria:
a. Complete with a grade of C or higher: Art 100, 101, 102, 103, 258, and 259. These courses cannot be taken for credit/no credit (Cr/NC);
b. Have a cumulative GPA of 2.75 or higher;
c. Students not meeting the minimum GPA may petition for special consideration.
To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Art 100, 101, 102, 103, 241, 242, 245, 258, 259; and three units of electives not to include Art 157. Recommended: Art 148, 210, 240. Art 100, 101, 102, 103, 258, and 259 must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). (30 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(W)$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 33 upper division units in art to include six units of art history (Art 577 recommended); Art 340, 341, 342A; 12 units selected from Art 441, 442, 445A, 445B, 445C, 450, 454, 541, 545; six units selected from Art 342B, 343, 344A, 344B, 346, 440, 441, $442,443,445$ A, 445B, 445C, 446, 448, 450, 454, 540, 541, 542, 543, 544,545 , or any other art or art history course.

## Emphasis in Interior Design <br> (Major Code: 02031)

Impacted Program. The interior design emphasis is designated as an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the interior design emphasis, students must meet the following criteria:
a. Complete with a grade of C or higher: Art 100, 101, 102, 103, 258, and 259. These courses cannot be taken for credit/no credit ( $\mathrm{Cr} / \mathrm{NC}$ );
b. Have a cumulative GPA of 2.50 or higher;
c. Students not meeting the minimum GPA may petition for special consideration.
To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Art majors wishing to enter one of the Interior Design upper division courses (Art 451, 453, 552, 553) must receive, as a condition of junior level qualification, a passing evaluation of a portfolio of work submitted to the Interior Design Evaluation Committee. Any advance enrollment in the above-listed upper division courses will remain provisional until clearance of the portfolio review. Reviews are held prior to the beginning of the fall and spring semesters. See the School of Art, Design, and Art History office for specific information concerning current policies pertaining to the review, content of the portfolio, and the schedule to be observed.

Preparation for the Major. Art 100, 101, 102, 103, 148, 247, 248, 249, 250, 251, 258, 259. Art 100, 101, 102, 103, 258, and 259 must be completed with a grade of C or higher and cannot be taken for credit/ no credit (Cr/NC). (36 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units in art to include Art 352, 451, 452, 453, 552, 553; three units selected from Art 323, 325, 436, 450, 547, 591; and six units of art history (Art 577 recommended).

## Emphasis in Multimedia (Major Code: 06991)

Impacted Program. The multimedia emphasis is designated as an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the multimedia emphasis, students must meet the following criteria:
a. Complete with a grade of C or higher: Art 100, 101, 102, 103, 258, and 259. These courses cannot be taken for credit/no credit (Cr/NC);
b. Have a cumulative GPA of 2.75 or higher;
c. Students not meeting the minimum GPA may petition for special consideration.
To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Art 100, 101, 102, 103, 240, 242, 258, 259; and six units of art electives, selected in consultation with an adviser, excluding Art 157. Art 100, 101, 102, 103, 258, and 259 must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). (30 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units in art to include six units of art history; 15 units selected from Art 340, 342A, 342B, 344A, 344B, 346, 348, 407, 408, 440, 442, 445A, 445B, 446, 448, 540, 543, 544, 545; Professional Studies and Fine Arts 330 (at least six units must be at the 400-level or higher); and six units of art electives.

## Emphasis in Painting and Printmaking <br> (Major Code: 10021)

Impacted Program. The painting and printmaking emphasis is designated as an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the painting and printmaking emphasis, students must meet the following criteria:
a. Complete with a grade of C or higher: Art 100, 101, 102, 103, 258, and 259. These courses cannot be taken for credit/no credit ( $\mathrm{Cr} / \mathrm{NC}$ );
b. Have a cumulative GPA of 2.50 or higher;
c. Students not meeting the minimum GPA may petition for special consideration.
To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Art 100, 101, 102, 103, 203, 258, 259, and six units selected from Art 204, 210 or 216. Art 100, 101, 102, 103, 258, and 259 must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). (27 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

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, 406, 407, 408, 410, 411, 416, 500, 502, 503, 504, 506, 511.

## Emphasis in Sculpture <br> (Major Code: 10021)

Impacted Program. The sculpture emphasis is designated as an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the sculpture emphasis, students must meet the following criteria:
a. Complete with a grade of $C$ or higher: Art 100, 101, 102, 103, 258, and 259. These courses cannot be taken for credit/no credit ( $\mathrm{Cr} / \mathrm{NC}$ );
b. Have a cumulative GPA of 2.50 or higher;
c. Students not meeting the minimum GPA may petition for special consideration.
To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Art 100, 101, 102, 103, 216, 217, 258, 259; and three units selected from Art 203, 204, 220, 231. Art 100, 101, 102, 103, 258, and 259 must be completed with a grade of $C$ or higher and cannot be taken for credit/no credit (Cr/NC). (27 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units to include Art 416 (six units), 498A, 516, 517; six units of art history; and six units selected from Art 323, 326, 331, 403, 404, 500, 516, 591.

## Art Major

## In Preparation 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.

Impacted Program. The art major in preparation for the single subject teaching credential is an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the art major in preparation for the single subject teaching credential, students must meet the following criteria:
a. Complete with a grade of C or higher: Art 100, 101, 102, 103, 258 and 259. These courses cannot be taken for credit/no credit (Cr/NC);
b. Have a cumulative GPA of 2.50 or higher;
c. Students not meeting the minimum GPA may petition for special consideration.
To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Art 100, 101, 102, 103, 204, 220, 240, 258, 259; Psychology 101; and either Child and Family Development 270 or Psychology 230. Art 100, 101, 102, 103, 258, and 259 must be completed with a grade of C or higher and cannot be taken for credit/ no credit (Cr/NC). (33 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Art 385; Art 340 or 407; Art 559; three units of art history selected from Art 561, $562,564,565,569,570$; and 18 units selected from two sequences below:

Sequence 1. Art 343, 344A, 344B, 443, 448, 540, 543, 544.
Sequence 2. Art 403, 404, 406, 407, 411, 500.
Sequence 3. Art 325, 326, 331, 416, 425, 435, 436, 516.

## 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, interior design, multimedia, 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 in residence at San Diego State University.

## Art History Minor

The minor in art history includes a minimum of 21 units in art distributed as follows: Six units to include Art 258, 259, and three units selected from Art 158 or 263. Twelve units selected from Art 371 and 557 through 577, and with consent of instructor selected Art 596 courses with art history content.

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 in residence at San Diego State University.

## Courses (ART)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

ART 100. Drawing and Composition (3) I, II
Six hours.
The ordering of two-dimensional space through drawing.

## ART 101. Two Dimensional Design and Color (3) I, II

Six hours.
Fundamentals of space and color design. Basic course used as a prerequisite for advanced work.

## ART 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.
ART 103. Three Dimensional Design (3) I, II
Six hours.
Prerequisite: Art 101.
Introduction and investigation of design and theory, and practice in three dimensions.

## ART 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.

## ART 157. Introduction to Art (3) [GE] 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.

## 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.
ART 203. Life Drawing (3) I, II
Six hours.
Prerequisite: Art 102.
Drawing from the nude model. Maximum credit six units. Students may not re-enroll in this course after earning six units of $C$ or higher (or $\mathrm{Cr})$. Copy of transcript required.

## ART 204. Painting (3) I, II

Six hours.
Prerequisites: Art 101 and 102.
Pictorial composition and techniques of painting. Maximum credit six units. Students may not re-enroll in this course after earning six units of $C$ or higher (or Cr). Copy of transcript required.

## ART 210. Printmaking (3) I, II

Six hours.
Prerequisites: Art 101 and 102.
Introduction and exploration of basic printmaking media. Emphasis on aesthetic and technical processes in intaglio, lithography, relief and serigraphy. Maximum credit three units. Students may not reenroll in this course after earning a grade of C or higher (or Cr ). Copy of transcript required.

## ART 216. Sculpture (3) I, II

Six hours.
Prerequisite: Art 103.
Introduction and experimentation of basic sculpture ideas, methods and materials. Maximum credit six units. Students may not re-enroll in this course after earning six units of $C$ or higher (or Cr ). Copy of transcript required.

## ART 217. Figurative Sculpture (3) I, II

Six hours.
Prerequisite: Art 103.
Creative experimentation with sculptural forms from the human figure. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr ). Copy of transcript required.

## ART 220. Design in Crafts <br> (3) I, II

## Six hours.

Prerequisite: Art 103.
Visual and structural form in crafts.

## ART 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. Not open to students with credit in Art 331. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

## ART 240. Fundamentals of Digital Media <br> (3) I, II

Six hours
Prerequisites: Grade of C (2.0) or better in Art 100 and 101.
Principles of digital media used in visual communication. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr ). Copy of transcript required.
ART 241. Graphic Design I (3) I, II
Six hours.
Prerequisites: Grade of C (2.0) or better in Art 100, 101, 102, 103. Computer proficiency required with working knowledge of vector graphics software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.

Principles of two-dimensional design applied to graphic form, including form/counter form, contrast, progression, and sequence.

## ART 242. Typography I (3) I, II

Six hours.
Prerequisites: Grade of C (2.0) or better in Art 100, 101, 102, 103. Computer proficiency required with working knowledge of vector graphics and page layout software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.

Fundamentals of typography including history, theory, and practice with emphasis on study of letterforms and type design; principles of two-dimensional design and hierarchy applied to basic typographic layout. (Formerly numbered Art 243.)
ART 245. History of Graphic Design (3) I
Prerequisites: Grade of C (2.0) or better in Art 258 and 259. Proof of completion of prerequisites required: Copy of transcript.

Evolution of graphic communication from prehistory through postmodern design and the digital revolution.
ART 247. The House and Its Environment (3)
Architecture, interior design, landscape and city planning for forming the physical and aesthetic environment. Not open to students with credit in Art 347.
ART 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.

## ART 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.

## ART 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.
ART 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.

## ART 258. Introduction to Art History I (3) [GE] I, II

Art development in painting, sculpture, architecture, and handicrafts from the dawn of art to the Renaissance. Illustrated.
ART 259. Introduction to Art History II (3) [GE] I, II
The period from the Renaissance through the modern school treated in the same manner as in Art 258.

## ART 263. Asian Art (3)

Arts of Asian countries including China, India, and Japan from prehistoric to pre-modern times. Role of religious belief and state ideology in shaping visual characteristics of regional cultures in Asia.

## ART 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 <br> (Intended for Undergraduates)

ART 323. Beginning Furniture Design and Woodworking (3) I, II Six hours.
Prerequisite: Art 103. Recommended: Art 148.
Principles of design through the making of furniture. Basic techniques in woodworking and joinery. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

## ART 325. Beginning Throwing-Ceramics <br> (3) I, II

## Six hours.

Prerequisites: Art 102 and 103. Recommended: Art 220.
Basic methods of forming, decorating, glazing, and firing pottery forms with emphasis on the use of the potter's wheel. Maximum credit three units. Students may not re-enroll in this course after earning a grade of $C$ or higher (or Cr). Copy of transcript required.

## ART 326. Beginning Handbuilt Ceramics <br> (3) I, II

Six hours.
Prerequisites: Art 102 and 220.
Design and construction of handbuilt ceramic forms and application of glaze for surface enhancement. Traditional approaches and contemporary issues. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required. (Formerly numbered Art 225.)

## ART 331. Beginning Jewelry and Metalwork <br> (3) I, II <br> \section*{Six hours.}

Prerequisites: Art 102 and 103. Recommended: 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. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr ). Copy of transcript required.
ART 340. Photographic Imagery (3) I, II
Six hours.
Prerequisites: Grade of C (2.0) or better in Art 100, 101, 102, 103; and Art 241 for graphic design majors. Proof of completion of prerequisites required: Copy of transcript.

Visual communication and expression using photographic media including photomechanical and digital processes and theory of color and light. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

## ART 341. Graphic Design II (3) I, II

Six hours.
Prerequisites: Grade of C (2.0) or better in Art 241, 242, 245. Computer proficiency required with working knowledge of vector graphics and page layout software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.

Graphic form with emphasis on visual translation techniques, visual metaphor, signs and symbols.

## ART 342A. Typography II (3) I, II

Six hours.
Prerequisites: Grade of C (2.0) or better in Art 242 and 245. Computer proficiency required with working knowledge of vector graphics and page layout software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.

Typographic layout and page systems including theories of visual organization, proportion, and grids with emphasis on expression and communication. (Formerly numbered Art 342.)

## ART 342B. Letterpress (3) I, II

Six hours.
Prerequisite: Grade of C (2.0) or better in Art 210 or 242.
History, technology, and process of relief printing using moveable type and photopolymer plates to create individual and collaborative page designs that integrate image and text. Maximum credit six units.

## ART 343. Drawing and Illustration for Graphic Design I <br> (3)

Six hours.
Prerequisite: Grade of C (2.0) or better in Art 203 or 204. Proof of completion of prerequisite required: Copy of transcript.

Visual notation, sketching, representational drawing, and visual translation related to graphic design.

## ART 344A. Design for the Internet I <br> (3) I, II, S

Six hours.
Prerequisite: Grade of C (2.0) or better in Art 240 or 340.
Creative and practical applications of interactive visual communication using digital media fundamental to creation and design of interface, graphics, illustrations, photography, animation, sound, video, and interactive navigation for presentation on the Internet. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required. (Formerly numbered Art 344.)

## ART 344B. Design for the Internet II (3) I, II

Six hours.
Prerequisite: Grade of C (2.0) or better in Art 344A.
Intermediate design and development for World Wide Web. Topics include animation, gaming, advanced scripting and Internet art, and experimental applications.

## ART 346. The Art of the Book I (3)

Six hours.
Prerequisite: Any 300- or 400-level art or design course.
Terminology, tools, materials, and reproduction processes related to the making of books; historical and contemporary book structures; and development of content in the form of image and text. Maximum credit six units. Students may not re-enroll in this course after earning six units of $C$ or higher (or Cr ). Copy of transcript required.
ART 347. The House and Its Environment (3) I
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.
ART 348. Three Dimensional Digital Media (3) II
Six hours.
Prerequisite: Grade of C (2.0) or better in Art 148 or 240 or 241 or 242.

Design communication utilizing digital media as it relates to threedimensional objects and spatial environments.

## ART 352. Methods and Materials of Interior Design (3) 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.

ART 357. World Art in Contemporary Life (3) [GE] II
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

World art and technology from ancient to post modern era and their relationship to contemporary culture and life. Gallery visits required.

## ART 371. Medieval Art (3)

Prerequisite: Art 258.
Development of painting, sculpture, and architecture from time of Constantine through Gothic period.
ART 385. Art Education History and Practice (3)
Six hours.
Prerequisites: Art 102, 103, 258, 259.
History and theory of art education. Role of art in child and adolescent development, art heritage, diversity and equity in art education and teaching methodologies. For art majors interested in pursuing the single subject teaching credential.

## ART 387. Art for Elementary School Teacher (3) I, II, S

Six hours.
Prerequisite: Art 101, or upper division standing and consent of instructor.

A design-crafts course that explores in depth materials and processes primarily used by the elementary school teacher.

## ART 403. Advanced Life Drawing <br> (3)

Six hours.
Prerequisite: Art 203.
Drawing the nude model. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr ). Copy of transcript required.

## ART 404. Intermediate Painting <br> (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. Students may not re-enroll in this course after earning six units of C or higher (or Cr ). Copy of transcript required.
ART 406. Experimental Processes in Painting and Drawing
Six hours.
Prerequisites: Art 203 and 204.
Structure in picture making. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or $\mathrm{Cr})$. Copy of transcript required.

## ART 407. Black and White Photography as a Fine Art Medium (3) I, II <br> Six hours.

Prerequisites: Art 102, 103, and six units of studio art.
Black and white photography and darkroom techniques combined with independent research in contemporary art and photography. Criticism in contemporary context. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr ). Copy of transcript required.

## ART 408. Color Photography as a Fine Art Medium (3) II

Six hours.
Prerequisite: Art 407 or portfolio review.
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. Students may not re-enroll in this course after earning six units of C or higher (or Cr ). Copy of transcript required.
ART 410. Intaglio Printmaking (3)
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. Students may not re-enroll in this course after earning six units of $C$ or higher (or Cr ). Copy of transcript required.

## ART 411. Lithography Printmaking <br> (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. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

## ART 416. Intermediate Sculpture <br> (3) I, II

Six hours
Prerequisite: Art 216.
Individual investigation into sculpture ideas, methods and materials, including clay, metal, plastics, paper or wood. Individual development in sculpture. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

## ART 423. Intermediate Furniture Design and Woodworking (3) I, II <br> Six hours

Prerequisite: Art 323.
Intermediate individual design: Exploration of materials, processes and function. Specialized techniques focusing on case construction, making of drawers and doors for furniture. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

## ART 425. Intermediate Ceramics (3) I, II

Six hours.
Prerequisites: Art 325 and 326.
Continuation of Art 325. Further development of knowledge, skills and philosophy of ceramics through individual creative projects. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.
ART 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. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

## ART 432. Metalsmithing (3)

Six hours.
Prerequisite: Art 231 or 331
Creative design and techniques in metalsmithing. Maximum credit three units. Students may not re-enroll in this course after earning a grade of $C$ or higher (or Cr). Copy of transcript required.

## ART 435. Nonwoven Textile Construction (3) I, II

Six hours.
Prerequisites: Art 102 and 103. Recommended: Art 220.
Textile structures with an emphasis on nonloom techniques. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

## ART 436. Textile Design (3) I, II

Six hours.
Prerequisites: Art 102 and 103. Recommended: 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. Students may not re-enroll in this course after earning six units of C or higher (or Cr ). Copy of transcript required.

## ART 440. Intermediate Photographic Imagery <br> (3)

Six hours
Prerequisite: Grade of C (2.0) or better in Art 340.
Visual and creative expression using photographic media with emphasis on refining technical skills, including lighting.

## ART 441. Information Graphics (3) I, II

Six hours.
Prerequisites: Grade of C (2.0) or better in Art 340, 341, 342A. Computer proficiency required with working knowledge of vector graphics, page layout, and digital image editing software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.

Analysis and translation of complex information into visual communication systems.

## ART 442. Typography III (3) I, II

Six hours.
Prerequisites: Grade of C (2.0) or better in Art 340, 341, 342A. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, and motion graphics software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.

Typographic problem solving including more complex text materials and type with image.

## ART 443. Drawing and Illustration for Graphic Design II (3) I, II

 Six hours.Prerequisite: Grade of C (2.0) or better in Art 343. Proof of completion of prerequisite required: Copy of transcript.

Drawing and illustration methods, materials, tools, and processes as they relate to graphic design. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or $\mathrm{Cr})$. Copy of transcript required.

## ART 445A. Professional Practice in Graphic Design (1) Cr/NC I, II

Two hours.
Prerequisites: Grade of $C$ or better in Art 340, 341, 342A, and consent of instructor.

Evolving role of graphic designer in contemporary design practice, standards of professional conduct, and business practices.

## ART 445B. Graphic Design Internship (3) Cr/NC I, II

Prerequisites: Grade of $\mathrm{C}(2.0)$ or better in two of the following: Art $441,442,450,454$, or 541, and portfolio review. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, motion graphics, and web design software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.

Field experience with practicing professionals. Maximum credit six units. (Formerly numbered Art 445.)

## ART 445C. Senior Portfolio/Exhibition (3) II

Six hours.
Prerequisites: Grade of $C$ (2.0) or better in two of the following: Art $441,442,450,454$, or 541, and portfolio review. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, motion graphics, and web design software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.

Planning, strategy, and development of a comprehensive body of design work to be professionally presented in a portfolio and/or exhibition format.

## ART 446. The Art of the Book II

Six hours.
Prerequisite: Art 346.
Creative research focused on concept, context, and form as they relate to communication and personal or collaborative expression within the context of the book. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr ). Copy of transcript required.

## ART 448. Sequential Media (3) I, II

Six hours.
Prerequisite: Grade of C (2.0) or better in Art 240 and 341, or 344A, or 348 .

Study and presentation of sequential imagery. Maximum credit six units. (Formerly numbered Art 444.)

## ART 450. Packaging Design <br> (3) I

Six hours.
Prerequisites: Grade of C (2.0) or better in Art 340, 341, 342A Computer proficiency required with working knowledge of vector graphics, page layout, and digital image editing software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.

Principles and theories of design: branding, typography, illustration, and photography applied to three-dimensional form within a specified social and cultural context with emphasis on strategy and concept; structure, functionality and materials; and modular systems.

## ART 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.

## ART 452. Interior Design Practicum (3) Cr/NC I, II <br> 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.

## ART 453. Interior Design III (3) I, II

Six hours of activity.
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.

## ART 454. Environmental Graphic Design (3) II

Six hours
Prerequisites: Grade of C (2.0) or better in Art 340, 341, 342A. Computer proficiency required with working knowledge of vector graphics, page layout, and digital image editing software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.

Identification and communication systems applied to environmental solutions. Landmark and wayfinding signage systems in interior, exterior, and architectural environments in collaboration with interior design students.

## ART 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.

## ART 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

ART 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)
## ART 500. Advanced Drawing

(3)

Six hours
Prerequisites: One year of 400-level studio art coursework and consent of instructor.

Drawing emphasizing qualitative aspect of visual subject matter. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr ). Copy of transcript required.
ART 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. M.F.A. students: Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree.
ART 503. Life Drawing and Painting (3)
Six hours.
Prerequisites: Art 204 and 403.
Drawing and painting from nude and costumed models. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr ). Copy of transcript required.

## ART 504. Advanced Painting (3) I, II

Six hours.
Prerequisite: Six units of Art 404.
Approaches to contemporary concepts in painting. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr ). Copy of transcript required.

## ART 506. Contemporary Issues for Studio Artists (3)

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.

## ART 511. Lithography Printmaking in Color <br> (3) I, II <br> 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. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

## ART 516. Advanced Sculpture <br> (3) I, II

Six hours
Prerequisite: Art 416.
Individual investigations into sculpture ideas, methods and materials. Individual development in sculpture. Materials may include clay, metal, plastics, paper or wood. Maximum credit six units. Students may not re-enroll in this course after earning six units of $C$ or higher (or $\mathrm{Cr})$. Copy of transcript required.
ART 517. Figurative Sculpture (3)
Six hours.
Prerequisites: Art 216 and 217.
Figurative study with emphasis on individual exploration. Maximum credit six units. Students may not re-enroll in this course after earning six units of $C$ or higher (or Cr ). Copy of transcript required.
ART 523. Advanced Furniture Design and Woodworking (3) I, II
Six hours.
Prerequisite: Six units of Art 423.
Advanced individual design: Exploration of materials, process and function. Continued focus on development of personal design statements and specialized techniques. Maximum credit six units. Students may not re-enroll in this course after earning six units of $C$ or higher (or $\mathrm{Cr})$. Copy of transcript required.

## ART 525. Advanced Ceramics <br> (3) I, II

Six hours.
Prerequisite: Art 425.
Study of ceramic design through creative projects of clay forms. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

## ART 526. Clay and Glaze Technology in Ceramic Design

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. Students may not re-enroll in this course after earning six units of C or higher (or Cr ). Copy of transcript required.

## ART 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. Students may not re-enroll in this course after earning six units of C or higher (or Cr ). Copy of transcript required.

## ART 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. Students may not re-enroll in this course after earning six units of C or higher (or Cr ). Copy of transcript required.

## ART 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.
ART 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.
ART 540. Advanced Photographic Imagery (3) II, S
Six hours.
Prerequisites: Grade of C (2.0) or better in Art 340, or Art 240 and 407.

Visual communication and expression using photographic media, including photomechanical and digital processes. Preparation for multimedia and digital prepress. Maximum credit six units with consent of instructor. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.
ART 541. Visual Identity and Branding Systems (3) I, II
Six hours.
Prerequisite: Grade of $C$ (2.0) or better in two of the following: Art 441, 442, 450, 454. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, motion graphics, and web design software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.

Strategy, planning, and problem solving related to visual communication systems with emphasis on social and cultural context.

## ART 542. Typography IV (3)

Six hours.
Prerequisite: Grade of $C$ (2.0) or better in Art 442. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, motion graphics, and web design software consistent with current industry standards. Proof of completion of prerequisite required: Copy of transcript.

Individual creative and scholarly research in typography, conceptual and contextual exploration, typographic experimentation based on theory, strategy, and problem solving. Maximum credit six units.

## ART 543. Drawing and Illustration for Graphic Design III (3)

Six hours.
Prerequisite: Grade of C (2.0) or better in Art 443. Proof of completion of prerequisite required: Copy of transcript.

Strategy and problem solving of professional illustration as related to graphic design; individual conceptual and contextual exploration. Maximum credit six units.

## ART 544. Emerging Technologies in Multimedia (3) II

Six hours.
Prerequisite: Grade of C (2.0) or better in Art 448.
Advanced design studies in emerging electronic communications, including cyberstudios, Internet and multimedia. Exploration in collaborative, interdisciplinary, and international projects. Maximum credit six units with consent of instructor.

## ART 545. Design Studio (3) I, II

Six hours.
Prerequisite: Grade of $C$ (2.0) or better in two of the following: Art 441, 442, 450, 454, 541, and portfolio review. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, motion graphics, and web design software consistent with current industry standards. Proof of completion of prerequisites required: Copy of transcript.

Solutions to design problems for clients in a studio environment including business procedures and production management. Development of a professional level portfolio. Maximum credit six units with consent of instructor. Students may not re-enroll in this course after earning six units of C or higher. Copy of transcript required. (Formerly numbered Art 542 entitled Design Studio taken before 2003-04 catalog.)

## ART 547. Environmental Theory (3) II

Prerequisite: Art 247 or 347.
Survey of alternative solutions to the problem of design of the physical environment.

## ART 552. Interior Design IV (3) I

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.

## ART 553. Interior Design V (3) 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.
ART 557. Art of the Nineteenth Century (3)
Prerequisite: Art 259.
Development of painting, sculpture, and architecture from the French Revolution to 1900.

## ART 558. Twentieth Century European Art to 1945

Prerequisite: Art 259.
Major developments in the visual arts and art criticism from 1880 to 1945 (Post-Impressionism through Surrealism).

## ART 559. Twentieth Century European and American Art Since 1945 <br> (3) I, II

Prerequisite: Art 259. Recommended: Art 558.
Major developments in the visual arts and art criticism since 1945.

## ART 560. History of American Art (

Prerequisite: Art 259.
Development of painting, sculpture, and architecture from the Native American art and Colonial Period to the present.

## ART 561. Art of Pre-Hispanic America (3)

Prerequisite: Art 259.
Art of ancient Meso-America, Central America, Caribbean, and South America from earliest times until contact with Europe.

## ART 562. Art of Latin America (3)

Prerequisite: Art 259.
Art and architecture of Latin America from the colonial period to the present. Field trips included.

## ART 564. Art of China (3) II

Prerequisite: Art 258 or 259 or 263.
History of Chinese art from prehistoric times through the Ching Dynasty.

## ART 565. Art of Japan (3) I

Prerequisite: Art 258 or 259 or 263.
History of Japanese art from prehistoric times to the Meiji Restoration.

## ART 566. History of Japanese Painting Tenth to Twentieth Centuries (3) II

Prerequisite: Art 258 or 259 or 263.
History of Japanese painting from tenth to twentieth centuries, emphasizing art from three social groups: aristocrats, warriors, and merchants. Analysis of motifs, iconography, and styles of art schools developed during these periods, reinforced by social history.

## ART 567. Art of the Ancient Near East (3) <br> Prerequisite: Art 258.

Development of painting, sculpture, and architecture of Mesopotamia, Anatolia, the Levant, Ancient Persia, and Egypt from prehistoric times to the first century B.C.

## ART 568. Art of Crete, Mycenae, Greece, and Rome

Prerequisite: Art 258.
Development of painting, sculpture, architecture, and crafts from prehistoric times to the fifth century A.D.

## ART 569. Art of Sub-Saharan Africa (3)

Prerequisite: Art 158 or 258 or 259 or 263.
Form and content of the art of Sub-Saharan Africa viewed within its cultural context.

## ART 570. Art of the Pacific Islands (3)

Prerequisite: Art 158 or 258 or 259 or 263.
Visual arts of the Pacific Islands; recognition of styles and object types and their historical, social, and cultural contexts.

## ART 573A. Italian Art of the Fourteenth and Fifteenth

 CenturiesPrerequisite: Art 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.

## ART 573B. Italian Art in the Sixteenth Century

(3)

Prerequisite: Art 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.

## ART 575. European Art from 1600 to 1750 (3) <br> Prerequisite: Art 259.

Architecture, sculpture, and painting of the Baroque and Rococo periods.

## ART 577. History of Architecture (3)

Prerequisites: Art 258 and 259.
Architecture from primitive times to the present.
ART 578. Seminar in History of Museums and Exhibitions (3) I
Prerequisite: At least one course selected from Art 557, 558, 559, or 560 .

Origin, history, and function of the museum. Theories of collecting, museums, and construction of knowledge. Role of elites in formation and construction of museums, controversial exhibitions, exhibitionary practices, and globalism.

## ART 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.
ART 593. History and Methodology of Art History (3) II
Prerequisite: Twelve units of upper division art history.
Readings and discussions on the historiography of art and on modern methodologies for art historical research.
ART 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 

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## Faculty

Emeritus: Madhavan, Weiner
Interim Chair: Wong
Assistant Professor: Cai

## Lecturer: Wittenborn

Associated Faculty: Abalahin (History), Cheng (Speech, Language, and Hearing Sciences), Chin (English and Comparative Literature), Choi (Linguistics), Ghosh (Women's Studies), Guang (Political Science), Gupta (Political Science), Hayakawa (Art), Higurashi (Japanese), Kitajima (Japanese), Le (History), Liu (Sociology), Maruyama (Art), Mclllwain (Public Administration and Urban Studies), Miyamoto (Japanese), Nakamura (Art), Pang (Teacher Education), Samraj (Linguistics), Timalsina (Religious Studies), Tran (Teacher Education), Varadarajan (Political Science), Wawrytko (Philosophy), Wong (Dean, College of Arts and Letters), Yu (Public Health), Zhang (Chinese)

## Offered by the Department of Asia Pacific 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

Three 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 Department of Asia Pacific Studies 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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."

A minor is not required with this major.
Preparation for the Major. Asian Studies 100, 101. (6 units)
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.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 33 upper division units in Asian Studies. At least six upper division units must be at the $500-\mathrm{level}$. Asian-content courses from other departments may be applied to the major with written approval of the undergraduate adviser.

In addition to courses in Asian Studies, the following courses may also be used to satisfy the Asian studies major: Art 564^, 565^, 566^, Chinese 450^, 451^, 496, 499; Comparative Literature 460^, 530^; Economics 465^; History 419, 420, 421, 422, 425, 543, 563, 564, 566, 567, 570; Japanese 421^, 496, 499; Philosophy 351; Political Science 362, 575^; Religious Studies 338, 339, 345, 580*, 581*, 582*, 583*, 596*; Sociology 555^; Women's Studies 331.

Master Plan. A master plan of the courses taken to fulfill the major must be approved by the Asian Studies undergraduate adviser and filed with the Office of Advising and Evaluations.

* Acceptable when of relevant content.
${ }^{\wedge}$ Indicates course with prerequisites not included in requirements listed above.


## Asian Studies Minor

The minor in Asian studies consists of a minimum of 21 units to include Asian Studies 100, 101; 12 upper division units in Asian Studies; plus an appropriate Asian language course, e.g., Chinese or Japanese.

At least six upper division units must be at the 500-level. Up to six units from other departments may be applied to the major with written approval of the undergraduate 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 twelve upper division units must be completed in residence at San Diego State University.

## Courses (ASIAN)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

ASIAN 100. State and Society in the Asia Pacific (3) [GE]
Social, political, and economic foundations of Asia Pacific societies. Emphasis on diversity of Asian cultures, their relationship with each other and within the global community.

## ASIAN 101. Asian Thought and Cultures (3) [GE]

Intellectual and cultural underpinnings of East, Southeast, South, and Central Asia, from ancient to present, by means of a comparative overview of philosophies, religions, literatures, architectural design, visual and performing arts, highlighting continuing influence of tradition in contemporary Asian societies.

## ASIAN 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 <br> (Intended for Undergraduates)

## ASIAN 300. Asia's Global Future (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Survey of contemporary Asia Pacific region and future prospects, politically, socially, and economically, as historically grounded in cultural and philosophical roots.

## ASIAN 303. Imperialism and Nationalism in the Asia Pacific (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Relationship between imperialism and rise of Asia Pacific nationstates in nineteenth and twentieth centuries with aim of understanding socio-political diversity of this region.

## ASIAN 310. Diasporan Communities of the Asia Pacific (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Diverse processes, economic, political, and cultural, that have shaped formation and continued growth of diasporan communities in Asia Pacific region. Historical origins and contemporary status of diasporan communities.

## ASIAN 458. Asian Traditions (3) [GE] 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.

## ASIAN 459. Modern Asian Cultures (3) [GE] 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 midnineteenth century.

## ASIAN 460. Contemporary Issues in Filipino-American

 Communities (3) [GE] I, IIPrerequisites: Upper division standing and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Current issues and changes in the Filipino-American communities since 1965. Topics include new Filipino immigration, socio-economic adaptation, family, culture, intergenerational gaps, labor, education, psychology, employment, race relations, community institutions, civil rights and social movements, health, business, and politics.

## ASIAN 471. Business Environment in the Asia Pacific (3)

Prerequisite: Asian Studies 261 for majors; consent of instructor for nonmajors.

Business environment in the Asia Pacific in terms of economic, political, legal, and cultural environment. Emphasis on major economies of the region, Japan, South Korea, and China. (Formerly numbered Asian Studies 330.)

## ASIAN 472. Economic Reforms in China (3)

China's economic reforms and their impact on civil society and political development in contemporary China.

## ASIAN 496. Experimental Topics (1-4)

Prerequisite: Six units of Asian-content courses.
Selected topics in Asian studies. May be repeated with new content. Maximum credit six units with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## ASIAN 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)

## ASIAN 506. War and Memory in the Asia Pacific (3)

Historiography of the Pacific War and problems associated with historical evidence, memory, authentication, and political uses of history.

## ASIAN 530. Media and Popular Culture in the Asia Pacific (3)

Media and popular culture in Asia as instruments of social control, agencies of emancipation, expressions of global western power, and a means through which local identities are revitalized.

## ASIAN 531. Spiritual and Intellectual Traditions in the Contemporary Asia Pacific (3)

Major thinkers or schools of Asian thought in modern times, reflecting East/West encounters and influences of global importance. Spiritual and intellectual aspects, cultural context, social/political/economic dimensions of the thinker or school and impact beyond the original culture.
ASIAN 533. Minorities and Human Rights in the Asia Pacific (3)
Human rights regimes and status of minorities in parts of Asia Pacific. Examines notion of "universal rights" within and between countries of the region.

## ASIAN 570. Economic Dynamics of the Asia Pacific (3)

Sources and causes of regional economic growth. Role of the state, national growth models, enterprise forms and trade. Financial crisis of 1997-98 and subsequent developments to assess future economic prospects for the region.

## ASIAN 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.

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## Faculty

Emeritus: Angione, Daub, May, Nelson, Talbert, Young, A Chair: Shafter
Professors: Etzel (Director of Mt. Laguna Observatory), Shafter
Associate Professors: Sandquist, Welsh
Assistant Professors: Leonard, Orosz
Adjunct: Blanco, Hood, Miller, Ringwald, Teare, 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 that 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 extrasolar planets.

Much of this work is done at the Mount Laguna Observatory operated by the university. Modern astronomical detectors are employed that produce digital data, which lend themselves to computer analysis. Faculty and students also participate in space astrophysics projects. The department has excellent computer facilities at the observatory and on-campus.

Graduates with a bachelor's degree are trained in the application of the scientific method to the realm of astronomy and astrophysics, which requires a good foundation of understanding of physics and mathematics. Additionally, our students obtain useful skills in computing applications and in the use of modern electronic instrumentation. Many of our graduates find employment in industry, with astronomical observatories, or with government agencies or government contractors. These jobs support continuing research and include telescope operators, instrument makers, opticians, electronic technicians, programmers, image analysts, and laboratory technicians. Some of our graduates pursue advanced degrees.

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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

# Astronomy 

In the College of Sciences

## Astronomy Major

## With the B.A. Degree in Liberal Arts and Sciences (Major Code: 19111)

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 201; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, 197L. (27 units)

Recommended: Chemistry 200, Computer Science 106 or 107.
Language Requirement. Competency (equivalent to that which is normally attained through three consecutive semesters of college study) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units in astronomy and physics to include Astronomy 320, 350, 440, 450; Mathematics 342A; Physics 350, 354; and six units selected with the approval of the astronomy undergraduate adviser. Recommended: Physics 360, 400A, 406, 410.

## 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 201; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, 197L. (27 units)

Recommended: Chemistry 200, Computer Science 106 or 107.
Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units in astronomy and physics to include Astronomy 320, 350, 440, 450, 498A, 498B; Physics 350, 354, 360, 400A; and nine units selected from Physics 311, 400B, 406, 410.

Minor in Mathematics. All candidates for the B.S. degree in astronomy must complete a minor in mathematics, to include Mathematics 342A, 342B, and three additional upper division units of electives in mathematics. Recommended: Mathematics 541; Statistics 551A.

## Astronomy Minor

The minor in astronomy consists of a minimum of 15 units to include Astronomy 201 and 12 upper division units selected from Astronomy 301, 310, $320^{+}, 340^{+}, 350^{+}, 440^{+}, 450^{+}$.

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 in residence at San Diego State University.

+ Additional prerequisites required.


## Courses (ASTR)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## ASTR 101. Principles of Astronomy (3) [GE] I, II, S

Discover the universe: planets, stars, galaxies, and our place in the cosmos; the Big Bang; how stars shine; comets, meteors, nebulae, the Milky Way; black holes and other exotic objects. Not open to students with credit in Astronomy 201.

## ASTR 109. Astronomy Laboratory (1) [GE] I, II, S

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Astronomy 101 or 201.

Demonstration of astronomical principles through observations with astronomical instruments and analysis of astronomical data. A nighttime field trip to Mount Laguna Observatory is required.
ASTR 201. Astronomy for Science Majors (3) [GE]
Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.

Directed toward students with a strong interest in science and mathematics. Understanding the night sky, introduction to the solar system, star formation and evolution, extrasolar planets, nature of the Milky Way and other galaxies, origin and fate of the universe. Students with credit in Astronomy 101 and 201 will receive a total of three units of credit toward graduation.

## ASTR 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)ASTR 301. Cosmology and Gravitational Collapse (3) [GE]
Prerequisite: Completion of the General Education requirement in Foundations II. A.1. Physical Sciences.

Einstein's theory of general relativity applied to problems of gravitational collapse (stellar evolution, neutron stars, black holes) and cosmology (origin and evolution of the universe).

## ASTR 310. Astrobiology and the Search for Extraterrestrial

 Life (3) [GE] I, IIPrerequisites: Completion of the General Education requirement in Foundations II.A.1. Physical Sciences or II.A.2. Life Sciences.

Extraterrestrial life in our solar system and other planetary systems; formation of stars and planets; UFOs and SETI; origin and evoIution of life on earth; life in extreme environments; cosmology and structure of universe.

## ASTR 320. Solar System Astronomy (3) II

Prerequisites: Astronomy 201 and Physics 197, 197L.
Structures of the planets; their surfaces, atmospheres, and satellite systems; asteroids, comets, and meteoroids. The Sun, its structure, energy production, and influence in the solar system. Life in the solar system.

## ASTR 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 celestial mechanics.

## ASTR 350. Astronomical Techniques (3) II

Prerequisite: Astronomy 201.
Astronomical observation and optics. Data acquisition and reduction for modern astronomical instrumentation including photometry, direct imaging, and spectroscopy. Techniques for obtaining precise measurements and determining measurement uncertainties.
ASTR 440. Astrophysics of Stars (3) I
Prerequisites: Credit or concurrent registration in Mathematics 342A and Physics 354.

Radiative transfer theory, atmospheres of stars and the emergent spectrum, interior structure and evolution of stars, stellar pulsations.

## ASTR 450. Astrophysics of Star Systems (3) II

Prerequisites: Credit or concurrent registration in Mathematics 342A and Physics 354.

Applications of physics in study of star clusters, the interstellar medium and galactic structure, galaxies, and cosmology.

## ASTR 496. Experimental Topics (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.

## ASTR 498A. Senior Project (1) I, II

Prerequisite: A students' academic program must demonstrate that they are on track to graduate within one academic year.

Selection and design of individual projects.

## ASTR 498B. Senior Project (2) I, II

Six hours of laboratory.
Prerequisite: Astronomy 498A.
Individual research project culminating in a final written report.
ASTR 499. Special Study (1-3) I, II
Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSE <br> (Also Acceptable for Advanced Degrees)

## ASTR 596. Advanced Topics in Astronomy (2 or 3) I, II

Prerequisite: Consent of instructor.
Selected topics in 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.

OFFICE: Life Sciences 104
TELEPHONE: 619-594-6767
UNDERGRADUATE ADVISING OFFICE: Life Sciences 135
TELEPHONE: 619-594-6442
FAX: 619-594-5676
http://www.bio.sdsu.edu

## Faculty

Emeritus: Alexander, Alfred, Atkins, Avila, Barnett, Baxter, Bohnsack, Breindl, Carmichael, Carpenter, Chen, Clark, Cohn, Collier, B., Collier, G., Cox, Davis, C., Davis, R., Dexter, Diehl, Dowler, Ebert, Etheridge, Fisher, Ford, Futch, Hanscom, Hazen, Hemmingsen, Huffman, Hunsaker, Johnson, A., Johnson, K., Kelly, Krekorian, Krisans, Kummerow, Monroe, Moore, Neel, Norland, Olson, Paolini, Parsons, Phelps, Phleger, Plymale, Ratty, Rinehart, Schapiro, Shepard, Taylor, Thwaites, Van Steenbergen, Wedberg, Wilson, Zedler, J., Zedler, P., Zyskind
Chair: Frey
Professors: Archibald, Bernstein, Berta, Bizzoco, Buono, Franklin, Frey, Glembotski, Harris, Hurlbert, Maloy, McClenaghan, McGuire, Oechel, Perrault, Pozos, Sabbadini, R., Segall, Simpson, Sussman, Tsoukas
Associate Professors: Anderson, Burns, Deutschman, Hedin, Reeder, Williams
Assistant Professors: Arenas-Mena, Bohonak, Edwards, Hentschel, Hovel, Kelley, Lewison, Lipson, Regan, Rohwer, Waters, Zeller
Lecturers: Garver, Gibbins, Martin, Sabbadini, G.

## 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 bioengineering.
Emphasis in cellular and molecular biology.
Emphasis in ecology.
Emphasis in evolution and systematics.
Emphasis in marine biology.
Emphasis in zoology.
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 clinical laboratory science and public health microbiology.
Program of study in biology in preparation for the single subject teaching credential in science.
Minor in biology.
Certificate in biotechnology.

## 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,

## Biology

## In the College of Sciences

ecology, molecular biology, microbiology, immunology, endocrinology, entomology, evolution, and systematics. Formal programs of study within the major include Emphases in Bioengineering, Cell and Molecular Biology, Ecology, Evolution and Systematics, Marine Biology, and Zoology. Special studies opportunities with SDSU faculty and scientists at cooperating institutions allow qualified students to gain research experience on an individual basis.

The department offers a specific program of courses to fulfill the state of California's science requirements for the Single Subject Teaching Credential in Biological Science. 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 Biotechnology Certificate. The purpose of this program is to prepare undergraduate and graduate students for employment in public and private organizations utilizing biotechnology.

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.

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 wellbeing 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 Clinical Laboratory

Science and Public Health Microbiology prepares students to become, after a postgraduate internship, licensed medical technologists or certified public health microbiologists.

## Impacted Programs

The biology and microbiology majors are impacted programs. To be admitted to the biology or microbiology major, students must meet the following criteria:
a. Complete with a minimum GPA of 2.70 and a grade of C or higher: Biology 201A, 201B, 215; Chemistry 200, 201, 231; Mathematics 121 and 122; and Physics 180A, 180B, 182A, and 182B. These courses cannot be taken for credit/no credit (Cr/NC);
b. Have a cumulative GPA of 2.60 or higher;
c. Students choosing an emphasis in bioengineering have a different set of courses to complete in the preparation for the major. To be admitted to the major, bioengineering students must complete Biology 201A, 201B; Chemistry 200, 201, 231; Mathematics 150, 151; Physics 195, 196, 197 with at least a C in each course; and have a cumulative GPA of 2.70 or higher. Students may not elect credit/no credit grading for coursework needed to satisfy preparation for the major requirements.
To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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 40 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.
Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

## 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 201A, 201B, 215; Chemistry 200, 201, and 231 or 232 and 232L; Mathematics 121 and 122; Physics 180A, 180B, 182A, 182B. (39 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$ and must be completed with a minimum GPA of 2.70 and a grade of C or higher in each class.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

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, 366, 366L, and Chemistry 365. Elective courses include all upper division biology courses numbered 350 and above, and all upper division chemistry courses (except Chemistry 300, 308, 361, 497, 499, 560A). A minimum of two elective courses must be biology laboratory courses, at least one of which must be an organismal level course selected from Biology 350, 460, 512, 514, 515, 520, 523, 524, 525, 526, 528, 530, 531, 535.

All courses not included above must have specific approval of the department.

All upper division transfer courses in biology will calculate in the major GPA but will not fulfill any major requirements without specific department approval. This approval must be filed with the Office of Advising and Evaluations.

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 Advising and Evaluations.

## Emphasis in Bioengineering

Preparation for the Major. Biology 201A, 201B; Chemistry 200, 201, and 231 or 232 and 232L; Electrical Engineering 203; Engineering Mechanics 200; Mechanical Engineering 101, 240; Mathematics 150, 151, 252; Physics 195, 196, 197. (54 units)

Prerequisite courses, listed in item c. of Impacted Programs, may not be taken $\mathrm{Cr} / \mathrm{NC}$ and must be completed with a minimum GPA of 2.70 and a grade of C or higher in each class.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 38 upper division units to include Biology 366, 366L and either Biology 350 or 590; Chemistry 365; Civil Engineering 301; Mathematics 342A; Mechanical Engineering 352, 490A*, 490B; 12 units selected from the following courses, at least six of which must be biology courses: Biology 497 and 499 or Mechanical Engineering 499 (maximum 3 units); Biology 350, 474, 555, 567; either 556 or 557, 560, 575 or 590; Chemistry 431; Electrical Engineering 303, 503; Exercise and Nutritional Sciences 306; Mechanical Engineering 310, 312, 540, 580. Approval of the Emphasis in Bioengineering adviser is required for credit in Biology 497, 499, and other courses not listed above to be included in the emphasis. This approval must be filed with the Office of Advising and Evaluations.

All upper division transfer courses in biology will calculate in the major GPA but will not fulfill any major requirements without specific department approval. This approval must be filed with the Office of Advising and Evaluations.

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 Advising and Evaluations.

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## Emphasis in Cellular and Molecular Biology

Preparation for the Major. Biology 201A, 201B, 215; Chemistry 200, 201, and 231 or 232 and 232L; Mathematics 121 and 122; Physics 180A, 180B, 182A, 182B. (39 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$ and must be completed with a minimum GPA of 2.70 and a grade of $C$ or higher in each class.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(\mathrm{W})$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Biology 350, 352, 354, 366, 366L, 567, Chemistry 365 and 467L, and at least 11 units of electives selected from Biology and Chemistry 496 and/or 596 (maximum 3 units), Biology 497 and 499 and/or Chemistry 498 (maximum 3 units), Biology 511, 521, 521L, 528, 549, 551, 554, 555, $556,557,568,570,575,576,584,485$ or $585,590,594,595$, and Chemistry 431. At least one course must be an organismal level course. Approval of the Emphasis in Cellular and Molecular Biology adviser is required for credit in Biology 497, Chemistry 498, Biology or Chemistry 496, 499, and 596 and other courses not listed above to be included in the emphasis. This approval must be filed with the Office of Advising and Evaluations.

Other than Biology 352, 354, 366, 366L and Chemistry 365, only one course in this emphasis may be used for credit in another emphasis offered by the department.

All upper division transfer courses in biology will calculate in the major GPA but will not fulfill any major requirements without specific department approval. This approval must be filed with the Office of Advising and Evaluations.

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 Advising and Evaluations.

## Emphasis in Ecology

Preparation for the Major. Biology 201A, 201B, 215; Chemistry 200, 201, and 231 or 232 and 232L; Mathematics 121 and 122; Physics 180A, 180B, 182A, 182B. A computer programming course (e.g. Computer Science 106 or 107) is recommended. (39 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$ and must be completed with a minimum GPA of 2.70 and a grade of C or higher in each class.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Biology 352, 354, 354L, 366, 366L, Chemistry 365, and at least 15 units of electives selected from Biology 496 and/or 596 (maximum 3 units), 497 and 499 (maximum 3 units), 508, 509, 512, 517, 526, 535, 537, $538,540,541,560,597 \mathrm{~A}$. At least one of the above electives must be a laboratory course. The remaining units must include an organismal level course selected from Biology 350, 460, 512, 515, 520, 523, 524, 525,526,528,530,531,535. Other electives include all biology courses numbered 350 and above (except Biology 452), and all upper division chemistry courses (except Chemistry 300, 308, 361, 497, 499, 560A). Approval of the Emphasis in Ecology adviser is required for credit in Biology 496, 497, 499, 596, and other courses not listed above to be included in the 15 units of ecology electives. This approval must be filed with the Office of Advising and Evaluations.

Other than Biology 352, 354, 366, 366L, and Chemistry 365, only one course in this emphasis may be used for credit in another emphasis offered by the department.

All upper division transfer courses in biology will calculate in the major GPA but will not fulfill any major requirements without specific
department approval. This approval must be filed with the Office of Advising and Evaluations.

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 Advising and Evaluations.

## Emphasis in Evolution and Systematics

Preparation for the Major. Biology 201A, 201B, 215; Chemistry 200, 201, and 231 or 232 and 232L; Mathematics 121 and 122; Physics 180A, 180B, 182A, 182B. (39 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$ and must be completed with a minimum GPA of 2.70 and a grade of C or higher in each class.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Biology 352, 354, 366, 366L, 509, Chemistry 365, and at least 12 units of electives selected from Biology 496 and/or 596 (maximum 3 units), 497 and 499 (maximum 3 units), 460, 508, 510, 511, 512, 515, 520, 521, 521L, 523, $524,525,526,528,530,531,568$. Two of the above electives must be laboratory courses, one of which must be an organismal level course selected from Biology $512,515,520,523,524,525,526,528,530,531$. Other electives include all biology courses numbered 350 and above (except Biology 452), and all upper division chemistry courses (except Chemistry 300, 308, 361, 497, 499, 560A). Approval of the Emphasis in Evolution and Systematics adviser is required for credit in Biology 496, 497, 499, 596, and other courses not listed above to be included in the 12 units of evolution and systematics electives. This approval must be filed with the Office of Advising and Evaluations.

Other than Biology 352, 354, 366, 366L, and Chemistry 365, only one course in this emphasis may be used for credit in another emphasis offered by the department.

All upper division transfer courses in biology will calculate in the major GPA but will not fulfill any major requirements without specific department approval. This approval must be filed with the Office of Advising and Evaluations.

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 Advising and Evaluations.

## Emphasis in Marine Biology

Preparation for the Major. Biology 201A, 201B, 215; Chemistry 200, 201, and 231 or 232 and 232L; Mathematics 121 and 122; Physics 180A, 180B, 182A, 182B. (39 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$ and must be completed with a minimum GPA of 2.70 and a grade of C or higher in each class.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Biology 352, 354, 366, 366L, Chemistry 365, and at least 15 units of electives selected from Biology 496 and/or 596 (maximum 3 units), 497 and 499 (maximum 3 units), 512, 514, 515,517, 520, 541. At least two of the above electives must be laboratory courses, at least one of which must be one of the organismal courses Biology 512, 514, 515, or 520. The remaining units must be selected from biology courses numbered 350 and above (except Biology 452), all upper division chemistry courses (except Chemistry 300, 308, 361, 497, 499, 560A), and may include three units selected from Economics 454, Geography 504, Geological Sciences 540,545. Approval of the Emphasis in Marine Biology adviser is required for credit in Biology 496, 497, 499, 596, and other courses not listed above to be included in the 15 units of
marine biology electives. This approval must be filed with the Office of Advising and Evaluations.

Other than Biology 352, 354, 366, 366L, and Chemistry 365, only one course in this emphasis may be used for credit in another emphasis offered by the department.

All upper division transfer courses in biology will calculate in the major GPA but will not fulfill any major requirements without specific department approval. This approval must be filed with the Office of Advising and Evaluations.

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 Advising and Evaluations.

## Emphasis in Zoology

Preparation for the Major. Biology 201A, 201B, 215; Chemistry 200, 201, and 231 or 232 and 232L; Mathematics 121 and 122; Physics 180A, 180B, 182A, 182B. (39 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$ and must be completed with a minimum GPA of 2.70 and a grade of $C$ or higher in each class.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Biology 352, 354, 366, 366L, Chemistry 365, and at least 15 units of electives selected from Biology 496 and/or 596 (maximum 3 units), 497 and 499 (maximum 3 units), and 515, 526 (invertebrate group), 512, 520, 523, 524, 525 (vertebrate group), 508, 509, 510, 511, 560, 576 (general zoology group). At least three units must be selected from each of the three groups. Two or more of the above electives must be laboratory courses, at least one of which must be an organismal level course selected from Biology 512, 515, 520, 523, 524, 525, 526. The remaining units must be selected from biology courses numbered 350 and above (except Biology 452), and all upper division chemistry courses (except Chemistry 300, 308, 361, 497, 499, 560A). Approval of the Emphasis in Zoology adviser is required for credit in Biology 496, 497, 499, 596, and other courses not listed above to be included in the 15 units of zoology electives. This approval must be filed with the Office of Advising and Evaluations.

All upper division transfer courses in biology will calculate in the major GPA but will not fulfill any major requirements without specific department approval. This approval must be filed with the Office of Advising and Evaluations.

Other than Biology 352, 354, 366, 366L, and Chemistry 365, 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 Advising and Evaluations.

## 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 201A, 201B, 215; Chemistry 200, 201, and 231 or 232 and 232L; Mathematics 121 and 122; Physics 180A, 180B, 182A, 182B. (39 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$ and must be completed with a minimum GPA of 2.70 and a grade of $C$ or higher in each class.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. It is recommended that students select French, German, or Russian to satisfy this requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 33 upper division units to include Biology 350, 352, 354, 366, 366L, 521 or 584, 521L, 549, 567, Chemistry 365 and 467L.

All courses not included above must have the prior approval of the Microbiology adviser and be filed with the Office of Advising and Evaluations.

All upper division transfer courses in biology will calculate in the major GPA but will not fulfill any major requirements without specific department approval. This approval must be filed with the Office of Advising and Evaluations.

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 Advising and Evaluations.

## Microbiology Major <br> With the B.S. Degree in Applied Arts and Sciences <br> (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 201A, 201B, 215; Chemistry 200, 201, and 231 or 232 and 232L; Mathematics 121 and 122; Physics 180A, 180B, 182A, 182B. (39 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$ and must be completed with a minimum GPA of 2.70 and a grade of $C$ or higher in each class.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(W)$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Biology 350, 352, 354, 366, 366L, 521 or 584, 521L, 549, 567, Chemistry 365, and at least four units of electives selected from Biology and Chemistry 496 and 596 (maximum 3 units), Biology 497 and 499 (maximum 3 units), Biology 521, 528, 551, 554, 555, 556, 557, 584, 485 or 585, 590, 595, Chemistry 431, 467L. Approval of the Microbiology adviser is required for credit in Biology 496, 497 and 499, 596, and other courses not listed above to be included in the electives. This approval must be filed with the Office of Advising and Evaluations.

All upper division transfer courses in biology will calculate in the major GPA but will not fulfill any major requirements without specific department approval. This approval must be filed with the Office of Advising and Evaluations.

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 Advising and Evaluations.

## Emphasis in Clinical Laboratory Science and Public Health Microbiology

The emphasis in clinical laboratory science and public health microbiology is a program of required and elective courses which prepares students for the Public Health Microbiologist and Clinical Laboratory Scientist academic certification and licensing examinations.

Preparation for the Major. Biology 201A, 201B, 215; Chemistry 200, 201, and 231 or 232 and 232L; Mathematics 121 and 122; Physics 180A, 180B, 182A, 182B. (39 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$ and must be completed with a minimum GPA of 2.70 and a grade of C or higher in each class.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Biology 350, 352, 354, 366, 366L, 485 or 585, 521L, 549, 584, Chemistry 365. The remaining units to be selected from Biology 521, 528, 551, 554, $555,556,557,590,595$, Chemistry 431, 467L. To be included in this major courses not listed above must have the prior approval of the Microbiology adviser and be filed with the Office of Advising and Evaluations.

All upper division transfer courses in biology will calculate in the major GPA but will not fulfill any major requirements without specific department approval. This approval must be filed with the Office of Advising and Evaluations.

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 Advising and Evaluations.

## Biology Major

## In preparation for the Single Subject Teaching Credential in Science/Biological Sciences <br> With the B.S. Degree in Applied Arts and Sciences <br> (Major Code: 04011)

Students applying to the College of Education's graduate program for the Single Subject Teaching Credential in Science/Biological Sciences must be certified by this department for subject matter competency. This certification requires earning a B or better in Biology 452 and either (1) passing the required examinations (CSET), or (2) completing the subject matter preparation program described below.

Certification through the accomplishment of appropriate coursework requires (1) completion of the courses described under the General Biology Degree Requirements, B.S. degree (preparation for the major and major) including the following electives in the major: Biology 436, 452, 460 or 530 or 531,560 or 590 , and at least one course from Biology 515, 520, 523, 524, 525, or 526 (it is recommended that Biology 497 and 499 and Chemistry 467L be included if the major is being sought); (2) earning a B or better in Biology 452, (3) completing Astronomy 101, Geography 103, Geological Sciences 100 and 101, Oceanography 320. The Department of Biology credential adviser (LS-135) must be consulted for certification.

Please refer to the Teacher Education section of this catalog for other requirements and prerequisites for the credential program.

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 Advising and Evaluations.

All courses not included above must have the prior approval of the department and the substitution filed with the Office of Advising and Evaluations.

## Biology Minor

Biology 100 and 100L or 201A are prerequisites to the biology minor and do not count towards the units in the minor; some areas include additional prerequisites not counted towards the minor.

The minor in biology consists of a minimum of 16-22 units to include Biology 201B and at least 12 units of upper division courses selected from one of the areas below. At least one of the selected courses must be a biology laboratory course numbered 350 or above. A maximum of three units of Biology 497 and 499 may be included in
the minor with prior approval of the department. For courses requiring Biology 215 as a prerequisite, a college level course in statistics may be acceptable with the approval of the instructor. Basic chemistry, such as Chemistry 100, 105, or 200, is strongly recommended. Courses may be substituted for those in groupings below with approval of the biology adviser, and this approval must be filed with the Office of Advising and Evaluations.

## General Biology

Required: At least four courses with one course from each of the following areas: Evolution and Genetics (3 units): Biology 319, 321, or 352; Ecology and the Environment (3 units): Biology 315, 324, 326, 327, or 354; Human Biology (3 units): Biology 307, 321, or 336; Biology Laboratory (2-4 units): Biology 354L, 436, 515, 517, 523, 524, $525,526,528,530,531,535$. Note: Biology 321 can only be applied to one area. Requirements for all biology minors (above) apply.

## Biology for Physiological Psychology

Required: Biology 321, 336, 436, 570*. Elective: Biology 307. At least one college course in chemistry is strongly recommended to complement this minor. Requirements for all biology minors (above) apply.

* Additional prerequisites required.


## Cellular and Molecular Biology

Prerequisites: Biology 201A, Chemistry 200, 201, 231, 365. At least 12 units of the following electives: Biology 350, 352, 366, 366L, 499, 521, 521L, 549, 551, 554, 555, 567, 570, 575, 576, 584, 590, 594, 595 , and 485 or 585 , and 556 or 557 . Requirements for all biology minors (above) apply.

## Ecology

Required: Biology 354. Electives: Biology 315, 324, 327, 354L, $509,512,514,515,517,523,524,525,526,528,531,540,541$. Requirements for all biology minors (above) apply.

## Elementary Education

Required: Biology 315, 336, 436, at least two units of Biology 497 and 499, and a minimum of two units of electives selected from any upper division biology course. A college level course in chemistry is strongly recommended to complement this minor. Requirements for all biology minors (above) apply.

## Evolutionary Biology

Required: Biology 319 or 352 or 509. Electives: Biology 319, 352, $508,509,512,523,524,525,526,530,531$. Requirements for all biology minors (above) apply.

## Human Biology

Required: Biology 261 or 336 or 590. Electives: Biology 307, 321, 326, 336, 352, 436, and 590. Requirements for all biology minors (above) apply.

## Marine Biology

Required: Biology 514 or 515 or 520 . Electives: Biology 324, 512, $514,515,517,520,524$, and 541. Requirements for all biology minors (above) apply.

## Plant Biology

Required: Biology 460 or 530 or 531 or 535. Electives: Biology 326, 460, 530, 531, 535. Requirements for all biology minors (above) apply.

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.

## Secondary Education

Prerequisite: College level course in statistics. Required: Biology 354, 452. Electives (at least one course from each group): Biology 336, 560, 590; Biology 520, 524, 525. Basic courses in genetics, microbiology, and organic chemistry are recommended. (20-21 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.

## Biotechnology 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 Biology 551 and 552 with a grade of $B$ or better.

The certificate requires 13 prerequisite units - Biology 350, 366, 366L, Chemistry 365 and 24-28 certificate units including Biology 497, 567, and 499 (5 units as approved by the certificate adviser), 551, 594, Chemistry 467L, and three electives selected from Biology 521, 521L, $549,554,570,575,584,585,590$. Biology 551 and 552 must be taken at San Diego State University, either in residence or through Open University. Prerequisite and certificate courses may be utilized in the biology, chemistry, and microbiology majors and minors as appropriate.

Courses in the certificate may not be counted toward the minor.

## Courses (BIOL)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

BIOL 100. General Biology (3) [GE] I, II
Prerequisite recommended: Concurrent registration in Biology 100L.

A beginning course in biology stressing processes common to living organisms. Not open to students with credit in Biology 203 or biological sciences majors; see Biology 201A, 201B.

## BIOL 100L. General Biology Laboratory (1) [GE] 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 students with credit in Biology 203 or biological sciences majors; see Biology 201A, 201 B.

## BIOL 101. World of Animals (3) [GE]

Animal adaptation and diversity and their relationship to the development of evolutionary theory. Not open to biological sciences majors.
BIOL 101L. World of Animals Laboratory (1) [GE]
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.

BIOL 201A. Principles of Cell and Molecular Biology (4) I, II
Three lectures and three hours of laboratory.
Prerequisites: Chemistry 200 and satisfaction of the English Placement Test requirement.

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 202.)

## BIOL 201B. Principles of Organismal Biology (4) I, II

Three lectures and three hours of laboratory.
Prerequisite: Satisfaction of the English Placement Test requirement. Strongly recommended: Completion of Biology 201A.

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 201.)

BIOL 203. Understanding Biology (4) [GE]
Three lectures and two hours of laboratory.
Major conceptual principles of biology, with emphasis on evolution, inheritance, cellular life, biodiversity, ecology, and behavior. Evaluation of learning strategies and initial alternative conceptions about biology. Not open to students with credit in Biology 100 and 100L or to biological sciences majors.
BIOL 210. Fundamentals of Microbiology (4) I, II
Two lectures and six hours of laboratory.
Prerequisites: Biology 201A; or Biology 100, 212 and Chemistry 100 and either Biology 100L or Chemistry 130.

For nursing and foods and nutrition majors. Study of microorganisms of the environment, including disease-producing organisms, their actions and reactions. Not open to biological sciences majors; see Biology 350.
BIOL 212. Human Anatomy (4) I, II
Two lectures and six hours of laboratory.
Prerequisite: Biology 100 or 201A.
Gross and microscopic anatomy of organ system of human body.
BIOL 215. Biostatistics (3) [GE] I, II
Two lectures and three hours of laboratory.
Prerequisites: Credit or concurrent registration in Biology 201A or 201B and Mathematics 121 or 141.

Methods and experience in defining and solving quantitative problems in biology, including 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; Administration, Rehabilitation and Postsecondary Education 201; Civil Engineering 160; Economics 201; Political Science 201; Psychology 270; Sociology 201; Statistics 119, 250.

## BIOL 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.

## BIOL 246. Colloquium in Biomedical Sciences (1) II

Prerequisite: University level biology course.
Current biomedical research projects ranging from cell biology to behavioral research. Research paper required. Maximum credit two units.

## BIOL 247. Advanced Degree Programs in the Sciences: Application Strategies (1)

Two hours of activity.
Prerequisite: Junior or senior standing.
Instruction in preparing competitive applications to sciences' M.S. and Ph.D. degree programs to include development of the required personal statement. Introduction to sources of financial support, such as national fellowship programs, and development of interview skills and materials. Maximum credit one unit for any combination of Biology 247, 248, 249, 250A-250B-250C.

## BIOL 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. Maximum credit one unit for any combination of Biology 247, 248, 249, 250A-250B-250C.
BIOL 249. Career Choices in the Health Professions (1)
Career opportunities in allied health professions; trends in health care; discussion of medical ethics; practicing professionals will present about their fields and how best to prepare for careers in their area of health care. Maximum credit one unit for any combination of Biology 247, 248, 249, 250A-250B-250C.

## BIOL 250. Preprofessional Topics <br> (1) $\mathrm{Cr} / \mathrm{NC}$

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 credit one unit for any combination of Biology 247, 248, 249, 250A-250B-250C.

## BIOL 261. Human Physiology (4) I, II

Three lectures and three hours of laboratory.
Prerequisites: Chemistry 100; Biology 100 or 201A, 212; 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 or students with credit in Biology 336, 436, or 590 .

## BIOL 277. Medical Terminology (2)

Prerequisite: Biology 201B.
Words and word components used in medical and allied medical practice translated, investigated, and applied.

BIOL 291. Biology Laboratory (1) I, II
Prerequisites: Recommendation by department and consent of instructor.

Special course to allow makeup of program laboratory deficiencies. Student will be assigned to a laboratory section of the appropriate course.
A. Laboratory for Biology 201A. (Formerly numbered Biology 291B.)
B. Laboratory for Biology 201B. (Formerly numbered Biology 291A.)
C. Laboratory for Biology 215

BIOL 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.

## BIOL 299. Special Study (1-3)

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 <br> (Intended for Undergraduates)

Writing Requirement: Completion of the Graduation Writing Assessment Requirement or the eligibility to enroll in an upper division writing course is a prerequisite for all upper division biology courses numbered 450 and above.

## BIOL 307. Biology of Sex (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological science course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological science is required.

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 biological sciences majors.

## BIOL 315. Ecology and Human Impacts on the Environment (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning. If a biological science course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological science is required.

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.

## BIOL 319. Evolution (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Modern theory of organic evolution with emphasis on processes involved as they relate to past, present, and future evolution of mankind. Not applicable to biological sciences majors; see Biology 352.

## BIOL 321. Human Heredity (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Selected principles of human inheritance with emphasis on relationships to other fields of human studies. Not applicable to biology or microbiology majors; see Biology 352.

## BIOL 324. Life in the Sea (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Overview of complexity of marine life. Diverse interactions of organisms in the intertidal zone, over the continental shelves and in the open oceans. Current controversies concerning the marine biosphere. Not applicable to biological sciences majors.

## BIOL 326. Plants, Medicines, and Drugs (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Medicinal plants, toxic-poisonous plants, herbal medicines, psychoactive plants, preparation of medicines and mechanisms of action; current research results on medicinal plants and drugs used in diseases such as diabetes, cancer, and heart diseases. Not applicable to biological sciences majors.

## BIOL 327. Conservation of Wildlife (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Global ecosystems and their dynamics, with emphasis on sustainable human use and preservation and biodiversity. Not applicable to biological sciences majors.
BIOL 336. Principles of Human Physiology (3) [GE]
Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Systems of the human body, their interrelationships and control systems which regulate them. Not open to students with credit in a college course in human physiology. Not applicable to biological sciences majors.

## BIOL 340A. Preventive Dentistry Program (1-2) Cr/NC

Four hours of clinical and other activities per unit.
Prerequisites: Upper division standing and active predental file in the Preprofessional Health Advising Office.

Participation in clinic, dental observation, marketing activities and two field trips. Maximum credit four units. Not applicable to biological sciences majors.

## BIOL 340B. Preventive Dentistry Leaders (2-4)

Four hours of activity per unit.
Prerequisites: Biology 340A and consent of instructor.
Supervision of one component of Preventive Dentistry Program. Maximum credit four units. Not applicable to biological sciences majors.

BIOL 341. The Human Body (3) [GE]
Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences.

Survey of human body with emphasis on intricacy of design and integration of various organ systems. Not open to nursing, exercise and nutritional sciences, or biological sciences majors, or to students with credit in any college level human physiology or anatomy course.

## BIOL 344. Advanced Human Anatomy (2)

One lecture and three hours of laboratory.
Prerequisite: Biology 212 and consent of instructor.
Advanced topics in human anatomy with emphasis toward dissection of human cadavers. Dissection techniques, pathology, and special training in prosection. Not applicable to biological sciences majors.

## BIOL 348. Health Professions Internship (1-3)

Prerequisites: 3.0 overall GPA, completion of lower division writing competency requirement, and consent of instructor.

Internship in a health care setting; term paper required. Maximum credit three units. Not applicable to biological sciences majors.

## BIOL 350. General Microbiology (4) I, II

Two lectures and six hours of laboratory.
Prerequisites: Biology 201A, 201B, and 215; Chemistry 231.
Actions and reactions of microorganisms in response to their environment, both natural and as changed by other organisms, including man. Also includes an introduction to pathogens.

## BIOL 352. Genetics and Evolution (3) I,II

Prerequisites: Biology 201A, 201B, and 215.
Principles of transmission genetics, population genetics, and evoIution.

## BIOL 354. Ecology and the Environment (3) I, II <br> Prerequisites: Biology 201A, 201B, 215; and Mathematics 122 <br> Fundamental concepts in population, community, and ecosystem

 ecology.
## BIOL 354L. Experimental Ecology (2)

One hour of discussion and three hours of laboratory.
Prerequisite: Credit or concurrent registration in Biology 354.
Methods of research in ecology; approaches to analysis of populations, communities, and ecosystems.
BIOL 366. Biochemistry, Cell and Molecular Biology II (4) I,II
Prerequisite: Chemistry 365.
Concepts of modern integrated molecular biology, cell biology, and biochemistry.

## BIOL 366L. Biochemistry, Cell and Molecular Biology

 Laboratory I (2)Six hours of laboratory.
Prerequisite: Credit or concurrent registration in Biology 366.
Basic laboratory approaches in biochemistry, cell biology, and molecular biology.

## BIOL 436. Human Physiology Laboratory <br> One lecture and three hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 336 or 590.

Human physiology and rationale of current week's laboratory and experimental outcomes of previous week's laboratory. Not open to students with credit in Biology 261.

## BIOL 452. Science Concept Development and Integration

Two lectures and three hours of activity.
Prerequisite: Senior standing, or participation in the science 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.

BIOL 460. Economic Botany (3)
Two lectures and three hours of laboratory.
Prerequisites: Biology 201A and 201B.
Plants of agricultural, economic, and historical importance. Topics include basic plant morphology, anatomy, and taxonomy, plant genetics, agricultural breeding and propagation techniques, vegetables and fruits, spices and herbs, beverage plants, woods and plant fibers.
BIOL 461. Underwater Research Methods and Techniques (3)
Two lectures and three hours of laboratory.
Prerequisites: Biology 201B and Exercise and Nutritional Sciences 323 or Oceanography 306, and three upper division units in biology, Advanced Openwater or Scientific Scuba Diving Certification, diving skills proficiency evaluation, acceptable openwater diving equipment, medical examination, approval for scuba diving and waiver for scuba diving.

Preparation for scientific research underwater; scientific methods, techniques, operations and specialized equipment; scientific diver training and certification requirements; diving procedures and regulations; diving equipment; diving physiology hyperbaric conditions, fitness, practical diving skills, safety and emergency procedures.

## BIOL 474. Histology (4)

Two lectures and six hours of laboratory.
Prerequisite: Biology 201B. Recommended: Biology 212.
Descriptive microscopic anatomy of cells, tissues and organs of mammals with special emphasis on humans.
BIOL 485. Principles of Immunology (3)
Prerequisites: Biology 201A, Chemistry 365, credit or concurrent registration in Biology 366.

Basic areas of immunology to include inflammation, generation of immune response, antibody production, lymphocyte development and function, hypersensitivities and AIDS, major histocompatibility complex and cytokines. Designed to give a basic background in the immune system.

## BIOL 490. Undergraduate Honors Research (3)

Prerequisites: Upper division standing with GPA of at least 3.20, four units of Biology 499, and approval of honors research program coordinator.

Experience in designing and carrying out independent research in a laboratory setting plus a written record of experimental design and results in the form of an honors research thesis to be presented at an undergraduate research forum and/or defended before a committee. Does not satisfy laboratory requirement in major. Maximum credit six units.

## BIOL 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.

## BIOL 497. Undergraduate Research (1-3) I, II, S

Fifty hours of research per unit.
Prerequisites: Upper division status in good standing and consent of instructor.

Individual research project, supervised by faculty. Research course with research paper or other presentation of results. Maximum credit six units applicable to general biology major, three units to microbiology major, for any combination of Biology 497 and 499.
BIOL 499. Special Study (1-3) I, II, S
Fifty hours of activity per unit.
Prerequisites: Upper division status in good standing and consent of instructor.

Individual study, internship, other supervised laboratory or field project or experience. Credit involves 50 hour activity per unit per semester and a report. Maximum credit six units applicable to general biology major, three units applicable to microbiology major, for any combination of Biology 497 and 499.

# UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees) <br> Writing Requirement: Completion of the Graduation Writing Assessment Requirement or the eligibility to enroll in an upper division writing course is a prerequisite for all upper division biology courses numbered 450 and above. 

## BIOL 508. Coevolution (3)

Prerequisites: Biology 352 and 354 .
Coevolution in interspecific interactions, like herbivory, predation, parasitism, competition, pollination, and mimicry.

## BIOL 509. Evolutionary Biology (3)

Two lectures and two hours of activity.
Prerequisite: Biology 352.
Evolutionary biology including genetics of populations, speciation, systematic biology, adaptation, role of development in evolution, evoIution of behavior, and comparative biology. Evolutionary biology as the central organizing principle of biology.

## BIOL 510. Molecular Evolution (3)

Prerequisites: Biology 352 and 366 or graduate standing.
Molecular evolution including concepts of homology and convergence, the nearly neutral theory of evolution, evolution of new protein function, detecting selection, multi-gene family evolution and evolutionary genomics.
BIOL 511. Evolution of Development (3)
Prerequisites: Biology 352 and 366.
Dynamic relationship between regulatory functions that control development and the evolutionary process, and vice versa, illustrated with evidence derived from developmental, phylogenetic, paleontological, computational, and ecological research. Emphasis on genomic regulatory networks of transcriptional regulatory elements and cell-signaling pathways.

## BIOL 512. Evolution and Ecology of Marine Mammals

Two lectures and three hours of laboratory.
Prerequisites: Biology 352 and 354 .
Biology of marine mammals including pinniped, cetacean and sirenian evolution, diet and foraging strategies, social organization, reproductive strategies, echolocation, diving physiology, and conservation.

## BIOL 514. Biology of the Algae (4)

Three lectures and three hours of laboratory.
Prerequisites: Biology 201B and six units of upper division coursework in the major.

Evolution, life histories, morphology, physiology, and ecology of micro and macro algae, with attention to both marine and freshwater taxa, and of sea-grasses.

## BIOL 515. Marine Invertebrate Biology (4)

Two lectures and six hours of laboratory.
Prerequisite: Biology 201B. Strongly recommended: Completion of three to six upper division units in the major.

Structure and function, ecology, behavior, physiology and phyletic relationships of marine invertebrate animals.

## BIOL 517. Marine Ecology (4)

Two lectures and six hours of laboratory.
Prerequisite: Biology 354.
Ecological concepts as applied to pelagic and benthic marine organisms and their environment. Field and laboratory experience in oceanographic techniques, particularly the coastal environment.

## BIOL 520. Ichthyology (4)

Three lectures and three hours of laboratory.
Prerequisite: Biology 201B. Strongly recommended: Completion of three to six upper division units in the major.

Identification, systematics, evolution, structure, physiology, behavior and ecology of fishes.

## BIOL 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.
BIOL 521L. Advanced Microbiology Laboratory (3)
One lecture and six hours of laboratory.
Prerequisites: Biology 350, 366, 366L, and credit or concurrent registration in Biology 521 or 584. Strongly recommended: Credit or concurrent registration in an upper division writing course.

Procedures and methods for isolation, characterization and identification of prokaryotes from soil, water and humans; includes both pathogenic and non-pathogenic prokaryotes.

## BIOL 523. Herpetology (4)

Two lectures and six hours of laboratory.
Prerequisite: Biology 201B. Recommended: Biology 352.
Evolution, systematics, distribution, and ecology of amphibians and reptiles of the world.

## BIOL 524. Ornithology (4)

Two lectures, six hours of laboratory or field excursions, and a field project.

Prerequisite: Biology 201B. Strongly recommended: Completion of three to six upper division units in the major.

Study and identification of birds, especially those of the Pacific Coast and the San Diego region.
BIOL 525. Mammalogy (4)
Two lectures and six hours of laboratory.
Prerequisite: Biology 201B. Strongly recommended: Completion of three to six upper division units in the major.

Evolution, systematics, distribution and ecology of mammals of the world.

## BIOL 526. Terrestrial Arthropod Biology

Two lectures and six hours of laboratory.
Prerequisite: Biology 201B. Strongly recommended: Biology 352 and completion of three to six upper division units in the major.

Structure, function, behavior, ecology, evolution, and relationships of major groups of terrestrial arthropods, including insects, arachnids, and myriapods. Identification and natural history of southern California diversity.

## BIOL 528. Microbial Ecology (3)

Two lectures and three hours of laboratory.
Prerequisites: Biology 201A and 201B. Recommended: Biology 350 and 354 .

Roles of microorganisms in soil, aquatic and marine ecosystems, microbial adaptations to the environment, and interactions within microbial communities and between microbes and multicellular organisms. Laboratory techniques to isolate and study microbes.

## BIOL 530. Plant Systematics (4)

Two lectures and six hours of laboratory, field trips.
Prerequisite: Biology 201B. Strongly recommended: Completion of three to six upper division units in the major.

Plant description, identification, classification, and nomenclature with emphasis on evolutionary patterns, interdisciplinary data acquisition, and phylogenetic analysis.

## BIOL 531. Taxonomy of California Plants

(4)

Two lectures and six hours of laboratory.
Prerequisites: Biology 201A and 201B.
Fundamentals of plant taxonomy with emphasis on identification of plants native and naturalized to California. Plant collecting techniques. Field trips are required.

BIOL 535. Plant Ecology (4)
Three lectures and three hours of laboratory.
Prerequisites: Biology 201A and 201B. Strongly recommended: Biology 354.

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.
BIOL 537. Population Modeling for Conservation
Two lectures and three hours of laboratory.
Prerequisite: Biology 354.
Applied population modeling in context of conservation. How mathematical models can be used to simulate population dynamics of single and multiple species and rank conservation management options.

## BIOL 538. Environmental Policy and Regulations (3)

Prerequisite: Biology 354
History of biological conservation and environmental laws; regulations governing biological resources; role of biologists; environmental impact analysis, operation of regulatory and resource agencies; biologists as expert witnesses; wetland protection and mitigation, state heritage programs, role of nongovernmental agencies.
BIOL 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.

## BIOL 541. Ecology of Fishes and Fisheries Biology <br> Two lectures and three hours of laboratory. <br> Prerequisite: Biology 354. Recommended: Biology 520. <br> Ecology of fishes, including environmental constraints, habitats, feeding, behavior, growth, reproduction, biotic interactions, population dynamics and assemblage structure. Fisheries biology concepts, including stock recruitment models, climates and fisheries, density dependence and population regulation, and populations dynamics theory.

## BIOL 549. Microbial Genetics and Physiology

Prerequisite: Biology 350 or 366.
Physiology of microbial growth, bacterial structure and function, genetics of bacteriophages and bacteria.

BIOL 551. Recombinant DNA (3)
Prerequisites: Biology 350, 366, 366L, Chemistry 365, and credit or concurrent registration in Biology 549 or 567.

Theory and practice of recombinant DNA techniques.
BIOL 554. Molecular Virology (3)
Prerequisites: Biology 366 and Chemistry 365.
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.
BIOL 555. Principles of Electron Microscopy (1)
Prerequisites: Biology 201B and Physics 180B.
Principles of scanning and transmission electron microscopy including theoretical basis of sample preparation.
BIOL 556. Scanning Electron Microscopy Laboratory (2)
Six hours of laboratory.
Prerequisite: Credit or concurrent registration in Biology 555.
Biological specimen preparation and operation of scanning electron microscope.

BIOL 557. Transmission Electron Microscopy Laboratory
One lecture and six hours of laboratory.
Prerequisite: Credit or concurrent registration in Biology 555.
Biological sample preparation and operation of transmission electron microscope.

BIOL 560. Animal Physiology (3)
Prerequisites: Biology 201A, 201B; Chemistry 365; Physics 180B, 182A, and 182B.

Physiology of vertebrate and invertebrate animals with emphasis on diversity of solutions to physiological problems and on functional integration of organ systems.

BIOL 561. Radiation Biology (3)
Prerequisites: Biology 201A and 201B; Physics 180B, 182A, and 182B. Recommended: Biology 366.

Principles underlying radiological reactions of ionizing radiations. Effects of ionizing radiations at the biochemical, cell, organ, and organism levels.

## BIOL 561L. Radiation Biology Laboratory

Six hours of laboratory.
Prerequisite: Credit or concurrent registration in Biology 561.
The laboratory determination of the effects of ionizing radiation on biological systems.

## BIOL 567. Advanced Biochemistry, Cellular, and Molecular Biology (4)

Prerequisites: Biology 366 and Chemistry 365.
Advanced concepts of cellular biology, molecular biology, and biochemistry. (Formerly numbered Biology 467.)
BIOL 568. Bioinformatics
Prerequisite: Biology 366.
Bioinformatics analysis methods and programming skills. Practical bioinformatic software for sequence analysis, bioinformatic algorithms and programming fundamentals.
BIOL 570. Neurobiology (3)
Prerequisite: Biology 366 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.
BIOL 575. Molecular Basis of Heart Disease (3)
Prerequisite: Biology 366 or 590.
Current literature on the molecular basis of disordered physiology leading to heart disease.
BIOL 576. Developmental Biology (3)
Prerequisite: Biology 366. Strongly recommended: Biology 567.
Fundamental processes of development from fertilized egg to organism. Emphasis on cellular and molecular mechanisms common to development of metazoan organisms.

## BIOL 584. Medical Microbiology (3)

Prerequisites: Biology 350 and 366.
Major bacterial and viral pathogens; molecular mechanisms of pathogenesis, microbial toxins and antimicrobial agents; immune response to microbial infections; biochemical and molecular diagnostics.

## BIOL 585. Cellular and Molecular Immunology (3)

Prerequisites: Biology 366. Recommended: Credit or concurrent registration in Biology 567 and Chemistry 467L.

Cellular and molecular aspects of the immune response. Genetics of immunoglobulins, major histocompatibility complex, Iymphocyte development and their manifestations on immune responsiveness, lymphokines immunopathologies including AIDS, and contemporary immunological techniques. Not open to students with credit in Biology 485.

## BIOL 590. Physiology of Human Systems

Three lectures and one hour of discussion.
Prerequisites: Chemistry 365, Physics 180B, 182B; or for the bioengineering emphasis: Physics 195, 196, 197. Recommended: Biology 366.

Human physiology presented at both cellular and organ system levels; neurophysiology, muscle physiology, cardiovascular physiology and respiration, kidney function, hormone function and reproduction. For students majoring in a natural science or pre-professional studies.

## BIOL 594. Biotechnology Research Rounds (2)

Prerequisites: Biology 366 and credit or concurrent registration in Biology 567.

Latest research methods in the biotechnology community. Speakers from local biotechnology companies and research institutes will discuss the power and limitations of current research methods being applied to develop new therapeutics. Evaluation of approaches, results, and utility of these technologies.

## BIOL 595. Computers in Biomedical Research (3)

Prerequisite: Biology 366 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).

## BIOL 596. Special Topics in Biology (1-4)

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.
BIOL 597A. Univariate Statistical Methods in Biology (3)
Two lectures and three hours of laboratory.
Prerequisite: Biology 350 or 352 or 354 or 366.
Application of univariate statistical techniques in biological sciences.

GRADUATE COURSES
Refer to the Graduate Bulletin.


# Business Administration 

## In the College of Business Administration

OFFICE: Business Administration 448
TELEPHONE: 619-594-5828
FAX: 619-594-7046

## Faculty

Faculty assigned to teach in Business Administration are drawn from departments in the College of Business Administration.

## The Majors

For majors, minors, additional programs and courses in the College of Business Administration, see listings under Accountancy, Finance, Information and Decision Systems, Management, and Marketing.

The Imperial Valley Campus offers a major in Business Administration with an Emphasis in Agribusiness. For course requirements consult the Imperial Valley Campus Bulletin.

## Business Honors Program

The Business Honors Program offers excellent upper division business students the opportunity to explore issues in our local, regional, and global business environments focusing on the social and ethical responsibility that business has to the community and society. Honors students will enroll in a one unit business honors seminar each semester. During their enrollment they will participate in activities to promote their academic and personal growth, documenting their work in a written portfolio.

Generally, students should apply to this program at the time of application to upper division business. Applicants must submit an essay with their application. Applicants must have a 3.6 cumulative GPA or good standing in the University Honors Program. Students not meeting these requirements may petition for admission to the program. Successful completion of the Business Honors Program will be recognized at graduation. Contact Dr. Carol Venable, School of Accountancy, for more information about this program.

## Impacted Program

All majors in the College of Business Administration are impacted. Before enrolling in any upper division courses in business administration, students must advance to an upper division business major and obtain a business major code. To be admitted to an upper division business major (accounting, finance, financial services, real estate, information systems, management, or marketing), students must meet the following criteria:
a. Complete with a grade of C or higher: Accountancy 201 and 202; Finance 240; Information and Decision Systems 180 and 290 (290 is not required for the accounting major); Economics 101 and 102; Mathematics 120 (or other approved calculus course); and either Statistics 119 or Economics 201. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 60 transferable semester units;
c. Have a cumulative GPA of 2.9;

Students who meet all requirements except the GPA may request to be placed on the waiting list. While all spaces are usually filled by eligible students, if there is room in the program after all the fully qualified students have been accommodated, students will be admitted from the waiting list in GPA order. Contact the Business Advising Center (BA-448), 619-594-5828, for more information.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## Business Administration Minor

(See also, minors in Accounting, Finance, Information Systems, Management, Marketing, and Real Estate.)

The minor in business administration provides a general overview of business for non-business majors. While it is open to qualified students from all majors (except majors in the College of Business Administration, Hospitality and Tourism Management, or International Business), it is particularly recommended for students whose career plans include self-employment or small business management. The minor in business administration is administered by the Business Advising Center (BA 448), 619-594-5828.

The minor in business administration consists of 21 to 23 units to include Accountancy 201; Finance 323; Information and Decision Systems 180; Management 350; Marketing 370; and six to eight units selected from Finance 300, 327, 328; Management 352, 450; Marketing 371, 373, 476.

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 in residence at San Diego State University. Students with a major in the College of Business Administration, Hospitality and Tourism Management, or in International Business may not complete a minor in the College of Business Administration.

Students must officially declare the minor before taking any upper division business courses. Students must meet the prerequisites for the minor in effect at the time that they declare the minor. The current prerequisites for admission to the business administration minor include completion of the following courses with a grade of C or better in each: Economics 101, 102 and a three unit course in statistics (Statistics 119 is recommended); completion of the General Education requirements in Communication and Critical Thinking; completion of an additional nine units in the department of the student's major, including at least six units of upper division courses. Students must also meet the GPA requirement in effect at the time that they declare the minor. Contact the Business Advising Center (BA448) for admissions criteria and procedures.

## Certificate in Business Administration

## (Imperial Valley Campus)

This certificate is designed primarily for persons who want to gain an increased understanding of essential principles through upper division business courses, and for students who decide to go on to pursue the B.S. degree with a major in either management, finance, accounting, marketing, information systems, or real estate at the San Diego campus. For those not seeking the B.S. degree it provides a program designed to give self-improvement opportunities for the purpose of securing employment, promotion or upward mobility on the job.

All students seeking admission to the program must have successfully completed 56 transferable lower division units with a grade point average of 2.0. This includes completion of the lower division preparation required for any business administration major, i.e., Accountancy 201, 202; Finance 240; Information and Decision Systems 180, 290; Economics 101 and 102; Economics 201 or Statistics 119, and Mathematics 120 (or other approved calculus course).

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 (B A)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## B A 100A. Exploration of Business I (1) Cr/NC

Prerequisite: Registration in the Faculty-Student Mentor Program. Selecting and preparing for business careers. Business departments, faculty, students, and alumni provide information on courses, skills needed, opportunities, and drawbacks of various occupations. Career services provides advice. Students complete skills/interest assessments that are explained by career services.

## B A 100B. Exploration of Business II (1) Cr/NC

Prerequisite: Registration in the Faculty-Student Mentor Program.
Continuation of exploration of business careers. Additional business departments and other campus services provide information on courses, skills needed, opportunities, and drawbacks of various occupations.

## UPPER DIVISION COURSES (Intended for Undergraduates)

## B A 300. Ethical Decision Making in Business (1)

Prerequisite: Approved upper division business major or another major approved by the College of Business Administration.

Theoretical concepts and dimensions of ethics in business decisions. Ethics of decision alternatives using different approaches and philosophies, with application of an integrative ethical decision model to cases from various business subdisciplines.

## B A 400. Business Honors Seminar (1) $\mathrm{Cr} / \mathrm{NC}$

Prerequisite: Admission to the College of Business Honors Program.

Current issues affecting local, national, and global business environments. Maximum credit four units.

## B A 404. Small Business Consulting (3)

Prerequisites: Approved upper division business major; Business Administration 300; Finance 323; Information and Decision Systems 301 or 302; Management 350; Marketing 370; and consent of instructor.

Counseling of existing small businesses. Application of principles from all fields of business administration. Maximum credit six units.

## B A 496. Selected Topics in Business Administration (1-4)

Prerequisite: Consent of department chair.
Selected areas of concern in business administration. 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.

GRADUATE COURSES Refer to the Graduate Bulletin.


## Chemistry

In the College of Sciences

## OFFICE: Geology/Mathematics/Computer Science 209

 TELEPHONE: 619-594-5595 / FAX: 619-594-4634E-MAIL: cheminfo@sciences.sdsu.edu http://www.sci.sdsu.edu/chemistry

## Accredited by the American Chemical Society.

## Faculty

Emeritus: Abbott, Bennett, Cobble, Grubbs, Hellberg, Isensee, Jensen, Jones, Joseph, Landis, Lebherz, Malik, Mathewson, O'Neal, Richardson, Ring, Stewart, Walba, Woodson
Chair: Carrano
Professors: Carrano, Grotjahn, Metzger, Roeder, Stumph, Tong
Associate Professors: Bergdahl, Chatfield, Cole, Cooksy, Pullman, Smith
Assistant Professors: Huxford, Liang, Love, McAlpine, van der Geer

## Offered by the Department of Chemistry and Biochemistry

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.
Teaching major in chemistry for the single subject teaching credential in science.
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 and Biochemistry 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, chemical physics, inorganic chemistry, organic chemistry, or physical chemistry.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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. (39 units) Recommended: Physics 197 and 197L.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(\mathrm{W})$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Chemistry 410A-410B, 417, 427, 431, 457, 520A-520B, 550, 560A, one unit of 498, and eight units of upper division electives in chemistry. Six of the eight 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 201B; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L. (43 units) Recommended: Physics 197 and 197L.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(W)$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Chemistry 410A-410B, 431, 457, 550, 560A, 567; four units selected from Chemistry 562, 563, 564; one unit of Chemistry 498; and the remaining units selected from Chemistry 496, 497, 498, and any 500-level chemistry course; Biology 350, 352, 549, 551, 561, 561L, 570, 585, 590, 595. The addition of Chemistry 417, 427, and 520A qualifies this program for ACS certification.

## 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. (39 units) Recommended: Physics 197 and 197L.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units in chemistry to include Chemistry 410A-410B, 417, 427, 431, 457, 520A, 550, 560A; one unit of Chemistry 498, and five units of electives selected from Chemistry 496, 498 , or any 500 -level course in chemistry.

## 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, 251; Biology 201A, 201B; Mathematics 150, 151, 252; and Physics 195, 195L, 196, 196L. (47 units) Recommended: Physics 197 and 197L.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

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 560A is recommended for all premedical students.

Minor. A minor in biology is expected for preprofessional students.

## Chemistry Major (Teaching Credential Only)

In preparation for the Single Subject Teaching Credential in Science/Chemistry

## With the B.A. Degree in Applied Arts and Sciences <br> (Major Code: 19051)

The chemistry major in preparation for the single subject teaching credential in science/chemistry has been submitted to the California Commission on Teacher Credentialing for approval.

Contact Dr. Phoebe Roeder for additional information.
One of the requirements for acceptance into the College of Education's postbaccalaureate credential program is to either pass the appropriate CSET examinations or complete an approved academic program. The single subject teaching credential in science preparation program described below satisfies the academic requirements for a student planning to teach integrated science and chemistry at the secondary level. Entrance into the postbaccalaureate credentialing program in part requires certification of subject matter competency by this department. This certification requires completion of the academic program with the required grades, submission of a satisfactory portfolio, and the recommendation of the department. Contact the subject matter preparation program adviser. In addition, all candidates for a Single Subject Teaching credential at San Diego State University must complete the requirements outlined in the catalog under Teacher Education or Policy Studies. Contact the School of Teacher Education or the Policy Studies in Language and Cross-Cultural Education Department for up-to-date information on prerequisites.

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." Candidates who wish to graduate with 122 units must complete one of two American Institutions courses at the upper division level or satisfy the California state and local government portion of American Institutions by passing the California Government examination available through the Student Testing, Assessment and Research Office.

A minor is not required for this major.
Preparation for the Major. Astronomy 109, 201; Biology 201A, 201B; Chemistry 200, 201, 231, 251; Communication 103; Mathematics 150, 151; Physics 180A, 180B, 182A, 182B and Mathematics 252 OR Physics 195, 195L, 196, 196L, 197, 197L; Teacher Education 211. (55 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 31 upper division units to include Chemistry 410A, 410B, 417, 431, 457, 497 (1 unit), 520A, 550, 560A; Geological Sciences 412; Natural Science 315.

## Additional Requirements for Subject Matter <br> Preparation Certification

Satisfactory Grades. At most one course with a C- or lower among the courses listed under Preparation for the Major, and at most one course with a C- or lower among the courses listed under the Major. If a course is repeated, the highest grade will count.

Formative Assessment. Completion of a satisfactory, preliminary portfolio two semesters prior to graduation. Contact the subject matter preparation adviser for information.

Summative Assessment. Completion of a satisfactory, final portfolio, and a positive recommendation from a committee consisting of the senior project supervisor, the Department of Chemistry and Biochemistry chair, and the subject matter preparation program adviser with input from the student's upper division laboratory instructors.

## 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 Advising and Evaluations.

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. (43 units)

Recommended: A course in computer programming.
Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 39 upper division units to include Chemistry 410A-410B, 417, 550; Mathematics 342A, 342B; Physics 311, 350, 400A, 410; six units selected from Chemistry 431, 457,510, 515, Physics 357, 360, 400B, Chemistry 538 or Physics 538; and Research Project: Chemistry 497 (3 units) or Chemistry 498 (3 units) or Physics 498A and 498B (3 units).

## Chemistry Minor

The following courses are prerequisite to the chemistry minor and do not count toward the 15 units required for the minor: Chemistry 200, 201. (10 units.)

The minor in chemistry consists of 15 units in chemistry to include Chemistry 231 and 251; and six units of upper division electives. Chemistry 410A-410B* are strongly recommended.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

[^13]NOTE: See the following for recommended sequence of courses for the B.S degrees and Certificate and Emphasis in Biochemistry.

## OUTLINE FORTHE B.S. DEGREE AND CERTIFICATE

|  | Units |  |  | Units |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1st | 2nd |  | 1st | 2nd |
| First year | Sem. | Sem. | Second year | Sem. | Sem. |
| Chemistry 200 | 5 | - | Physics 195, 195L | 4 | - |
| Chemistry 201 | - | 5 | Physics 196, 196L | - | 4 |
| Mathematics 150, 151 | 4 | 4 | Mathematics 252. | 4 | - |
| GE Composition | 3 | - |  | - | 4 |
| GE Intermediate Composition ............. | - | 3 | Chemistry 251. | - | 5 |
| GE Oral Communication. | - | 3 | GE Life Science | - | 3 |
| GE Humanities | 3 | - | Elective .......... | 1 | - |
|  |  |  | GE Social and Behavioral Science | 3 | - |
|  |  |  | GE Humanities | 3 | - |
|  | 15 | 15 |  | 15 | 16 |
|  | Units |  |  | Units |  |
|  | 1st | 2nd |  | 1st | 2nd |
| Third year | Sem. | Sem. | Fourth year | Sem. | Sem. |
| Chemistry 410A-410B | 4 | 3 | Chemistry 427 | - | 1 |
| Chemistry 417 | - | 2 | Chemistry 457 | 2 | - |
| Chemistry 431 | 4 | - | Chemistry 498 | 1 | - |
| Chemistry 560A | 3 | - | Chemistry 520A-520B | 3 | 3 |
| Chemistry Elective. | - | 3 | Chemistry 550 | 2 | - |
| GE Social and Behavioral Science....... | - | 3 | Chemistry Electives.................... | - | 5 |
| GE Humanities ................................. | 3 | 3 | *American Institutions .................. | 3 | 3 |
| Elective. | 1 | - | GE Explorations ........................ | 3 | 3 |
|  |  |  | Elective ................................. | 1 | - |
|  | 15 | 14 |  | 15 | 15 |

## OUTLINE FOR THE B.S. DEGREE WITH EMPHASIS IN BIOCHEMISTRY

|  | Units |  |  | Units |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1st | 2nd |  | 1st | 2nd |
| First year | Sem. | Sem. | Second year | Sem. | Sem. |
| Chemistry 200 | 5 | - | Physics 195, 195L | 4 | - |
| Chemistry 201 | - | 5 | Physics 196, 196L | - | 4 |
| Mathematics 150, 151 | 4 | 4 | Mathematics 252. | 4 | - |
| GE Composition | 3 | - | Chemistry 231. | - | 4 |
| GE Intermediate Composition | - | 3 | Chemistry 251. | - | 5 |
| GE Oral Communication.. | - | 3 | Biology 201B. | 4 | - |
| GE Humanities | 3 | - | GE Social and Behavioral Science | 3 | - |
|  |  |  | GE Humanities ......................... | - | 3 |
|  | 15 | 15 |  | 15 | 16 |
|  |  |  |  |  |  |
|  | 1st | 2nd |  | 1st | 2 d d |
| Third year | Sem. | Sem. | Fourth year | Sem. | Sem. |
| Chemistry 410A-410B | 4 | 3 | Chemistry 457 | 2 | - |
| Chemistry 431 | 4 | - | Chemistry 498 | - | 1 |
| Chemistry 560A | 3 | - | Chemistry 550 | 2 | - |
| Chemistry 562, 563, or 564 | - | 2 | Chemistry 562, 563, or 564 .......... | 2 | - |
| Chemistry 567 | - | 3 | Chemistry Electives.................... | 3 | 7 |
| GE Social and Behavioral Science....... | - | 3 | *American Institutions .................. | 3 | 3 |
| GE Humanities ................................. | 3 | 3 | GE Explorations ......................... | 3 | 3 |
| Elective........................................... | 1 | 1 |  |  |  |
|  | 15 | 15 |  | 15 | 14 |

[^14]
## Courses (СНем)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## CHEM 100. Introduction to General Chemistry with

 Laboratory (4) [GE] I, IIThree 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.

## CHEM 105. Preparation for General Chemistry <br> (4) I, II

Three lectures and three hours of laboratory.
Prerequisite: Elementary algebra. Algebra test will be given in first week of class. Students who do not earn a passing grade will be required to drop the course.

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.

## CHEM 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.

## CHEM 160. Introductory Biochemistry

(3)

Prerequisite: Chemistry 130.
Fundamental principles of the chemistry of living processes. This course intended primarily for majors in nursing, nutrition, and related fields.

CHEM 200. General Chemistry (5) I, II
Three lectures and six hours of laboratory.
Prerequisites: High school chemistry or a grade of $C$ or better in Chemistry 100 or 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.

CHEM 201. General Chemistry (5) I, II
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.

CHEM 202. General Chemistry for Engineers (4) I, II
Three lectures and three hours of laboratory.
Prerequisites: Two years of high school algebra. High school chemistry or a grade of C or better in Chemistry 100 or 105.

General principles of chemistry with emphasis on inorganic and physical chemistry and chemistry basics for engineers. Students with credit in Chemistry 100, 105 and 202 will receive a total of four units of credit toward graduation. Not open to students with credit in Chemistry 200. Restricted to engineering majors.

CHEM 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 one-year course. Not open to students with credit in Chemistry 232 or 232L.

CHEM 232. Organic Chemistry (3) I, II
Prerequisites: Chemistry 201 and consent of instructor.
Same course as Chemistry 231 without laboratory. Not open to students with credit in Chemistry 231.

CHEM 232L. Organic Chemistry Laboratory (1) I, II
Three hours of laboratory.
Prerequisites: Chemistry 201 and consent of instructor.
Properties and synthesis of organic compounds including methods of separation and purification techniques. Same course as laboratory portion of Chemistry 231. Not open to students with credit in Chemistry 231.

## CHEM 251. Analytical Chemistry (5) II

Three lectures and six hours of laboratory.
Prerequisites: Chemistry 201 and credit or concurrent registration in Mathematics 122 or 150.

Introduction to the theory and practice of analytical chemistry including gravimetric, volumetric, and instrumental methods.

## CHEM 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.

## CHEM 299. Special Study (1-4)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

(Intended for Undergraduates)
CHEM 300. Mysteries and Molecules (3) [GE]
Prerequisites: Chemistry 100 or completion of General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning.

Techniques and case studies of mysteries solved by molecular analysis: chemical and DNA analysis of crime scenes, biochemical explanations of mysterious deaths and accidents, molecular hallmarks of forgery, chemical methods in crime deterrence, chemical causes of fires and structure failure. Not applicable to chemistry majors.

## CHEM 308. Chemistry as a Unifying Science (3) [GE]

Prerequisites: Biology 100 or 203; Geological Sciences 104 or Natural Science 100; Geological Sciences 412 or Natural Science 412.

Atomic-molecular theory of matter; use of concepts of chemistry to explain observable phenomena in everyday life, including physical properties and chemical changes; connections between chemistry and biology, earth science, and physical science; alternative conceptions about science. Capstone science course for liberal studies majors. Open only to liberal studies majors. Not applicable to chemistry majors.

## CHEM 361. Fundamentals of Biochemistry

(3)

Prerequisites: Chemistry 231 and 365.
The chemistry of intermediary metabolism and its regulation. Not open to students with credit in Chemistry 562 or 563. (Formerly numbered Chemistry 361B.)

CHEM 365. Biochemistry, Cell and Molecular Biology I (3)

## Prerequisites: Biology 201A and Chemistry 231.

Basic concepts of modern integrated biochemistry, cell and molecular biology. Not open to students with credit in Chemistry 361A or 560A. Applicable to chemistry major or minor only with approval from department.

## CHEM 368. Enzymes and Macromolecular Interactions (1)

Prerequisite: Credit or concurrent registration in Chemistry 365.
Enzymology of bisubstrate reactions, allosteric enzymes and biochemical control mechanisms, enzyme mechanisms, nucleic acid structure, replication, and function, sequencing, PCR, cellular protein synthesis, oligosaccharide synthesis. Not open to students with credit in Chemistry 361A or 560A. Applicable to chemistry major or minor only with approval from department.

CHEM 410A-410B. Physical Chemistry (4-3) I, II
410A: Three lectures and three hours of laboratory.
410B: Three lectures.
Prerequisites: Chemistry 231 and 251; Mathematics 252; Physics 195, 195L and 196, 196L. Recommended: 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.
CHEM 417. Advanced Physical Chemistry Laboratory (2) II
Six hours of laboratory.
Prerequisites: Chemistry 251, 410A, and credit or concurrent registration in Chemistry 410B.

Experimental physical chemistry. Emphasis on interpretation and statistical evaluation of instrument-derived results, record keeping, report writing, and individual initiative in observing results.
CHEM 427. Inorganic Chemistry Laboratory (1) II
Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Chemistry 520A.
Laboratory course designed to introduce students to techniques used in synthesis, characterization, and manipulation of inorganic compounds and materials.
CHEM 431. Organic Chemistry (4) I, II
Three lectures and three hours of laboratory.
Prerequisite: Chemistry 231.
Continuation of Chemistry 231. Not open to students with credit in Chemistry 432 and 432L.

CHEM 432. Organic Chemistry (3) I, II
Prerequisites: Chemistry 231 and consent of instructor.
Continuation of Chemistry 231. Same course as Chemistry 431 without laboratory. Not open to students with credit in Chemistry 431.
CHEM 432L. Organic Chemistry Laboratory (1) I, II
Three hours of laboratory.
Prerequisites: Chemistry 231 and consent of instructor.
Continuation of laboratory portion of Chemistry 231. Not open to students with credit in Chemistry 431.

## CHEM 457. Instrumental Methods of Chemical Analysis Laboratory (2) I

Six hours of laboratory.
Prerequisites: Chemistry 251, 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.

CHEM 467L. Biochemistry, Cell and Molecular Biology Laboratory (2) I, II
Six hours of laboratory.
Prerequisites: Biology 366, 366L, credit or concurrent registration in Biology 567. Recommended: Biology 350.

Intermediate laboratory approaches in biochemistry, cell biology and molecular biology. Not applicable to chemistry major or minor. Not open to students with credit in Biology 592.

## CHEM 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.
CHEM 497. Undergraduate Research (1-3) Cr/NC I, II, S
Prerequisites: Chemistry 231 and 251.
Individual laboratory investigation. Maximum credit six units.

## CHEM 498. Senior Project (1-3) I, II

Prerequisite: Three one-year courses in chemistry.
Individual literature and/or laboratory investigation and report on a problem. Maximum credit three units.
CHEM 499. Special Study (1-4) I, II
Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.
UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

## CHEM 510. Advanced Physical Chemistry (3)

Prerequisite: Chemistry 410B.
Problems in chemical thermodynamics, statistical mechanics, chemical kinetics, quantum chemistry and molecular structure and spectroscopy, with applications.

CHEM 515. Computational Chemistry (3)
Prerequisites: Chemistry 410A and 410B.
Overview of modern computational chemistry. Use of computational chemistry tools and their application to problems of chemical interest.
CHEM 520A-520B. Inorganic Chemistry (3-3) I, II
Prerequisite: Chemistry 410A. Chemistry 520A is prerequisite to 520B.

Nature of chemical bond and an advanced systematic study of representative and transition elements and their compounds.

## CHEM 531. Synthetic Organic Chemistry

(3)

Prerequisite: Chemistry 431
Modern methods, strategies, and mechanisms in advanced organic synthesis. Retrosynthetic analysis of and synthetic routes towards biologically important compounds.

## CHEM 537. Organic Qualitative Analysis

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.

CHEM 538. Polymer Science (3)
(Same course as Physics 538.)
Prerequisites: Chemistry 200 or 202; and Chemistry 410B or Physics 360 or Mechanical Engineering 350 or 352.

Structure, synthesis, physical properties, and utilities of polymers.
CHEM 550. Instrumental Methods of Chemical Analysis (2) I
Prerequisites: Chemistry 231 and credit or concurrent registration in Chemistry 410A; concurrent registration in Chemistry 457 for undergraduate students only. Chemical Physics majors can replace the Chemistry 457 corequisite with credit or concurrent registration in Physics 311.

Theory and application of those instrumental methods of chemical separation and analysis most frequently used in all subdisciplines of chemistry.

## CHEM 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.

## CHEM 560A. General Biochemistry (3) I, II

Prerequisites: Chemistry 231, credit or concurrent registration in Chemistry 410A and 431.

The structure, function, metabolism, and thermodynamic relationships of chemical entities in living systems. Not open to students with credit in Chemistry 365.

## CHEM 562. Intermediary Metabolism (2)

Prerequisites: Chemistry 560A or Chemistry 365 and 368.
Catabolic and biosynthetic pathways of carbohydrate, lipid, amino acid, and nucleotide metabolism; TCA cycle, mitochondrial and chloroplast electron transport chains, ATP generation and their interactions and control. Not open to students with credit in Chemistry 361

CHEM 563. Nucleic Acid Function and Protein Synthesis (2)
Prerequisites: Chemistry 560A or Chemistry 365 and 368.
DNA replication, RNA transcription, RNA processing, and protein translation, including chemical mechanisms of synthesis and cellular mechanisms of regulating gene expression; genomics, recombinant DNA, and DNA topology. Not open to students with credit in Chemistry 361.

## CHEM 564. Receptor Biochemistry and Protein Modification

(2)

Prerequisites: Chemistry 560A or Chemistry 365 and 368.
Biochemical study of receptors, second messengers, and cellular proteins that participate in extracellular and intracellular communication, with focus on protein structures, post-translational modifications, and biochemical mechanisms that regulate receptors and effector enzymes.

CHEM 567. Biochemistry Laboratory (3) II
One lecture and six hours of laboratory.
Prerequisite: Chemistry 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.
CHEM 571. Environmental Chemistry (3)
Prerequisites: Chemistry 231 and 251; consent of instructor for all other majors.

Fundamentals of chemistry applied to environmental problems. Chemistry of ecosystems; analysis of natural constituents and pollutants; sampling methods; transport of contaminants; regulations and public policy.

## CHEM 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.


# Chicana and Chicano Studies 

In the College of Arts and Letters

## OFFICE: Arts and Letters 348 <br> TELEPHONE: 619-594-6452

## Faculty

Emeritus: Nuñez, Villarino
Chair: Griswold del Castillo
Professors: Griswold del Castillo, Hicks, Ortiz
Associate Professors: de la Luz Ibarra, Del Castillo, Iglesias Prieto, Ojeda, Rodriguez

## Offered by the Department

Master of Arts degree in Chicana and Chicano studies.
Major in Chicana and Chicano studies with the B.A. degree in liberal arts and sciences.
Minor in Chicana and Chicano 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, Chicana and Chicano 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 Chicana and Chicano 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.

Chicana and Chicano studies majors may choose one of three areas: Humanities, which includes courses designed to increase the student's awareness of the regional diversity of Chicana and Chicano communities, as well as intellectual, aesthetic, literary, historical, ethical, and human values; 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; and Border Studies, which includes multidisciplinary courses focusing on the social, economic, and human dimensions of the U.S. Mexican border as it affects Mexican origin populations in the United States. 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 Chicana and Chicano 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.

Chicana and Chicano 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Chicana and Chicano 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 Chicana and Chicano studies courses can apply to the degree.

A minor is not required with this major.
Preparation for the Major. Chicana and Chicano Studies 100 or 150 and 110. (6 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Students are encouraged to satisfy this language requirement in Spanish. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 24 upper division units to include Chicana and Chicano Studies 301 and 21 units selected from one area of specialization: (social sciences) Chicana and Chicano Studies 303, 306, 320, 340, 350A-350B, 355, 480, 498; or (humanities) Chicana and Chicano Studies 310, 335, 375, 376, 380, 396W, 400; or (border studies) Chicana and Chicano Studies 306, 355, 375, 380, 498, Economics 565, History 551, Political Science 568. Up to six units, with appropriate content, can be applied to each area of specialization from Chicana and Chicano Studies 496, 499, and 596.

## Chicana and Chicano Studies Minor

The minor in Chicana and Chicano studies consists of a minimum of 18 units in Chicana and Chicano studies to include two courses selected from Chicana and Chicano Studies 100, 110, or 150; and 12 units of upper division courses selected from one area of specialization (social sciences) Chicana and Chicano Studies 301, 303, 306, 320, 340, 350A-350B, 355, 480, 498; or (humanities) Chicana and Chicano Studies 310, 335, 375, 376, 380, 396W, 400; or (border studies) Chicana and Chicano Studies 306, 355, 375, 380, 498, Economics 565, History 551, Political Science 568. Up to six units, with appropriate content, can be applied to each area of specialization from Chicana and Chicano 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 in residence 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 Chicana and Chicano Studies 355, Spanish 103, and six units selected from Chicana and Chicano Studies 306, 310, 375, 376, 380.

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 Communication 591; Geography 323; History 550, 551; Political Science 481, 555, 568; Social Work 350; Sociology 335, 350, 355.

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 in residence 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 Chicana and Chicano Studies.

Required courses: Chicana and Chicano Studies 355 and three units of an internship, either Chicana and Chicano Studies 498 or an internship from the student's major if it is carried out as a borderoriented 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: Chicana and Chicano Studies 375; Geography 496; History 551.

Political and Economic Systems: Chicana and Chicano Studies 306; Economics 458, 496, 565; Political Science 568.

Cultural and Social Institutions: Chicana and Chicano Studies 376; Education 451.

Special Problems/Human Services: Chicana and Chicano Studies 496, Border Research Topics.

## Courses (ccs)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## CCS 100. Chicana and Chicano Heritage (3) [GE]

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.
CCS 110. Introduction to Chicana and Chicano Studies (3)
Introduction to the culture and the civilization of the Mexican American. History; Mexican and US roots; the new identity. (Formerly numbered Mexican American Studies 110A.)

## CCS 111A. Oral Communication (3) [GE]

Training in the process of oral (speech) expression: addressing the barrio; formal delivery.

Chicana and Chicano Studies 111A is equivalent to Communication 103. Not open to students with credit in Africana Studies 140 or Communication 103 or 204.

## CCS 111B. Written Communication (3) [GE]

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 credit (Cr) in Rhetoric and Writing Studies 92A or 92B or 97.

Training for students from Mexican American backgrounds in the process of written expression. English grammar and composition; the essay, the term paper. Chicana and Chicano Studies 111B is equivalent to Rhetoric and Writing Studies 100. Not open to students with credit in Africana Studies 120 or English 100 or Linguistics 100 or General Studies 260A or Rhetoric and Writing Studies 100 or 101 or higher- numbered composition course.

## CCS 120A-120B. Chicana and Chicano Role in the American Political System (3-3) [AI]

Semester I: Relationship between Chicana and Chicano community and American political system. Semester II: The Chicana and Chicano in relation to city, county, and state institutions in California. This year-long course satisfies the graduation requirement in American Institutions.

## CCS 141A-141B. History of the United States (3-3) [AI]

(Selected sections of Chicana and Chicano Studies 141A offered as distance education.)

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-long course satisfies the graduation requirement in American Institutions.
CCS 150. Critical Issues in Chicana Studies (3)
Critical themes in Chicana feminist scholarship: power and resistance; work, family, and culture; cultural representations and presentations; social and biological reproduction.
CCS 200. Intermediate Expository Research and Writing (3) [GE]
Especially designed for bilingual/bicultural students.
Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements and Chicana and Chicano Studies 111B or Africana Studies 120 or English 100 or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

Intermediate composition. Practice in reading, writing, and critical thinking using interdisciplinary sources. Research skills using primary and secondary sources. Argumentative writing skills. Not open to students with credit in Africana Studies 200, English 200, General Studies 260D, Linguistics 200, or Rhetoric and Writing Studies 200.

## CCS 255. Introduction to Nahuatl (3)

Language of the Aztecs, Nahuatl vocabulary and grammar. Colonial and modern texts and translations. Cultural context of language. Relation of Nahuatl to Chicana and Chicano identity.

## CCS 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)

## CCS 301. Political Economy of the Chicano People (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Chicana and Chicano Studies 110.

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.

## CCS 303. Chicana and Chicano Community Studies (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Chicana and Chicano Studies 110.

Chicana and Chicano communities from a comparative perspective. Systematic inquiry into methods and issues in community studies. Contemporary social, institutional, and political affairs.

## CCS 306. Mexican Immigration <br> (3)

Immigration from Mexico in the context of US immigration history and policies. Comparative study of political, economic, and cultural factors. Undocumented immigration and current US law.

## CCS 310. Mexican and Chicano Music (3) [GE] I, II

(Selected sections offered as distance education.)
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for non-majors.

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.

## CCS 320. Chicana and Chicano Life Styles (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Social relations and cultural evolution in Chicana and Chicano community, female-male relationships, and family. Influence of Span-ish-Mexican feudal cultural heritage and US industrial-capitalist society. Comparative cross-cultural social science methodology.

## CCS 335. Chicana and Chicano Literature (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Ideas, forms, history of significant Chicana and Chicano prose, poetry and other literary genres.

## CCS 340. Mexican Women in Historical Perspective: PreColumbian to 1848 (3)

Prerequisites recommended: Chicana and Chicano Studies 111B and upper division standing.

US-Mexican history or Mexican women from PreColumbian 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.

CCS 350A-350B. Chicano History (3-3) [GE] 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.

## CCS 355. The United States-Mexico International Border (3) [GE] 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.

## CCS 375. US/Mexico Border History (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Recommended: Chicana and Chicano Studies 110.

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.

## CCS 376. Chicana and Chicano Culture and Thought (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors

Intellectual history of the Chicana and Chicano as a synthesis of different cultural traditions and perspectives. Philosophical concepts from pre-Cortesian times to the present.

CCS 380. US/Mexico Borderlands Folklore (3) [GE] I, II
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Recommended: Chicana and Chicano Studies 110

Border folklore; myths, rituals, legends, sayings, and songs of Chicanos and Mexicanos in the US.

## CCS 396W. Chicano Prose: Creative Writing (3)

Prerequisite: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. 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.

## CCS 400. Mexican Images in Film (3) [GE]

Prerequisites: Upper division standing and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Comparative study of images presented by Hollywood, Mexican and Chicano cinemas. Critical analysis and discussion of projected values. Comparison of themes in film and text

CCS 480. Chicanas and Chicanos and the Schools (3)
Prerequisite recommended: Chicana and Chicano Studies 110.
The Chicana and Chicano child's experience in the school system from preschool through high school with emphasis on social, intellectual and emotional growth and development.

CCS 496. Selected Topics in Chicana and Chicano Studies (1-3)
Selected topics in Chicana and Chicano 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.

## CCS 498. Internship in US-Mexico Border (3)

Nine to twelve hours per week plus four class meetings.
Prerequisites: Upper division standing, Chicana and Chicano 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.

## CCS 499. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

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

## CCS 554. United States-Mexico Transborder Populations and Social Change (3)

(Same course as Sociology 554.)
Prerequisite: Sociology 101. Recommended: Chicana and Chicano Studies 355 and/or Sociology 350.

Sociology of the population at the US-Mexico border region. Demographic dynamics and social change in border communities. International migration and transmigration. Transborder families and transnational families. Gender systems and women's reproductive health in border communities.

CCS 595. US/Mexico Border Field Experience (3)
Prerequisites: Six upper division units in Chicana and Chicano studies or graduate standing. Working knowledge of Spanish required.

Field Work in US-Mexico border area. Visits to border institutions in Tijuana and San Diego. Dynamics of postmodernity and globalization. Multidisciplinary and critical study of US-Mexico border through research and experience. Classes meet in US and Mexico.

## CCS 596. Topics in Chicana and Chicano Studies (1-3)

Prerequisite: Consent of instructor.
Advanced topics in Chicana and Chicano 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.

GRADUATE COURSES Refer to the Graduate Bulletin.


# Child and Family Development 

In the College of Professional Studies and Fine Arts

OFFICE: Professional Studies and Fine Arts 413
TELEPHONE: 619-594-5380
FAX: 619-594-5921
E-MAIL: troberts@mail.sdsu.edu

## Faculty

Emeritus: Cannon, Dorris, Deutsch, Hewes, Milne, Ross Chair: Roberts
Professors: Balkwell, Roberts
Associate Professor: Ritblatt
Assistant Professor: Hokoda
Lecturers: Booth, Gardner

## Offered by the Department

Master of Science degree in child development.
Major in child development with the B.S. degree in applied arts and sciences.
Minor in child development.
Certificate in family life education.

## The Major

The interdisciplinary major in child development draws from many fields of study, including biology, psychology, and sociology, and prepares students for a variety of professional specialties. Graduates with competencies in this major find positions in preschools, child care centers, schools, hospitals, clinics, residential institutions, counseling centers, mental health centers, social services and 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, the Associated Students' Campus Children's Center, and San Diego City Schools. All children's programs are mainstreamed and a wide range of special needs and at-risk populations are served.

The child development degree also provides a flexible curriculum base for continuation into graduate programs in child development or family relations. Majors may also continue graduate work in related fields such as marriage and family therapy; social work; 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.

## Impacted Program

The child development major is an impacted program. To be admitted to the child development major, students must meet the following criteria:
a. Complete with a grade of C or higher: Child and Family Development 135, 270, 270L (1 unit), 272, 275; Biology 100; Psychology 101; Sociology 101; and Psychology 270 and 271 (or Sociology 201). These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 60 transferable semester units;
c. Have a cumulative GPA of 2.40 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Child Development Major

## With the B.S. Degree in Applied Arts and Sciences

(Major Code: 08231)
All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.
Preparation for the Major. Child and Family Development 135, 270, 270L (1 unit), 272, 275; Biology 100; Psychology 101; Sociology 101; Psychology 270 and 271, or Sociology 201, or a three unit elementary statistics course. (25-26 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$. The minimum grade in each class is $C$ or higher.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 43 upper division units to include Child and Family Development 335, 370, 375A, 375B, 375C, 537, 560, 575, 578, 590, and one of the two specializations listed below.

Child Development Specialist: Child and Family Development 377, 378A (1 unit), and 378B (1 unit) or 378D (1 unit), 380, 477, and 577.

Family Development Specialist: Child and Family Development 378C (1 unit), 378D (1 unit), 536, and nine units selected with the approval of the program adviser.

## Child Development Minor

The minor in child development consists of a minimum of 16 units to include Child and Family Development 270+, 270L (1 unit), and 12 units selected from Child and Family Development 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 in residence at San Diego State University.

+ Indicates course with prerequisites not included in requirements listed above.


## Family Life Education Certificate

The purpose of this certificate program is to prepare students for careers in family life education. The program is designed for individuals working on degrees in child development and health science. It also provides a self-improvement opportunity for people seeking employment, promotion, or upward mobility on the job who are not enrolled in degree programs

Awarding of the certificate requires completion of an approved pattern of five courses ( 15 units) with a grade of "C" or better in each of the courses to include Child and Family Development 135, 270+, or 375C and 378C, or 375C and 378D, or Psychology 230+; Biology 307;

Psychology 355; and Public Health 353. The course offerings under this program meet the criteria for training and standards of the American Association of Sex Educators and Counselors. Courses in the certificate may not be counted toward the minor.

+ Indicates course with prerequisites not included in requirements listed above.


## Courses (CFD)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

CFD 135. Principles of Family Development (3) [GE] I, II
Intimacy, compatibility, conflict, and communication in relationship formation and adjustment.

## CFD 270. Human Development Across the Lifespan (3) I, II

Prerequisites: Psychology 101; concurrent registration in Child and Family Development 270L for one unit. Proof of completion of prerequisite required: Copy of transcript.

Development from conception to old age; emphasis on biological, cognitive, and socio-emotional development. Not open to students with credit in General Studies 130 or Psychology 230.

## CFD 270L. Principles of Child Development Laboratory (1-3) I, II

Three hours of laboratory for each unit.
Prerequisites: Psychology 101; credit or concurrent registration in Child and Family Development 270. Proof of completion of prerequisite required: Copy of transcript.

Multiple methods of observing and recording individual and group behavior of children. Observations required. May be repeated with consent of instructor. Maximum credit three units.

## CFD 272. Child, Family, Community (3)

Prerequisites: Child and Family Development 135, 270, 270L (one unit); Sociology 101. Proof of completion of prerequisites required: Copy of transcript.

Individual and family needs and the social institutions and agencies attempting to meet these needs. Social issues, service programs, program analyses, and program effectiveness emphasized.

CFD 275. Developmentally Appropriate Practices (3)
Two lectures and two hours of activity.
Prerequisites: Child and Family Development 270, 270L (one unit). Proof of completion of prerequisites required: Copy of transcript

Design, implementation, and evaluation of developmentally appropriate practices for children and families.

## CFD 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)CFD 335. Interaction in Families (3) I, II
Prerequisite: Completion of all lower division preparation for the major courses with a grade of $C$ (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.

Family interaction patterns throughout the life cycle in a multicultural society. Emphasis on theories, research findings, and family practices.

## CFD 370. Research, Assessment, and Evaluation of Children and Families (3) I, II

Prerequisite: Completion of all lower division preparation for the major courses with a grade of $C$ (2.0) or better. 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.

## CFD 375A. Human Development: Infant/Toddler (2) I, II

Prerequisites: Credit or concurrent registration in Child and Family Development 378A or 378B or 378D. Completion of all lower division preparation for the major courses with a grade of $C$ (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.

Physiological, psychological, cognitive, and socio-emotional development of the human organism in cultural contexts from conception to three years of age. (Formerly numbered Child and Family Development 570.)

CFD 375B. Human Development: Early/Middle Childhood (2) I, II
Prerequisites: Credit or concurrent registration in Child and Family Development 378B or 378C or 378D. Completion of all lower division preparation for the major courses with a grade of $C$ (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.

Physiological, psychological, cognitive, and socio-emotional development of the human organism in cultural contexts from age 3 to age 12. Not open to students with credit in Child and Family Development 371 and 375.

CFD 375C. Human Development: Adolescence/Adulthood (2) I, II
Prerequisite: Credit or concurrent registration in Child and Family Development 378C or 378D. Completion of all lower division preparation for the major courses with a grade of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.

Physiological, psychological, cognitive, and socio-emotional development of the human organism in cultural contexts from age 12 to old age. Not open to students with credit in Child and Family Development 371 and 375.

## CFD 377. Adult Supervision in Child and Family Development

 Programs (3)Prerequisites: Child and Family Development 375A, 375B; and two units selected from Child and Family Development 378A, 378B, or 378 D. Proof of completion of prerequisites required: Copy of transcript.

Development of leadership, communication, conflict resolution, and supervision of professionals in child and family development programs.

CFD 378A. Laboratory Experiences: Infants/Toddlers (1-3) Cr/NC
Three hours of laboratory for each unit of credit.
Prerequisites: Concurrent registration in Child and Family Development 375A. Completion of all lower division preparation for the major courses with a grade of $C(2.0)$ or better. Proof of completion of prerequisites required: Copy of transcript.

Directed experiences in mainstream settings for infants and toddlers. Designing and implementing developmentally appropriate activities. Maximum credit three units with consent of instructor. (Formerly numbered Child and Family Development 376A.)

## CFD 378B. Laboratory Experiences: <br> Preschool/Kindergarten (1-3) Cr/NC

Three hours of laboratory for each unit of credit.
Prerequisites: Concurrent registration in Child and Family Development 375B. Completion of all lower division preparation for the major courses with a grade of $C$ (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.

Directed experiences in mainstream settings for children ages 3 to 6, preschool, and kindergarten children. Designing and implementing developmentally appropriate activities. Maximum credit three units with consent of instructor. Not to exceed three units of credit in any combination with Child and Family Development 376A completed prior to fall 2006.

## CFD 378C. Laboratory Experiences: Age 6 Through Adolescence (1-3) Cr/NC

Three hours of laboratory for each unit of credit.
Prerequisites: Concurrent registration in Child and Family Development 375B or 375C. Completion of all lower division preparation for the major courses with a grade of $C$ (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.

Directed experiences in mainstream settings for children age 6 through adolescence. Designing and implementing developmentally appropriate activities. Maximum credit three units with consent of instructor. (Formerly numbered Child and Family Development 376B.)

## CFD 378D. Laboratory Experiences with Children and Families (1-3) $\mathrm{Cr} / \mathrm{NC}$ <br> Three hours of laboratory for each unit of credit.

Prerequisites: Concurrent registration in Child and Family Development 375A, 375B, or 375C. Completion of all lower division preparation for the major courses with a grade of $\mathrm{C}(2.0)$ or better. Proof of completion of prerequisites required: Copy of transcript.

Directed experiences in intergenerational programs. Designing and implementing developmentally appropriate interactions for children and their families/caregivers. Maximum credit three units with consent of instructor. (Formerly numbered Child and Family Development 376C.)

CFD 380. Early Literacy Development and School Readiness (3)
Prerequisites: Child and Family Development 375A and 375B; and Child and Family Development 378A or 378B or 378D. Completion of all lower division preparation for the major courses with a grade of $C$ (2.0) or better. Proof of completion of prequisites required: Copy of transcript.

Early development of language, baby signs, literacy, and school readiness. Focus on brain, cognition, and socio-emotional development. Applications of developmentally appropriate practice to enhance literacy and school readiness.

## CFD 477. Administration of Child Development Programs (3) I

Prerequisites: Child and Family Development 375A, 375B, 380; and two units selected from Child and Family Development 378A, 378B, or 378D. Proof of completion of prerequisite required: Copy of transcript.

Programs for young children: design, implementation, and evaluation. Research applications and legal requirements for public and private sectors.

## CFD 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.

## CFD 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)

## CFD 536. Divorce and Remarriage (3) II

Prerequisites: Child and Family Development 335 and Sociology 101. Proof of completion of prerequisites required: Copy of transcript.

Integration of family theories and research findings. Emphasis on adjustment to divorce and remarriage throughout life cycles, across cultures, social classes, and ethnicities.

## CFD 537. Child Abuse and Family Violence (3) I, II

Prerequisites: Child and Family Development 375A, 375B, 375C, and two units from Child and Family Development 378A, 378B, 378C, 378D. Proof of completion of prerequisites required: Copy of transcript.

Multidisciplinary approach to child abuse and family violence including maltreatment, mistreatment, neglect, sexual abuse.

CFD 560. Theories in Socio-Emotional Development (3) I, II
Prerequisites: Child and Family Development 375A, 375B, 375C, and two units from Child and Family Development 378A, 378B, 378C, 378D. Proof of completion of prerequisites required: Copy of transcript.

Socio-emotional development from infancy to adulthood. Theory of mind, emotional intelligence, and relationship-based development.

## CFD 575. Public Policy and Professional Ethics in Child and Family Development (3)

Prerequisites: Child and Family Development 375A, 375B, 375C, two units from Child and Family Development 378A, 378B, 378C, 376D, and Child and Family Development 536 or 537 or 590 . Proof of completion of prerequisites required: Copy of transcript.

Public policy and professional ethics as applied to child and family development, programs, and research.

## CFD 577. Advanced Administration of Child Development Programs (3) II

Prerequisite: Child and Family Development 477. Proof of completion of prerequisite required: Copy of transcript.

Problem analysis and development of successful organizational strategies for child development program delivery. Leadership, effective communication, social and ethical issues from a multicultural perspective.
CFD 578. Conflict Resolution Across the Life Span (4) I, II
Three lectures and three hours of laboratory.
Prerequisites: Child and Family Development 335, 370, 375A, 375B, 375C, two units from Child and Family Development 378A, 378B, 378C, 378D, and Child and Family Development 537 and 560 with a grade of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.

Theories of conflict development and resolution across lifespan. Parenting styles, discipline, behavior and class management, and conflict resolution techniques used in relationships. Directed experiences using conflict resolution techniques in various settings.

## CFD 590. Children with Special Needs (4) I, II

Three lectures and three hours of laboratory.
Prerequisite: Child and Family Development 270 or Psychology 230, and completion of 12 upper division units in child and family development with a grade of $C$ (2.0) or better for majors; consent of instructor for graduate students. Proof of completion of prerequisites required: Copy of transcript.

Adaptive and maladaptive processes throughout life span with emphasis on emotional, psychological, and physical disorders. Etiology, development, and adjustment. Directed experience with special needs individuals and their families.

## CFD 596. Advanced Studies in Child and Family Development (1-6)

Prerequisite: Nine upper division units in child and family development.

Advanced study of selected topics. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of nine units of 596. No more than six units of 596 may be applied to either the bachelor's or master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30 -unit master's degree.

## GRADUATE COURSES

Refer to the Graduate Bulletin.

## Chinese

OFFICE: Business Administration 327
TELEPHONE: 619-594-5268
FAX: 619-594-4877
http://www-rohan.sdsu.edu/dept/linguist/index.html
http://www-rohan.sdsu.edu/dept/chinese/

## Faculty

Emerita: Woo
Chair: Kaplan
Associate Professor: Zhang
Assistant Professor: Wu
Offered by the Department of Linguistics and Oriental Languages
Minor in Chinese.

## Offered by International Business

Major in international business, with emphasis in Chinese.

## Language Requirement for the

## B.A. Degree in Liberal Arts and Sciences

Students electing the study of Chinese to fulfill the 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 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 or five college quarters, thus fulfilling the language requirement.

## Chinese Minor

The minor in Chinese consists of a minimum of 19 units in Chinese; at least 16 units must be taught in Chinese, 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, Asian Studies 458, 459, Comparative Literature 455, 460 (when appropriate), History 566, 567, either Linguistics 420 or 520, Philosophy 351, Religious Studies 345.

## In the Department of Linguistics and Oriental Languages <br> In the College of Arts and Letters

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 in residence at San Diego State University.

## Courses (CHIN)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## 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 lower division courses taken after successfully completing any upper division Chinese course taken in Chinese.

No credit will be given for Chinese 101, 102, 201, 202, 301, and 302 taken out of sequence or concurrently.
CHIN 101. Elementary Chinese I (5) [GE] 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. See Class Schedule for appropriate section based on your background in Chinese.

## CHIN 102. Elementary Chinese II (5) [GE] II

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 four years of high school Chinese unless the fourth course was completed five or more years ago. See Class Schedule for appropriate section based on your background in Chinese.
CHIN 201. Intermediate Chinese I (5) [GE] I
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. See Class Schedule for appropriate section based on your background in Chinese.

## CHIN 202. Intermediate Chinese II (5) [GE] II

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. See Class Schedule for appropriate section based on your background in Chinese.

## CHIN 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.

No credit will be given for Chinese 301 and 302 taken out of sequence.

## CHIN 301. Advanced Chinese I (3) [GE]

Prerequisites: Chinese 202 and completion of the General Education requirement in Foundations II.C., Humanities.

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.

## CHIN 302. Advanced Chinese II (3) [GE]

Prerequisites: Chinese 301 and completion of the General Education requirement in Foundations II.C., Humanities.

Continuation of Chinese 301. Writing paragraphs and longer expository texts. Reading modern and classical literature.

## CHIN 351. Introduction to Classical Chinese (3)

Prerequisite: Chinese 302.
Basic vocabulary and grammatical features of classical Chinese, its contrast with modern Chinese, its special stylistic and rhetorical conventions. Texts from Confucian canon and Tang Dynasty poetry.

## CHIN 352. Aspects of Chinese Language (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities. Strongly recommended: A course in foreign language or linguistics.

Relationship with other languages; dialects, their development and relationship to Mandarin; writing system and its evolution; Romanization schemes; structural and socio-cultural aspects, especially as they differ from English; unique problems of learning the language. Taught in English.

## CHIN 431. Advanced Conversational Chinese (3)

Prerequisite: Credit or concurrent registration in 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.

## CHIN 433. Newspaper Chinese (3)

Prerequisite: Credit or concurrent registration in 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.

## CHIN 434. Business Chinese (3)

Prerequisite: Credit or concurrent registration in 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.

## CHIN 450. Readings in Chinese Civilization <br> (3)

Prerequisite: Chinese 302.
Readings in Chinese from areas such as philosophy, religion, history, geography, folk tales, and legends. Film and video presentations to enhance a greater understanding and appreciation of Chinese civilization.

## CHIN 451. Readings in Modern Chinese Literature (3)

Prerequisite: Chinese 302.
Fiction, prose, poems, and plays written after May Fourth Movement in 1911, which marked beginning of vernacular literature.

## CHIN 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.
CHIN 499. Special Study (1-3) I, II
Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

# Civil Engineering 

OFFICE: Engineering 424
TELEPHONE: 619-594-6071
E-MAIL: ce@engineering.sdsu.edu

The undergraduate degree in Civil Engineering is accredited by the American Board for Engineering and Technology.

## Faculty

Emeritus: Chang, Chou, Johnson, Krishnamoorthy, McGhie, Noorany, Sharabi
Chair: Supernak
The AGC Paul S. Roel Chair in Construction Engineering and Management: Walsh
The William E. Leonhard, Jr. Chair in Civil and Environmental Engineering: Forman
Professors: Banks, Bayasi, Hayhurst, Ponce, Supernak, Westermo Associate Professor: Walsh
Assistant Professors: Beighley, Forman, Milberg, Valdes
Adjunct: Penchina, Won

## Offered by the Department of Civil and Environmental Engineering

Doctor of Philosophy degree in engineering sciences/applied mechanics.
Master of Engineering in manufacturing and design.
Master of Science degree in civil engineering.
Concentration in environmental engineering.
Major in civil engineering with the B.S. degree.
San Diego State University is in the process of securing approval for a Bachelor of Science degree in Construction Engineering. For further information, contact the Department of Civil and Environmental Engineering.

## The Associated General Contractors (AGC) Paul S. Roel Chair in Construction Engineering and Management

The AGC-Paul S. Roel Chair in Construction Engineering and Management is funded with an endowment established by generous gifts from members of the Associated General Contractors in San Diego Chapter. Recognizing the need for expert construction professionals, the local construction community has invested considerable resources in this new degree program. In particular, the endowment is funded by a significant gift from Roel Construction, in honor of Paul S. Roel, the son of the company's founder and the man responsible for moving the family business to San Diego in 1959. The first appointee to the Chair, Dr. Kenneth D. Walsh, is an accomplished teacher-scholar, with a research background in improvement of production systems in construction in residential, commercial, and heavy civil settings.

## The William E. Leonhard, Jr. Chair in Civil and Environmental Engineering

The William E. Leonhard, Jr. Chair in Civil and Environmental Engineering is funded with an endowment created by generous gifts from William G. Leonhard, Jr. and his parents, William E. and Wyllis M. Leonhard. After Bill Leonhard graduated from San Diego State in 1964, he entered a career in the Air Force, rising to the rank of colonel. In January 1990, he retired from the Air Force, spent the next several years in private industry, and retired again in 1998. The first appointee to the Chair is Assistant Professor, Dr. Selena Forman, an expert in sediment water interactions, contaminated sediment transport, and river restoration design.

## Mission of the Department

The mission of the Department of Civil and Environmental Engineering is to provide a high quality undergraduate and graduate education in the civil and environmental engineering areas as well as the advising and other support needed to ensure the students' academic success and preparation for a productive engineering career. In addition, through research and continuing professional development, the faculty produce, enhance and promote new developments within their areas of expertise for the benefit of society and the furtherance of their profession.

The objective of the program is to give the student a basic knowledge of civil and environmental engineering, as well as the interdisciplinary background and skills to meaningfully participate in and contribute technical advances toward this profession. The program integrates technical aspects with studies in the social sciences and humanities to ensure appropriate sensitivity to socially related problems.

Instruction is given both at the undergraduate level, leading to the bachelor's degree, and at the graduate level, leading to the master's or doctoral degrees. The undergraduate program builds upon concepts of mathematics, physics, chemistry and basic engineering with specialized study in civil and environmental engineering. Engineering design is emphasized, particularly in conjunction with computer utilization and practical civil and environmental engineering problems. Aspects of safety and engineering ethics are woven throughout the program. Breadth and depth of social science and humanities studies is assured by department approved courses. Completion of the undergraduate degree prepares the student for an entry-level professional position in addition to informal or formal graduate studies.

Many students who complete the civil or the environmental undergraduate program choose to continue their formal studies on a full or part-time basis at San Diego State University or at another institution. (See the Graduate Bulletin for additional information.) The objective of the graduate program is to broaden the student's technical competence and design abilities and allow for additional specialization.

The civil and environmental engineering program is enhanced through cooperation with the American Society of Civil Engineers, the American Public Works Association, the Associated General Contractors, the Chi Epsilon Civil Engineering Honor Society, and other national organizations who sponsor student chapters to further aid the student's professional development. The chapters at San Diego State University have won many awards in regional and national competition with other schools throughout the country.

## Educational Objectives

The objectives of the program are to prepare graduates to practice civil engineering in the areas of structures, geotechnical, water resources, transportation, environmental, and construction by providing them with the ability to apply the basic principles of the mathematical, physical, and social sciences to the analysis and solution of civil engineering problems including the design of civil engineering projects; to provide a basic understanding of issues faced during professional practice and a solid foundation for continuing education and graduate study.

The following is a recommended sequence of courses for the major in civil engineering. See General Education in this section for specific GE requirements.

## CIVIL ENGINEERING MAJOR

| FALL | FIRST YEAR |  |  | SPRING |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SEMESTER 1 |  | UNITS | SEMESTER 2 |  | UNITS |
| GE Composition |  | 3 | GE Intermediate Com |  | 3 |
| GE Math/Major Prep: | MATH 150 | 4 | GE Oral Communica |  | 3 |
| GE Phys Science/Lab/Major Pre | CHEM 200 | 5 | Major Preparation: | MATH 151 | 4 |
| Major Preparation: | CIV E 100 | 1 | Major Preparation: | PHYS 195 | 3 |
| Major Preparation: | CIV E 120 | 3 | Major Preparation: | CIV E 121 | 2 |
| Total Units |  | 16 | Total Units |  | 15 |
| Cumulative Total |  | 16 | Cumulative Total |  | 31 |
| FALL | SECOND YEAR |  |  | SPRING |  |
| SEMESTER 3 |  | UNITS | SEMESTER 4 <br> Take the Writing Proficiency Assessment Examination |  | UNITS |
| GE Humanities |  | 3 | GE Humanities |  | 3 |
| Major Preparation: | MATH 252 | 4 | GE Life Science |  | 3 |
| Major Preparation: | PHYS 196 | 3 | GE Social Science |  | 3 |
| Major Preparation: | CIV E 160 | 2 | Major Preparation: | CIV E 218 | 3 |
| Major Preparation: | CIV E 220 | 3 | Major Preparation: | ENGR 280 | 3 |
| Major Preparation: | E M 200 | 3 | Major Preparation: E M 220 3 |  |  |
| Total Units |  | 18 | Total Units |  | 18 |
| Cumulative Total |  | 49 | Cumulative Total |  | 67 |
| FALL |  | THIRD YEAR |  | SPRING |  |
| SEMESTER 5 <br> GE Humanities |  | UNITS <br> 3 | SEMESTER 6 |  | UNITS $3$ |
| Major: | CIV E 301 | 3 | GE Explorations: Social/Beh Science |  | 3 |
| Major: | CIV E 302 | 1 | GE Explorations: Humanities |  | 3 |
| Major: | CIV E 395 | 2 | Major: | CIV E 321 | 3 |
| Major: | E M 340 | 3 | Major: | CIV E 481 | 3 |
| Major: | E M 341 <br> EE 204, ME 240 OR ME 352 | 1 | Major: | ENV E 355 | 3 |
| Major (Sci Elect): EE 204 |  | 3 |  |  |  |
| Total Units |  | 16 | Total Units |  | 18 |
| Cumulative Total |  | 83 | Cumulative Total |  | 101 |
| FALL | FOURTH YEAR |  |  | SPRING |  |
| SEMESTER 7 | UNITS |  | SEMESTER 8 |  | UNITS |
| Major: | CIV E 401 | 1 | Major: | CIV E 495 | 3 |
| Major: | CIV E 444 | 3 | Civil Engineering Optional Courses |  | 6 |
| Major: | CIV E 462 | 3 | Professional Electives |  | 6 |
| Major: | CIV E 463 | 1 | GE American Institutions |  | 3 |
| Civil Engineering Optional Cour |  | 6 |  |  |  |
| GE American Institutions |  | 3 |  |  |  |
| Total Units |  | 17 | Total Units |  | 18 |
| Cumulative Total |  | 118 | Cumulative Total |  | 136 |

## 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 American Board for Engineering and Technology, 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, unaccredited work will be evaluated for full or partial credit.

## 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. No more than twelve units may be used for General Education credit from any one department or academic unit. No more than 7 units from one department can be used in Sections II and IV combined (Foundations and Explorations), nor more than 10 units from one department in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).
I. Communication and Critical Thinking: 9 units

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

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)
II. Foundations: 29 units
A. Natural Sciences and Quantitative Reasoning (17 units):
4. Physical Sciences (11 units)

Engineering students will take Chemistry 200 which includes a laboratory (5 units).
Physics 195 (3 units)
Physics 196 (3 units)
2. Life Sciences (3 units)
3. Laboratory (satisfied under A.1. above)
4. Mathematics/Quantitative Reasoning

Engineering students will take Mathematics 150, 3 units applicable to General Education. You may not use Credit/No Credit grades.
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: Courses in this area must not be taken sooner than the semester in which you achieve upper division standing (60 units passed). Upper division courses in the major department may not be used to satisfy General Education. Total: 9 units; must include one course of cultural diversity.
A. Upper division Humanities (3 units)

Three units must be taken from the same department as one of the Humanities courses selected in Foundations.
B. Upper division Humanities (3 units from a department not selected in A above.)
C. Upper division Social and Behavioral Sciences (3 units)

## The Major

Civil engineering is the application of engineering principles to the improvement of the human environment. The civil engineering major prepares students to design and supervise the construction of buildings, dams, roads, harbors, airports, tunnels, and bridges. It also provides training in the planning and construction of the complex systems that supply clean water to cities, remove sewage, control floods, and perform other functions which ensure continued health and safety.

Civil engineers are needed in both the private and public sectors. They are employed in the aerospace industry, usually as structural engineers; design and construction of roads, buildings, bridges, airports, dams and other structures; research and teaching at colleges and universities (with an advanced degree); public utilities and transportation; manufacturing; and offshore drilling, environmental pollution, and energy self-sufficiency. New job opportunities in civil engineering will result from growing demands in housing, industrial buildings, power generating plants, and transportation systems.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Civil Engineering Major

## With the B.S. Degree (Major Code: 09081)

NOTE: See chart on the previous page for the recommended sequence of courses for the major in civil engineering.

The program below describes 136 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 the minimum requirement, and there is a minimum requirement of nine units for the combination of the Engineering Science Elective and the Professional Electives.

Preparation for the Major. Civil Engineering 100, 120, 121, 160, 218, 220; Chemistry 200; Physics 195, 196; Mathematics 150, 151, 252; Engineering 280; Engineering Mechanics 200, 220.

Engineering Science Elective. At least one of the following courses: Electrical Engineering 204; Mechanical Engineering 240, 352.

General Education. Engineering students must follow the specific General Education program outlined on the first page of this section. Other general education requirements and limitations, as well as listings of specific General Education course electives are presented in the General Education section of Graduation Requirements for the Bachelor's Degree.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(W)$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 48 upper division units to include the following required and elective courses. Required upper division courses in the major: Engineering Mechanics 340, 341; Environmental Engineering 355; Civil Engineering 301, 302, 321, 395, 401, 444, 462, 463, 481, 495.

Civil and Environmental Engineering Option Courses. Course choices must consist of either (1) at least one course from at least four of the first five areas (Water through Geotechnical), or (2) at least two courses from the last area (Construction) and at least one course each from two of the first five areas (Water through Geotechnical).

Water - Civil Engineering 445, 530.
Transportation - Civil Engineering 482, 580.
Environmental - Environmental Engineering 455, 553, 554, 556, 558.
Structural - Civil Engineering 421, 423, 479, 521, 525, 528.
Geotechnical - Civil Engineering 465.
Construction - Civil Engineering 479, 491, 492.
Professional Electives. At least six units selected from Engineering 430 and any 400- or 500-level Civil or Environmental Engineering courses not used to satisfy other requirements.

Master Plan. A master plan of elective courses must be approved by the undergraduate adviser and filed with the Office of Advising and Evaluations as soon as the civil engineering major is declared. Students are required to see their undergraduate adviser prior to registration each semester.

## Courses (cive)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Note: Proof of completion of prerequisites (copy of transcript) is required for all courses which list prerequisites.

## LOWER DIVISION COURSES

## CIV E 100. Introduction to Civil Engineering (1) I

Introduction to diverse field of civil and environmental engineering to include structural, geotechnical, water resources, transportation, construction engineering and management, and environmental engineering. Legal, ethical, and international dimensions of the profession.

## CIV E 120. Computer Applications in Civil/Environmental Engineering and Construction (3) I

Prerequisite: Credit or concurrent registration in Mathematics 150.
Computing tools for civil engineering. Use of spreadsheets, programming, mathematical analysis programs, presentation, and graphics programs.

## CIV E 121. Computer Graphics for the Built Environment (2) I Prerequisite: Civil Engineering 120. <br> Computer aided design for civil engineering applications (AutoCAD).

CIV E 160. Statistical Methods for the Built Environment (2) I, II Prerequisite: Mathematics 141.
Application of statistical methods to civil and environmental engineering problems in construction, hydrology, water quality, air pollution, and other related areas. 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: Civil Engineering 160; Administration, Rehabilitation and Postsecondary Education 201; Biology 215; Economics 201; Political Science 201; Psychology 270; Sociology 201; Statistics 119, 250.

## CIV E 218. Surveying for Civil Engineering and

 Construction (3) I, IITwo lectures and three hours of laboratory.
Prerequisites: Civil Engineering 160 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.

## CIV E 220. Civil and Environmental Engineering Computer Applications III (3) I

Prerequisite: Civil Engineering 121.
Graphical information systems (GIS), specialized civil engineering software, advanced problem solving.

## CIV E 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 <br> (Intended for Undergraduates)

## CIV E 301. Introduction to Solid Mechanics (3) I, II

Prerequisite: Engineering Mechanics 200.
Mechanics of solid deformable bodies involving analytical methods for determining strength, stiffness, and stability of load-carrying members.

CIV E 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.

## CIV E 321. Structural Analysis I (3) I, II

Prerequisites: Civil Engineering 301 and 302.
Analysis of beams, frames, trusses, and three-dimensional frameworks. Influence lines; deflections; introduction to statically indeterminate structures and moment distribution.

## CIV E 395. Introduction to Civil Engineering Design (2)

One lecture and three hours of laboratory.
Prerequisite: Credit or concurrent registration in Civil Engineering 301.

Civil engineering design process; identification and formulation of design problems; professional responsibilities of designers; documentation and presentation of designs.
CIV E 401. Civil Engineering and Society (1) I
Prerequisite: Senior standing in civil engineering.
Role of civil engineers in society. Historical, political, esthetic, and philosophical perspectives on civil engineering. Contemporary issues involving civil engineering.

## CIV E 421. Reinforced Concrete Design (3) I, II

Prerequisite: Civil Engineering 321.
Properties and characteristics of reinforced concrete; design of structural components. Introduction to plastic theory and limit design.

## CIV E 423. Timber Design (2) I, II

Prerequisites: Civil Engineering 321.
Physical and mechanical properties of wood. Sawn lumber, glulam, plywood. Design of various types of wood structures. Connection design.

## CIV E 444. Applied Hydraulics (3) I, II

Prerequisite: Engineering Mechanics 340.
Open channel and pressure conduit flow, pumps and turbines, hydroelectric power, flood control, and water law.

## CIV E 445. Applied Hydrology (3) II

Prerequisite: Civil Engineering 444.
Basic hydrologic principles, hydrologic measurements, small and midsize catchment hydrology, frequency analysis, regional analysis, reservoir, stream channel and catchment routing, hydrologic design.

## CIV E 462. Geotechnical Engineering (3) I, II

Prerequisite: Civil Engineering 301 or Engineering Mechanics 340.
Mechanics of soils as they apply to engineering problems, soil classification, compaction, swelling, consolidation, strength and permeability. Applications to geotechnical and environmental engineering problems.

## CIV E 463. Geotechnical Engineering Laboratory (1) I, II

Three hours of laboratory.
Prerequisite: Concurrent registration in Civil Engineering 462.
Laboratory procedures of soil testing for geotechnical and environmental engineering problems.

## CIV E 465. Foundation Engineering and Earth Retaining

 Structures (3) IIPrerequisites: Civil Engineering 462 and 463.
Soil mechanics theories applied to design of shallow and deep foundations; lateral pressure of soils, design of retaining walls.

## CIV E 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.

## CIV E 481. Transportation Engineering (3) I, II

Prerequisites: Civil Engineering 218.
Physical design of transportation facilities, traffic analysis and control for different modes, planning and demand analysis, introduction to environmental impacts of transportation systems and intelligent transportation systems.

CIV E 482. Highway Engineering (3) I, II
Two lectures and three hours of laboratory.
Prerequisite: Civil Engineering 481.
Highway design, facility sizing, geometric design, drainage, earthwork, pavement design, traffic control devices, safety and environmental considerations.

## CIV E 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.

## CIV E 492. Construction Engineering (3) II

Prerequisites: Civil Engineering 491 and Engineering 430.
Project oriented. Cost estimating; alternative cost-saving changes; critical path scheduling.

## CIV E 495. Capstone Design Project (3) I, II

One lecture and six hours of laboratory.
Prerequisites: For civil engineering majors: Credit or concurrent registration in Civil Engineering 421, 444, 462, 481, and Environmental Engineering 355. At least three of these courses must be completed prior to enrolling in this course. For environmental engineering majors: Engineering 430 and credit or concurrent registration in Environmental Engineering 455, 554, 556, 558. At least three of these courses must be completed prior to enrolling in this course.

Application of engineering principles and design techniques to the design of civil engineering projects.

## CIV E 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.

## CIV E 499. Special Study (1-3) Cr/NC I, II

Prerequisites: Minimum grade point average of 3.0 and consent of instructor.

Individual study in the area of civil engineering. Maximum credit six units for any combination of Civil Engineering 496, 499 and 596.

## UPPER DIVISION COURSES

## (Also Acceptable for Advanced Degrees)

## CIV E 521. Structural Analysis II (3) I

Prerequisite: Civil Engineering 321.
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.

## CIV E 525. Design of Steel Structures <br> (3) I, II

Prerequisite: Civil Engineering 321.
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.

## CIV E 528. Masonry Structures Design (3) I

Prerequisites: Civil Engineering 301 and 321
Analysis and design of masonry beams, retaining walls, shear walls, bearing walls, and columns. Use of allowable stress and strength design methods. Design project, including structural system analysis and lateral design of masonry buildings.

## CIV E 530. Open Channel Hydraulics <br> (3) I, II

Prerequisite: Civil Engineering 444.
Principles of open channel flow; analysis and problems of critical, uniform, gradually-varied, and rapidly-varied flows, design and environmental problems; computer simulations and applications; and culvert hydraulics.

## CIV E 580. Traffic Engineering Design <br> (3) II

Prerequisite: Civil Engineering 481.
Sizing and configuration of highway facilities based on capacity analysis. Traffic signal design, impact and mitigation studies, parking, safety design.

## CIV E 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.

> For additional courses which are electives in the civil engineering program, refer to "Environmental Engineering" in this section of the catalog.

## Classics

## In the College of Arts and Letters

## Faculty

Emeritus: Eisner, Genovese, Hamilton, Warren
Chair: Genovese
Associate Professor: Smith
Assistant Professor: Cook

## Offered by the Department of Classics and Humanities

Major in classics with the B.A. degree in liberal arts and sciences. Emphasis in classical humanities.
Emphasis in classical language.
Teaching major in classics (concentration in Latin) for the single subject teaching credential in foreign languages.

## Minor in classics.

## The Major

Classics is the study of the languages, literatures, and civilizations of ancient Greece and Rome. These are the oldest European and American traditions of the humanities and the liberal arts. Classics literally means works of the first class or rank, and their profound truths and disciplined forms have ensured their lasting relevance.

All Classics majors take two or more years of Greek or Latin. They may choose the language emphasis that allows them to study one or both languages, or they may choose the broader emphasis in classical humanities. Classics majors have at their disposal the Burnett Classics Seminar Room with its library and media resources. In addition to small language classes, close academic advising, and the fellowship of a small department with diverse interests, Classics majors culminate their studies with a senior seminar.

Although the prime purpose of the Classics major is to satisfy a quest for the original intellectual and artistic values of Western civilization, graduates enjoy a range of professional choices in addition to academic careers in Classics and various humanities disciplines. Classics majors are well prepared for law school, and with supplementary coursework in business, economics, or information systems, a Classics graduate can be very competitive in the business world. Classics graduates also have an advantage as editors, librarians, journalists, and technical writers. Opportunities are available in public relations, government, and other fields where general knowledge, perspective, and a facility with language serve not only the public good but one's own success.

## High School Equivalents

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the 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.

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http://clasxhum.sdsu.edu
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 or five college quarters, thus fulfilling the 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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.

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major plus one language course in the major

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508 W or Rhetoric and Writing Studies 305 W or 500 W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Classics 320, 330, History 502, 503, Humanities 490; nine units selected from Art 568, Communication 450, History 501, Humanities 402, Philosophy 411 (additional prerequisite required), upper division courses in Classics; six units of Greek or Latin.

## Emphasis in Classical Language

Preparation for the Major. Classics 101G-202G or 250G; Classics 101L-202L or 250L; and six units from Classics 140, Comparative Literature 270A, History 105, Humanities 140. (14-26 units)

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major plus one language course in the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508 W or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Classics 320 and Humanities 490; History 502 or 503; three to nine units from upper division courses in Classics, Art 568, History 502, 503, Philosophy 411 (additional prerequisite required); 12-18 units of Greek or Latin.

## Classics Major

In preparation for the Single Subject Teaching Credential in Foreign Languages
With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15041)
No new students are being accepted. Contact the department for additional information.

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)

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major plus one language course in the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508 W or Rhetoric and Writing Studies 305 W or 500 W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Classics 303L, 304L, 320, and Humanities 490; nine units in Classics 496L or 599L to include three units in Special Study in Latin Teaching Methods; History 503; six units from Classics 310, 330, 340, Art 568, History 502, or Philosophy 411 (additional prerequisite required).

## Classics Minor

The classics minor consists of a minimum of 18-20 units selected from one of the following:

Language - 19-20 units, of which nine units must be upper division. At least 16-17 units must be taught in Greek or in Latin and three units selected from Classics 310, 320, 330, 340.
Nonlanguage - 18 units, of which 12 units must be upper division. A minimum of six upper division units must be selected from classics courses, and up to six units may be selected from Art 568, History 502, 503, or Philosophy 411 (additional prerequisite required).

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 in residence at San Diego State University.

## Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Greek or Latin to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Classics 303G or 303L or the equivalent level of achievement. The usual sequence of course work is either Classics 101G, 202G, and 303G, OR Classics 101L, 202L, and 303L. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

## Courses (class)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Classics includes courses in Greek and Latin as well as nonlanguage courses. Greek course numbers have a G suffix; Latin courses have an $L$ suffix.

No credit will be given for Classics 101G, 202G, 303G, 304G taken out of sequence.

No credit will be given for Classics 101L, 202L, 301L, 303L taken out of sequence.

## LOWER DIVISION COURSES

## CLASS 101G. Elementary Greek I (5) [GE] 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.

## CLASS 101L. Elementary Latin I (5) [GE] 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.

## CLASS 120. English from Latin and Greek (3) [GE]

General philology, emphasizing Latin and Greek bases and their English derivatives. Etymology, word analysis and construction, language history and structure.

## CLASS 140. Our Classical Heritage (3) [GE]

Greek and Roman art, literature, and institutions as reflected in the Western tradition.

## CLASS 202G. Elementary Greek II (5) [GE] 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.

## CLASS 202L. Elementary Latin II (5) [GE] 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.

## CLASS 250G. Accelerated Elementary Greek (8) S <br> (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.

## CLASS 250L. Accelerated Elementary Latin (8) S (Offered only in Extension)

Intensive beginning classical Latin. 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.

## CLASS 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)CLASS 303G. Readings in Greek Prose (3) [GE] I
Prerequisites: Classics 202G or 250G, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors.

Readings selected from Greek history, philosophy, oratory, and New Testament. Authors such as Xenophon, Plato, Lysias, the Evangelists. Emphasis on rapid reading.

## CLASS 303L. Readings in Latin Prose (3) [GE] I

Prerequisites: Classics 202L or 250L, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors.

Readings selected from classical Latin history, philosophy, oratory, letters. Authors such as Sallust, Cicero, Pliny the Younger.

## CLASS 304G. Readings in Greek Poetry (3) [GE] II

Prerequisites: Classics 303G, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors.

Readings selected from Greek epic, elegy, tragedy. Authors such as Homer, Sophocles, Euripides.

## CLASS 304L. Readings in Latin Poetry (3) [GE] II

Prerequisites: Classics 303L, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors.

Readings selected from classical Latin epic, lyric, elegy, comedy. Authors such as Vergil, Catullus, Ovid, Plautus.

## CLASS 310. Classical Mythology (3) [GE]

Prerequisites: Nine units from General Education courses in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors. Recommended: Rhetoric and Writing Studies 200.

Mythological elements in Greek and Roman art, literature, and religion.

## CLASS 320. Classical Literature (3) [GE] I

Prerequisites: Nine units from General Education courses in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors. Recommended: Rhetoric and Writing Studies 200.

Reading in translation of Greek and Latin masterpieces. Emphasis on epic and prose genres. Authors such as Homer, Herodotus, Plato, Vergil, Apuleius. Literary and historical criticism.

## CLASS 330. Classical Drama (3) [GE] II

Prerequisites: Nine units from General Education courses in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors. Recommended: Rhetoric and Writing Studies 200.

Reading in translation of Greek and Roman tragedies and comedies. Playwrights such as Aeschylus, Sophocles, Euripides, Aristophanes, Plautus, Seneca. Literary, dramatic, historical criticism.

## CLASS 340. Classical Civilization (3) [GE]

Prerequisites: Nine units from General Education courses in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors. Recommended: Rhetoric and Writing Studies 200.

Greek and Roman civilization from Bronze Age to Late Empire. Integration of history, philosophy, literature, the arts, and society.

## CLASS 350. Classics and Cinema (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors.

Ancient Greece and Rome as represented in major cinematic productions. Screenplays compared with Greek and Latin sources in English translation.

## CLASS 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.
L. Topics in Latin.

## UPPER DIVISION COURSE

 (Also Acceptable for Advanced Degrees)
## CLASS 599. Special Study (1-3) I, II

Prerequisites: Consent of major or graduate adviser; to be arranged by department chair and instructor. For 599C: Classics 304L or 304G. For 599G: 304G. For 599L: 304L.

Directed individual study. Maximum credit nine units in any combination of 599C, 599G, 599L.
C. Special Study in Classics.
G. Special Study in Greek.
L. Special Study in Latin.

# Communication 

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E-MAIL: socdesk@mail.sdsu.edu

## Faculty

Emeritus: Broom, Brown, Buckalew, Hartung, Martin, Odendahl, Samovar, Sanders, Spevak
Interim Director: Borden
The Lionel Van Deerlin Professor of Communication and Public Policy: Eger
Professors: Andersen, J., Andersen, P., Beach, Borden, Dionisopoulos, Dozier, Eadie, Geist-Martin, Hellweg, Lauzen, Lustig, Mueller, Spitzberg, Wulfemeyer
Associate Professors: Davis, Zhong
Assistant Professors: Renegar, Sha, Ward
Lecturer: Lockwood

## Offered by the School

Master of Arts degree in communication with specializations in: Communication studies.
Mass communication and media studies.
Major in communication with the B.A. degree in liberal arts and sciences OR applied arts and sciences

General communication.
Emphasis in advertising.
Emphasis in public relations.
Emphasis in telecommunications and film. See Theatre, Television, and Film.
Major in journalism with the B.A. degree in liberal arts and sciences.
Minor in advertising.
Minor in communication.
Minor in journalism.
Minor in public relations.

## The Lionel Van Deerlin Professor of Communication and Public Policy

More than 40 major communications companies contributed to establish The Lionel Van Deerlin Professor of Communication and Public Policy. The professorship serves as the center for the study of public policy and 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 professorship is John M. Eger.

## General Information

The School of Communication, an academic unit within the College of Professional Studies and Fine Arts, emphasizes scholarly, creative, and professional aspects of communication studies. The school engages in teaching, research, and development of integrated, interactive, international, and intercultural communication for the twenty-first century. The mission of the School of Communication is to be a leader in advancing the theory and understanding of human communication and improving the practice of human communication; to study and teach the art, science, and practice of communication; and to provide an educational environment encouraging excellence, leadership, and creativity in communication scholarship and professional excellence.

In the College of Professional Studies and Fine Arts

## Impacted Programs

Programs in the School of Communication are impacted. Students must enter the university under the designated major code for selected program. To be admitted to the selected program, refer to the program description for specific impacted criteria.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Communication Major

## B.A. Degree in Liberal Arts and Sciences OR Applied Arts and Sciences

All candidates for a degree in liberal arts and sciences or a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Selecting the B.A. degree in liberal arts and sciences requires meeting the language requirement. Selecting the B.A. degree in applied arts and sciences requires the mathematics competency requirement. To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Lower division preparation for the major courses may be satisfied by comparable courses in community colleges or other institutions with which the university has articulation agreements.

NOTE: No more than 48 units in School of Communication courses can apply to the B.A. degree in Liberal Arts and Sciences.

## OPTION 1: General Communication Program

## With the B.A. Degree in Liberal Arts and Sciences OR <br> Applied Arts and Sciences <br> (Major Code: 15061)

Students majoring in general communication learn different ways in which communication has been conceptualized and investigated, as well as ways in which members of the communication discipline have used their knowledge and scholarship to engage a variety of social problems. Students will be given opportunities to study how effective communication enhances well-being, and relationships; promotes civic engagement; and allows for effective participation in a global community. Courses focus on organizing principles and patterns of social life through observation, analysis, and criticism of human interactions, communication behavior, mediated systems, and technological innovations. This major is firmly grounded in the liberal arts and sciences and is intended to prepare students to be effective members of society, as well as valued employees in whatever careers that they may choose to pursue. Graduates have often found positions in occupations such as sales, human resources, training, education, and consulting, or have pursued advanced academic or professional degrees in fields such as law, management, and marketing.

## Communication Studies Specialization

Impacted Program. General communication is an impacted program. To be admitted to the general communication program, students must meet the following criteria for the communication studies specialization as follows:
a. Complete with a minimum grade point average of 2.75 and a grade of C or higher: six units selected from Communication 160, 200, 204. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete the general education oral communication requirement with a grade of C or higher. This course cannot be taken for credit/no credit (Cr/NC);
c. Complete a minimum of 45 baccalaureate level semester units and a maximum of 90 semester units. (A minimum of 60 units are required for all transfer applicants.);
d. Have a cumulative grade point average of 2.75 or higher.

Preparation for the Major. General Education oral communication requirement and six units selected from Communication 160, 200, 204. (9 units) These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$ and must be completed with a minimum grade point average of 2.75 and a grade of C or higher in each class. The General Education oral communication course will not be included in the computation of the required grade point average of 2.75 .

Language Requirement (Liberal Arts and Sciences). Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Mathematics Competency Requirement (Applied Arts and Sciences). Competency in mathematics must be satisfied by three semesters of college mathematics or a statistical sequence such as Statistics 250, 350A, 350B (highly recommended); or Political Science 201*, 515, 516; or Sociology 201*, 406*, 407*.

## * Additional prerequisites required.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Communication 310W or Rhetoric and Writing Studies 305W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include six units from the following Communication Essentials courses: Communication 300, 305, or 350; 12 units from the following Conceptualizing Communication courses: Communication 360, 371, 406, 415, 450, 491, 555, 589, 592; six units from the following Investigating Communication courses: Communication 355, 410, 420, 493, 530; and 12 units selected from two of the following areas of Engaged Communication: Communicating to Enhance Well-Being and Relationships (Communication 421, 445, 452, 503, 583); Communicating to Promote Civic Engagement (Communication 301, 302, 309A, 309B, 408, 471, 490B, 499, 508, 545, 580, 584); Communicating in a Global Community (Communication 307, 407, 409, 479, 483, 571). Students selecting the communication studies specialization are required to complete a minor.

## Media Studies Specialization

Impacted Program. General communication is an impacted program. To be admitted to the general communication program, students must meet the following criteria for the media studies specialization as follows:
a. Complete with a minimum grade point average of 2.85 and a grade of $C$ or higher: Communication 200 and nine units selected from Economics 101, 102, Political Science 101, 102, Psychology 101, Sociology 101, Television, Film and New Media Production 160. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete the general education oral communication requirement with a grade of C or higher. This course cannot be taken for credit/no credit (Cr/NC);
c. Complete a minimum of 45 baccalaureate level semester units and a maximum of 90 semester units. (A minimum of 60 units are required for all transfer applicants.);
d. Have a cumulative grade point average of 2.75 or higher.

Preparation for the Major. Communication 200 and nine units selected from Economics 101, 102, Political Science 101, 102, Psychology 101, Sociology 101, Television, Film and New Media Production 160. (12 units) These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$ and must be completed with a minimum grade point average of 2.85 and a grade of C or higher in each class.

Language Requirement (Liberal Arts and Sciences). Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Mathematics Competency Requirement (Applied Arts and Sciences). Competency in mathematics must be satisfied by three semesters of college mathematics or a statistical sequence such as Statistics 250, 350A, 350B (highly recommended); or Political Science 201*, 515, 516; or Sociology 201*, 406*, 407*.

* Additional prerequisites required.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Communication 310W or Rhetoric and Writing Studies 305W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Communication 300 and 350 ; nine units selected from Communication 440, 460, 480, Journalism 300; 12 units selected from the following Media courses: Communication $375,408,409,483,502,505,506,508,574$, 575, 591; and nine units selected from the following Perspectives courses: Communication $355,420,450,452,545,580,592$. Students selecting the media studies specialization are required to complete a minor.

## OPTION 2:

## Professional Communication Emphases

The professional communication emphases provide in-depth study of mediated and non-mediated human communication in professional contexts. To accommodate a broad range of student interests and professional aspirations, the major includes two emphases that are impacted programs. The professional communication major B.A. degree in liberal arts and sciences requires the foreign language competency requirement. A minor or concentration of upper division courses in an approved department outside of the School of Communication is required in this major.

Students in the professional communication emphases study theory, principles, skills, and experience needed to work in advertising, public relations, media management, and telecommunications. Advertising graduates are employed in advertising agencies and marketing departments; as media advertising sales representatives; and in sales, sales promotion, and sales management positions. Public relations graduates work as media relations specialists and strategic planners in public relations departments and firms, as internal and external communication specialists in corporations, as public information specialists in government agencies and the military, and in fundraising and membership development for not-for-profit organizations.

## Emphasis in Advertising <br> With the B.A. Degree in Liberal Arts and Sciences (Major Code: 06041)

To complete the advertising emphasis, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Impacted Program. The advertising emphasis is designated as an impacted program. To be admitted to the advertising emphasis, students must meet the following criteria:
a. Complete with a minimum grade point average of 3.0 and a grade of C or higher: Communication 200, Economics 101, Journalism 220, and Political Science 101, 102. These courses cannot be taken for credit/no credit (Cr/NC);
b. Achieve a minimum score of 80 on the Grammar, Spelling and Punctuation test by the third attempt;
c. Complete a minimum of 45 baccalaureate level semester units and a maximum of 90 semester units. (A minimum of 60 units are required for all transfer applicants.);
d. Have a cumulative grade point average of 3.0 or higher.

Applicants not meeting the above minimum requirements may petition for admission to the advertising emphasis. See the School of Communication advising office for further information.

Preparation for the Major. Communication 200; Journalism 220; Economics 101; Political Science 101, 102. Some of these courses also may be used to fulfill lower division general education requirements. (15 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$ and must be completed with a minimum GPA of 3.0 and a grade of $C$ or higher in each class.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Students must have fulfilled the Writing Proficiency Assessment with a score of 8 or above before taking Communication 310W and earn a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Communication 300, 310W, 460, 461, 560, 565; three units from Journalism 300, Communication 440, 480; and nine units of upper division coursework in Communication or Journalism.

Allied Discipline. Students selecting the advertising emphasis are required to complete a minor in one of the following departments or nine units of approved upper division courses in one of the following allied disciplines: economics, management, marketing, political science, psychology, sociology, or other area approved by program coordinator. See department for list of approved courses.

## Emphasis in Public Relations <br> With the B.A. Degree in Liberal Arts and Sciences (Major Code: 05992)

To complete the public relations emphasis, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Impacted Program. The public relations emphasis is designated as an impacted program. To be admitted to the public relations emphasis, students must meet the following criteria:
a. Complete with a minimum grade point average of 3.0 and a grade of C or higher: Communication 200, Economics 101, Journalism 220, and Political Science 101, 102. These courses cannot be taken for credit/no credit (Cr/NC);
b. Achieve a minimum score of 80 on the Grammar, Spelling and Punctuation test by the third attempt;
c. Complete a minimum of 45 baccalaureate level semester units and a maximum of 90 semester units. (A minimum of 60 units are required for all transfer applicants.);
d. Have a cumulative grade point average of 3.0 or higher.

Applicants not meeting the above minimum requirements may petition for admission to the public relations emphasis. See the School of Communication advising office for further information.

Preparation for the Major. Communication 200; Journalism 220; Economics 101; Political Science 101, 102. Some of these courses also may be used to fulfill lower division general education requirements. (15 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$ and must be completed with a minimum GPA of 3.0 and a grade of C or higher in each class.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Students must have fulfilled the Writing Proficiency Assessment with a score of 8 or above before taking Communication 310W and earn a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Communication 300, 310W, 480, 481, 581, 585; three units from Journalism 300, Communication 440, 460; and nine units of upper division coursework in Communication or Journalism.

Allied Discipline. Students selecting the public relations emphasis are required to complete a minor in one of the following departments or nine units of approved upper division courses in one of the following allied disciplines: economics, management, marketing, political science, psychology, sociology, or other area approved by program coordinator. See department for list of approved courses.

## Journalism Major

## B.A. Degree in Liberal Arts and Sciences

## (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 education emphasizes the training of writers, reporters, and editors for the mass media. It also seeks to prepare and guide students interested in pursuing careers in a wide range of informational and interpretive multi-media environments. The courses offered in the journalism major are designed to give students a working knowledge of the skills, concepts, values, and ethics needed to succeed as competent professional communicators. They focus on the basic elements of factual and analytical writing, editing, communication law and theory, history, and responsibility in the mass media.

Career opportunities for journalism graduates are diverse, including book editing and publishing, freelance writing, industrial journalism, magazines, communication research, news agencies, newspapers, radio, television, teaching, and online electronic publishing.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment). Lower division activity/production courses in newspaper, magazine, yearbook, or broadcasting may not be applied toward the B.A. in journalism.

Impacted Program. The journalism major is designated as an impacted program. To be admitted to the journalism major, students must meet the following criteria:
a. Complete with a minimum grade point average of 3.0 and a grade of C or higher: Communication 200, Economics 101, Journalism 220, Political Science 101, 102. These courses cannot be taken for credit/no credit (Cr/NC);
b. Achieve a minimum score of 80 on the Grammar, Spelling and Punctuation test by the third attempt;
c. Complete a minimum of 45 baccalaureate level semester units and a maximum of 90 semester units. (A minimum of 60 units are required for all transfer applicants.);
d. Have a cumulative grade point average of 3.0 or higher.

Applicants not meeting the above minimum requirements may petition for admission to the journalism major. See the School of Communication advising office for further information.

Preparation for the Major. Communication 200; Journalism 220; Economics 101; Political Science 101, 102. Some of these courses also may be used to fulfill lower division general education requirements. (15 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$ and must be completed with a minimum GPA of 3.0 and a grade of C or higher in each class.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Students must have fulfilled the Writing Proficiency Assessment with a score of 8 or above before taking Communication 310W and earn a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Communication 300, 310W, 502; Journalism 300, 315, 420, 470; plus six units of upper division Journalism electives and three units from 300-, 400-, $500-\mathrm{level}$ Communication courses. A minor is required with this major.

## Advertising Minor

## (Minor Code: 06041)

The minor in advertising consists of 21 units to include Communication 200, 310W, 460, 461, 560, 565 and Journalism 220. Admission to the advertising minor requires completion of at least 45 units with a minimum grade point average of 3.0 overall; completion of Communication 200 and Journalism 220 with grades of $C$ (2.0) or better and a grade point average of 2.75 in these two courses; and a score of 80 on the Grammar, Spelling and Punctuation test by third attempt.

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.

## Communication Minor

## (Minor Code: 06011)

The minor in general communication studies consists of a minimum of 21 units to include six units selected from Communication 160, 200, 204; Communication 300; and 12 upper division units selected from Communication 305, 355, 360, 371, 406, 407, 415, 445, 450, 452, 471, 479, 483, 491, 503, 530, 545, 555, 571, 580, 583, 584, 589, 592. Admission to the communication studies minor requires completion of at least 45 units with a minimum grade point average of 2.75 overall; completion of the General Education Oral Communication requirement with a grade of $C$ (2.0) or better; and six units selected from Communication 160, 200, 204 with grades of $C$ (2.0) or better. The General Education oral communication course will not be included in the computation of the required grade point average of 2.75 .

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.

## Journalism Minor

## (Minor Code: 06021)

The minor in journalism consists of 21 units to include Communication 200, 310W, 502; Journalism 220, 300, 315, 420. Admission to the journalism minor requires completion of at least 45 units with a minimum grade point average of 2.75 overall; completion of Communication 200 and Journalism 220 with grades of C (2.0) or better and a grade point average of 2.75 in these two courses; and a score of 80 on the Grammar, Spelling and Punctuation test by third attempt.

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 Relations Minor

## (Minor Code: 05992)

The minor in public relations consists of 21 units to include Communication 200, 310W, 480, 481, 489, 585* and Journalism 220. Admission to the public relations minor requires completion of at least 45 units with a minimum grade point average of 3.0 overall; completion of

Communication 200 and Journalism 220 with grades of $C$ (2.0) or better and a grade point average of 2.75 in these courses; and a score of 80 on the Grammar, Spelling and Punctuation test by third attempt.

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.
*Communication 581 prerequisite waived.

## Courses

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES IN COMMUNICATION (COMM)

## COMM 90. Improving Speaking Confidence (1) $\mathrm{Cr} / \mathrm{NC}$ I, II

Two hours of activity.
Prerequisite: Must be taken prior to or concurrent with 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.

## COMM 103. Oral Communication (3) [GE] I, II,S

One lecture and two hours of recitation.
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 Chicana and Chicano Studies 111A.

## COMM 160. Argumentation (3) I, II

Argument as a form of discourse; organizing, supporting, presenting and refuting arguments in a variety of formats; evaluating argument, including common fallacies in reasoning.

## COMM 200. Introduction to Mass Communication (3)

Mass media and their interrelationships. Media and the consumer. Value and function of mass media in contemporary society. Problems and responsibilities.

## COMM 204. Advanced Public Speaking

Prerequisite: 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 Chicana and Chicano Studies 111A.

## COMM 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 COMMUNICATION (Intended for Undergraduates)

COMM 300. Conceptualizing Communication (3)
Prerequisite: Completion of 45 semester units.
Communication theory, concepts, principles, and practices. Communication as art and process on micro and macro levels, integrates understanding of sources, messages, transmission, and feedback in creating meaning and culture.

## COMM 301. Management of School of Communication

 Activities (1) Cr/NC I, IITwo hours of activity.
Prerequisite: Communication 103.
Planning, preparation, and supervision of speech tournaments and other interscholastic activities. Maximum credit two units.

## COMM 302. Contemporary Forensics Problems (2) $\mathrm{Cr} / \mathrm{NC} \mathrm{I}$,

Prerequisites: 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.

## COMM 305. Communication and Engagement

(3)

Prerequisite: Completion of 45 semester units.
Communication as an academic and professional discipline, its associations and journals, history and traditions, relationships to other disciplines, research methodologies, and careers for graduates.

## COMM 307. Communication in Professional Settings (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Communication principles in professional contexts including interviewing and technical and nontechnical oral presentations. Skill in meeting management.

## COMM 309A-309B. Workshop (1-3, 1-3) Cr/NC

Prerequisites: Communication 103, 204, and 305 or 307; and consent of instructor.

Practical experience in an area of study within the School of Communication. Maximum credit six units in any combination of Communication 309A and 309B.

## COMM 310W. Gathering and Reporting Information (3)

Two lectures and two hours of activity.
Prerequisite: Journalism 220 with grade of C (2.0) or better and a passing score on the Grammar, Spelling and Punctuation test. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Copy of transcript. Limited to majors and minors in Advertising, Journalism, and Public Relations, Major Codes: 06041, 06021, and 05992.

Information gathering and writing for mass communication in information age. Accessing online databases, records, and archives; observation; interviewing; and conducting literature reviews, writing presentations designed to inform, persuade, and instruct.

## COMM 350. Investigating Communication (3)

Prerequisite: Completion of 45 semester units.
Study of human communication, from methodological and epistemological perspectives.
COMM 355. Foundations of Critical and Cultural Study (3)
Prerequisites: Six units selected from Communication 300, 305, or 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Central concepts, examples, theories, and experiences of critical studies of communication in culture through cultural, rhetorical, and media literature and cases.

## COMM 360. Argumentation Theory (3)

Prerequisites: Communication 160; six units selected from Communication 300, 305, or 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Approaches to argument and the patterns and problems in argument. Consideration of implications for society. Written and oral reports.

COMM 371. Intercultural Communication (3) [GE] I, II
Prerequisites: 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 influence of cultural background, perception, social organization, language and nonverbal messages in the intercultural communication experience.
COMM 375. Infrastructure of the Information Age (3) I
Prerequisites: Communication 200. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Technologies and institutions critical to those responsible for communication and information in an information society. Practical experience with online computer activities.

## COMM 406. Organizational Communication (3)

Prerequisites: Six units selected from Communication 300, 305, or 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

The organization as a communication system; role of the organization in persuasive campaigns; communication strategies and problems within the organizational structure.

## COMM 407. Communicative Perspectives on Interviewing (3) <br> Prerequisites: Eighteen units of upper division coursework in the

 School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.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.

## COMM 408. Mass Communication and Society (3) [GE]

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.

## COMM 409. Women in Mass Communication (3)

Prerequisites: Upper division standing. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Role of women in mass communication including messages about women and employment status of women.
COMM 410. Theorizing and Modeling Communication (3)
Prerequisites: Six units selected from Communication 300, 305, or 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Survey, analysis, comparison, and development of models and theories of communication.

## COMM 415. Nonverbal Communication (3)

Prerequisites: Six units selected from Communication 300, 305, or 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Theory and research on nonverbal aspects of communication, with emphasis on codes and functions.

## COMM 420. Survey and Experimental Methods in Communication (3)

Prerequisites: Six units selected from Communication 300, 305, or 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Quantitative research in communication. Construction and analysis of surveys and experiments.

## COMM 421. Health Communication (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Analysis of how people understand, share ideas about, and adjust to health and illness. Personal, interactional, cultural, and political complexities of health beliefs, practices, policies.

## COMM 440. Principles of Media Management

Prerequisite: Upper division standing.
Revenue generation, marketing, production programming, social responsibilities, and current developments in mass media. Planning, organizing, actuating, and controlling in electronic media organizations.

## COMM 445. Relational Communication (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

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.

## COMM 450. Rhetorical Theory (3)

Prerequisites: Six units selected from Communication 300, 305, or 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Development of rhetorical theory as a mechanism for generating and understanding public discourse. Theories from ancient Greece to the present.

## COMM 452. Interaction and Gender (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Contemporary research and theory on communication and gender. Examination of gender as ongoing interactional achievement. Gender displays and myths across diverse relationships, institutions, media, and society.

## COMM 460. Principles of Advertising (3) I, II

Prerequisite: Upper division standing.
Concepts, history, theory, social responsibility, management, and regulation of advertising. Survey of advertising practices, including planning, consumer and market research, creative, and media.

## COMM 461. Advertising Creative Development (3) I

One lecture and four hours of activity.
Prerequisites: Communication 310W and 460 with grades of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript. Limited to Advertising majors and minors, Major Code: 06041.

Advertising creative philosophy, strategy, and tactics; art, copy, and creation of advertisements for broadcast, print, and interactive electronic media. Application of computers to creative development.

## COMM 471. Communication Among U.S. Cultures (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Effects of code systems, sociocultural forces, geographic influences, cultural patterns, ethnolinguistic identities, and acculturation experiences on interethnic and interracial relationships in the United States.

COMM 479. Organizational Communication Across Cultures (3)
Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Cultural and ethnic differences in management styles, communication patterns, intercultural negotiations, leadership techniques, conflict management, and work-related values in organizations.

## COMM 480. Principles of Public Relations (3) I, II

Prerequisites: Upper division standing. Admission to a major of minor in the School of Communication, and to Public Relations, Advertising, and Journalism premajors.

Concepts, history, theory, social responsibility, and management of public relations. Survey of problems and practices in corporations, government agencies, associations, and not-for-profit organizations.

## COMM 481. Public Relations Media and Methods <br> (3) I, II

One lecture and four hours of activity.
Prerequisites: Communication 310W and 480 with grades of $C$ (2.0) or better. Proof of completion of prerequisites required: Copy of transcript. Limited to Public Relations majors and minors, Major Code: 05992.

Practical applications of public relations techniques with emphasis on writing and media usage. News releases and media relations, print and electronic communications production, multi-media techniques, speeches, other audio-visual presentations, and special events. Field and laboratory practice.

## COMM 483. Communication in Virtual Reality (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Interpersonal, romantic, commercial, organizational, and entertainment implications of virtual environments.
COMM 489. Research Methods in Mass Communication (3)
Prerequisite: Credit or concurrent registration in Communication 440, 460, or 480.

Research methods for decision making in professional mass communication practices. Research settings, methods of observation, measurement, data analysis, interpretation, research reports, and application of research findings.

## COMM 490A-490B. Internship (1-3, 1-3)

## (490A = Cr/NC;490B = letter grade)

Prerequisites: See Class Schedule for prerequisites specific to your area of study. Internship contract must be completed prior to registration.

Students work at approved agencies off-campus under the combined supervision of agency personnel and instructors. Maximum credit three units for Communication 490A-490B.

## COMM 491. Group Interaction (3)

Prerequisites: Six units selected from Communication 300, 305, or 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Research, theory, observation of group emergence, development, relationships, interaction, and decision making across diverse settings.

## COMM 493. Ethnography and Communication (3)

Prerequisites: Six units selected from Communication 300, 305, or 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Naturally occurring interactions drawn from a variety of communication settings. Primary methods of gathering data include: participant observation, interviewing, document and artifact analysis, and other forms of communication.

COMM 496. Experimental Topics (1-4)
Experimental 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.

## COMM 499. Special Study (1-3)

Prerequisites: See Class Schedule footnotes for prerequisites specific to your area of study. Special study contract required prior to enrollment.

Approved individual study, project or research under supervision of faculty member. Maximum credit three units.

## UPPER DIVISION COURSES IN COMMUNICATION <br> (Also Acceptable for Advanced Degrees)

COMM 502. Law of Mass Communication (3)
Prerequisites: Communication 200 or Political Science 102, and upper division standing.

Libel, invasion of privacy, censorship, contempt of court, pornography. Constitutional guarantees affecting print and broadcast media. Government restrictions.

## COMM 503. Instructional Communication (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

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.
COMM 505. Government and Telecommunications (3) II
Prerequisites: Twelve upper division units in communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Responsibilities of telecommunication organizations as prescribed by law, government policies and regulations, and significant court decisions.
COMM 506. Advertising and Society (3)
Prerequisites: Six upper division units in School of Communication courses.

Theoretical and philosophical analysis of advertising in modern society.

## COMM 508. Media Literacy (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Role played by video texts in shaping culture including information distribution, entertainment, and socio-cultural influence exercised by television. Emphasis on audience/medium relationship and to developing critical skills.

## COMM 530. Conversational Interaction (3)

Prerequisites: Six units selected from Communication 300, 305, or 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Sequential organization of naturally occurring conversational practices. Reliance on recordings and transcriptions for detailed examinations of interactants' methods for achieving social actions and organizing interactional occasions.

## COMM 540. Media Management Research (3)

Two lectures and two hours of activity.
Prerequisites: Communication 310W and 440 with grades of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.

Applying research in cable, film, radio, television and telecommunications management. Designs, methodologies, analyses, applications of audience, programming, and advertising research.

COMM 545. Communication and Rhetorical Movements (3)
Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Historical perspective of role of communication in social change in rhetorical movements and social change.

## COMM 555. Conflict Management Communication (3)

Prerequisites: Six units selected from Communication 300, 305, or 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Approaches to conflict communication in international, societal, group, institutional, and interpersonal contexts. (Formerly numbered Communication 455.)

## COMM 560. Advertising Research (3) I

Prerequisites: Communication 310 W and 460 with grades of $C$ (2.0) or better. Proof of completion of prerequisites required: Copy of transcript. Limited to advertising majors and minors, Major Code: 06041.

Systematic application of quantitative and qualitative research to planning, design, and management of advertising campaigns. Cases, practices, and problems in application of research to consumer, market analysis, positioning, creative selection, media planning, and campaign evaluation.
COMM 565. Advertising Campaigns (3) II
Prerequisites: Communication 461 and 560 .
Planning and creation of advertising campaigns including situation analysis and strategy, advertising and marketing objectives, consumer analysis and target audience selection, creative development, media strategy and tactics, sales promotion, and campaign evaluation.
COMM 571. Intercultural Communication Theory (3)
Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Theories of cross-cultural and intercultural communication, including ethnic identity, communication competence, and cultural values.
COMM 574. International Advertising (3)
Prerequisites: Six upper division units in School of Communication courses.

Comparative cultural, economic, legal, political, and social conditions relevant to international advertising. Not open to students with credit in Communication 474.
COMM 575. Technological Trends in Telecommunication (3)
Prerequisite: Admission to a major or minor in the School of Communication. Proof of completion of prerequisite required: Copy of transcript.

Developments and trends in telecommunication and related technology, with implications for the future. Practical experience with online computer activities.

## COMM 580. Communication and Politics (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Contemporary political communication events and processes, with a focus on speeches, debates, and campaigns.
COMM 581. Public Relations Research
(3)

Two lectures and two hours of activity.
Prerequisites: Communication 310W and 480 with grades of C (2.0) or better. Proof of completion of prerequisites required: Copy of transcript. Limited to public relations majors and minors, Major Code: 05992.

Qualitative and quantitative methods used in evaluation research to plan, track, and evaluate public relations programs. Computerized statistical analysis.

COMM 583. Medical Interaction (3)
Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Theoretical and applied approaches to health communication including interactional patterns among doctors, nurses, patients, family members, therapists, counselors, and clients.

## COMM 584. Legal Interaction (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Interactional patterns among judges, lawyers, witnesses, juries, and related legal personnel. Implications for understanding constraints on exchange within institutional interaction and social justice as a practical accomplishment.
COMM 585. Professional Practices in Public Relations (3)
Prerequisites: Communication 481 and 581.
Advanced cases in public relations management. Theory and practice of issues management, integration of the public relations function in strategic management in a variety of corporate, governmental, nonprofit, social, and cultural organizations.

## COMM 589. Ethical Issues in Communication (3)

Prerequisites: Six units selected from Communication 300, 305, or 350. Admission to a major or minor in the School of Communication. Proof of completion of prerequisites required: Copy of transcript.

Classical and modern ethical concepts and issues in communication.

## COMM 591. International Telecommunications (3) I

Prerequisite: Admission to a major or minor in the School of Communication. Proof of completion of prerequisite required: Copy of transcript.

Comparative study of economic, social, political determinants of broadcasting, and telecommunication systems around the world.

## COMM 592. Persuasion (3)

Prerequisite: Admission to a major or minor in the School of Communication. Proof of completion of prerequisite required: Copy of transcript.

Key variables and theories in the persuasion process: persuasive sources, messages, receiver variables, propaganda, brainwashing, cognitive, behavioral, and social theories of persuasion.
COMM 596. Selected Topics (1-4)
Prerequisite: Senior standing or above.
Specialized study in 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 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.

## LOWER DIVISION COURSE IN JOURNALISM (JOUR)

JOUR 220. Writing for the Mass Media (3)
One lecture and four hours of activity.
Prerequisites: Sophomore standing; ability to type; and a passing score on the Grammar, Spelling and Punctuation test. Proof of completion of prerequisites required: Grammar, Spelling and Punctuation test score and proof of sophomore standing.

Introduction to writing techniques for mass media. Laboratory practice in informational and persuasive writing, evaluation, and judgment.

## UPPER DIVISION COURSES IN JOURNALISM (Intended for Undergraduates)

NOTE: PROOF OF COMPLETION of prerequisites required for all upper division courses: Grammar, Spelling and Punctuation test score as applicable and copies of transcripts.

## JOUR 300. Principles of Journalism (3)

Prerequisites: Upper division standing. Admission to a major or minor in the School of Communication, and to Journalism, Advertising, and Public Relations premajors.

Theory and practice of journalism, survey of history, ethics, law, international news systems, and social responsibility of the press. Operations of newspapers, news magazines, radio and television news departments, and other news agencies. Impact of new media and technology on journalism, economics, and management of news organizations.

## JOUR 315. News Writing and Editing (3) I, II

One lecture and four hours of activity.
Prerequisites: Communication 200 and Journalism 220 with minimum grades of $C$ (2.0) in each course; upper division standing; credit or concurrent registration in Journalism 300 and Communication 310W. Limited to journalism majors and minors; Major Code: 06021.

Specialized writing and editing techniques for news media. Field and laboratory practice.

## JOUR 420. Public Affairs News Reporting (3) I

One lecture and four hours of activity.
Prerequisites: Journalism 300, 315, and Communication 310W, with minimum grades of $C$ (2.0) in each course; upper division standing. 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.

## JOUR 425. Editorial and Critical Writing (3)

Prerequisites: Journalism 420; upper division standing. Limited to journalism majors and minors; Major Code: 06021.

Principles and practices in editorial and critical writing. Editorials, columns and commentary. Analysis and interpretation.

## JOUR 441. Magazine Article Writing (3) I, II

Prerequisite: Journalism 420.
Planning, gathering material, writing and marketing articles for specialized and general publications. Production of expository articles and marketing of at least one.

## JOUR 470. Radio-Television News Writing and Editing (3) I, II

One lecture and four hours of activity.
Prerequisites: Journalism 300, 315, and Communication 310W, with minimum grades of $C$ (2.0) in each course; upper division standing. Limited to journalism majors and minors; Major Code: 06021.

Application of radio and television news writing principles and techniques. Emphasis in news script writing using audio and video.
JOUR 490. Internship in Journalism (1-3) Cr/NC
Prerequisites: Upper division standing; consent of instructor; and Journalism 420.

Supervised work at news media organizations under the combined direction of practitioners and professors. Maximum credit three units.

## JOUR 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.

## JOUR 499. Special Study (1-3)

Prerequisites: Upper division standing and consent of instructor. Individual study or project, normally in a research area selected by the student. Maximum credit three units.

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

## JOUR 529. Investigative Reporting (3)

One lecture and four hours of activity.
Prerequisites: Journalism 420 with minimum grade of $C$ (2.0); upper division standing. Limited to journalism majors and minors; Major Code: 06021.

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.

JOUR 530. Management of News Organizations (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.

## JOUR 550. News Production (3)

One lecture and four hours of activity.
Prerequisites: Journalism 420 with minimum grade of $C$ (2.0). Limited to journalism majors and minors; Major Code: 06021.

News production principles and techniques. Field and laboratory practice.

## GRADUATE COURSES Refer to the Graduate Bulletin.

Communicative Disorders - Refer to "Speech, Language, and Hearing Sciences" in this section of the catalog.
Community Health Education - Refer to "Public Health" in this section of the catalog.

# Comparative Literature 

## In the College of Arts and Letters

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## 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 language arts.
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 a 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, and Japanese literature and film. 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 language arts. 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Comparative Literature Major

## With the B.A. Degree in Liberal Arts and Sciences (Major Code: 15031)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in comparative literature and English courses can apply to the degree.

A minor is not required with this major.
Preparation for the Major. Comparative Literature 210, 270A, 270B. (9 units)

Language Requirement. Plan I: Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

## Plan II: See below.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English $508 \mathrm{~W}, 581 \mathrm{~W}, 584 \mathrm{~W}$ or Rhetoric and Writing Studies 500W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. Plan I: General literature. For students who do not 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 ( $\mathrm{A}, \mathrm{B}$, 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 30 upper division units to include 18 units in one of the three areas ( $\mathrm{A}, \mathrm{B}$, and C ) below; six units in a foreign language literature (read in the original language); and six units in another literature (which may be British 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 $512,513,514$.
2. Up to six units in other, variable-content comparative literature courses with appropriate content approved by the departmental adviser.
3. Up to six units from Art 371, 557, 558, 559, 573A, 573B, 575; Classics 310, 320, 330; History 407, 408, 440, 504, 505, 506, 507, 510, 512A, 512B, 528; Humanities 401, 402, 403, 404; Music 351A, 351B; Philosophy 412, 413, 414, 506, 508; Political Science 301A, 301B, 302; and Religious Studies 318.
B. Asian, African, and Latin American Literature. Eighteen units selected from the following:
4. Comparative Literature 440, 445, 460, 530.
5. Up to six units in other, variable-content comparative literature courses with appropriate content approved by the departmental adviser.
6. Up to six units from Anthropology 442; Asian Studies 458, 459, 596 (with appropriate content approved by the departmental adviser); History 415, 416, 420, 421, 473, 474, 475, 476, 558; Humanities 460; and Religious Studies 340, 401, 403.
C. Comparative Literary Theory (Theory of literature, genre study, literature in relation to other arts and disciplines).
Eighteen units selected from the following:
7. Comparative Literature $561,562,563,580,594,595$.
8. Up to six units in other, variable-content comparative literature courses with appropriate content approved by the departmental adviser.
9. Up to six units from English 493, 570, 571, 573; Music 592; Philosophy 334, 541, 542; Theatre 460A, 460B; and Women's Studies 352, 553.

## Comparative Literature Major

In preparation for the Single Subject Teaching Credential in English Language Arts
With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15031)

> The comparative literature major in preparation for the single subject teaching credential in English language arts has been submitted to the California Commission on Teacher Credentialing for approval.
> Contact the department for additional information.

Requirements listed here are for the fulfillment of the comparative literature major in preparation for the single subject teaching credential in English language arts. All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education. Completion of this major also fulfills 21 units of the General Education program. A minor is not required with this major.

Preparation for the Major. (33 units) 18 units fulfills General Education.

1. Rhetoric and Writing Studies 100 and 200
(General Education I. 1 and 2)
2. Communication 103 (General Education I. 3)
3. Comparative Literature 270A and 270B (6 units-3 units General Education II. C.1)
4. Communication 200
5. Humanities 140 or Theatre 120 (General Education II.C.2)
6. Linguistics 101 (3 units General Education II.B) (Linguistics 420 may be substituted)
7. English 250A and 250B or 260A and 260B (6 units)
8. English 280 or 281

Early Field Experience Requirement. Certification of early field experience required.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Students must have fulfilled the Writing Proficiency Assessment with a score of 8 or above before taking English 308W or Rhetoric and Writing Studies

500 W with a grade of $C$ (2.0) or better (see \#9 in major). See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. (45 units) Fulfills three units General Education. Courses within major cannot be double-counted.
9. English 308W or Rhetoric and Writing Studies 500W.
10. English 502.
11. English 533.
12. For those who took English 250A-250B (American literature survey) select six units from English 536 or 542; and English 543 or 544. (6 units)
For those who took English 260A-260B (British literature survey) select six units from English 521, 522, 523, 524, 525. (6 units)
13. Comparative Literature 562 or Theatre 310.
14. Comparative Literature 561,562 , or 563 (no duplication with \#12).
15. Four courses selected from Comparative Literature major, Plan II, Options A, B, or C (12 units).
16. Linguistics 430 or 530 .
17. Linguistics 452 or 550 .
18. Rhetoric and Writing Studies 509.
19. Diversity literature course: Three units selected from Africana Studies 365A, 365B, 460, 463, 464, American Indian Studies 430, Chicana and Chicano Studies 335, Theatre 465, Women's Studies 352 (General Education IV.C) (also acceptable but non-General Education: Comparative Literature 440, 445, 460, 470).

Consult with English honors program adviser for honors program variation.

## 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 512, 513, 514.
Asian, African, and Latin American Literature: Comparative Literature 440, 445, 460, 530.

Comparative Literary Theory (Theory of literature, genre study, literature in relation to other arts and disciplines): Comparative Literature 561, 562, 563, 580, 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 in residence at San Diego State University.

## Courses (c lt)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## C LT 210. Introduction to Comparative Literature (3)

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.

## C LT 270A-270B. World Literature (3-3) [GE] I, II

Comparative study of selected major works from various continents and cultures, with emphasis on 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.

## C LT 296. Topics in Comparative Literature <br> (3)

Introduction to 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)

## C LT 405. The Bible as Literature (3) [GE] 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.
C LT 440. African Literature (3) [GE]
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.
C LT 445. Modern Latin American Literature (3) [GE]
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Reading selections from major Latin American authors.
C LT 455. Classical Asian Literature (3) [GE]
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.
C LT 460. Modern Asian Literature (3) [GE]
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.

## C LT 470. Folk Literature (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for non-majors.

Studies in the ballad, bardic poetry, oral and popular literature and folklore.

## C LT 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.

## C LT 499. Special Study (1-3) Cr/NC I, II

Prerequisites: Consent of instructor and approval of department chair.

Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

## (Also Acceptable for Advanced Degrees)

Prerequisite for all 500-level courses: Six units in literature or three units in literature and three units in a related area appropriate to the course in question.
C LT 512. European Literature Before 1800 (3)
Study of a literary period such as the Middle Ages, Renaissance, or Enlightenment. May be repeated with new content. Maximum credit six units.

## C LT 513. Nineteenth Century European Literature (3)

European literature of the nineteenth century or of a more limited period within that century. May be repeated with new content. Maximum credit six units.

## C LT 514. European Literature Since 1900 (3)

Study of a literary period such as the Age of Modernism. May be repeated with new content. Maximum credit six units.
C LT 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.

## C LT 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.

## C LT 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.

## C LT 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.

## C LT 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.

## C LT 577. Major Individual Authors (3)

In-depth study of the works of a major author, such as Dante, Murasaki, or Dostoyevsky. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

## C LT 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.

## C LT 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 a bachelor's degree. Maximum credit six units applicable to the M.F.A. degree in creative writing.

## C LT 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.

## C LT 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 Engineering 

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E-MAIL: compe@engineering.sdsu.edu

## In the College of Engineering

The undergraduate degree in Computer Engineering is accredited by the American Board for Engineering and Technology.

## Faculty

Emeritus: Iosupovici, Marino, Panos
Chair: Tummala
Coordinator for Computer Engineering:
Professors: Gupta, harris, f., Harris, J., Lee, Tummala
Associate Professor: Ozturk
Assistant Professor: Chandramani

## Offered by the Department of Electrical and Computer Engineering

Master of Engineering in manufacturing and design. Major in computer 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 American Board for Engineering and Technology, 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. No more than 12 units may be used for General Education credit from any one department or academic unit. No more than 7 units from one department can be used in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).
I. Communication and Critical Thinking: 9 units

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

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)
II. Foundations: 29 units
A. Natural Sciences and Quantitative Reasoning (17 units):
4. Physical Sciences (7 units)

Physics 195 (3 units)
Physics 196 and 196L (4 units)
2. Life Sciences (3 units)
3. Laboratory (satisfied under A.1. above)
4. Mathematics/Quantitative Reasoning

You may not use Credit/No Credit grades.
Mathematics 150 (3 units)
Mathematics 151 (4 units)
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: Courses in this area must not be taken sooner than the semester in which you achieve upper division standing (60 units passed). Upper division courses in the major department may not be used to satisfy General Education. Total 9 units; must include one course of cultural diversity.
A. Upper division Humanities (3 units)

Three units must be taken from the same department as one of the Humanities courses selected in Foundations.
B. Upper division Humanities (3 units from a department not selected in A above.)
C. Upper division Social and Behavioral Sciences (3 units)

## The Major

Computers are machines that store and process information. Desktop computers, portables, workstations, and mainframe computers are the most readily recognized examples of such devices. Equally important, however, are the millions of tiny computers (microprocessors) that are embedded in machines, instruments, and products of all sorts. For example, there are embedded computers in VCRs, cameras, telephones, CD players, tape players, televisions, washing machines, ovens, robots, automobiles, airplanes, medical instruments, toys, and many other devices, both familiar and exotic.

Computer Engineers are involved in the design, development, manufacture, installation, and operation of general purpose and embedded computers of all sorts. They are both concerned with hardware (i.e., the electronic circuits and devices that actually store and process information) and software (i.e., the programs that control the operation of the hardware). The B.S. degree program in Computer Engineering provides a solid foundation in the fundamentals of mathematics, science, computer hardware, computer software, and engineering design that are needed to practice the profession or to pursue a graduate degree in the field.

In addition to fundamentals, the curriculum also includes training in the areas of rapid growth that are important to modern practice of computer engineering. These include: Very Large Scale Integrated Circuits design (i.e., the design of electronic circuits implemented on silicon chips); Multimedia Systems (i.e., systems that process audio and visual information as well as text and numbers); Embedded Systems; Digital Signal Processing (DSP), which plays a vital role both in processing the continuous signals that are common in embedded system applications and in compressing and processing the large volumes of information that are common in multimedia systems; Computer Networks, which have become vital for connecting multiple computers in distributed control applications, and connecting users of general purpose computers who wish to share information and computing resources (e.g., Local Area Networks, the Internet); Graphical User Interfaces (GUIs), which are rapidly replacing textbased interfaces in nearly all applications; and Object Oriented Programming (OOP), a technique for designing more reliable and maintainable software.

The computer engineering curriculum provides a balance between theory and practice that prepares the graduate both for immediate employment and for continued study. The process of engineering design is emphasized throughout the curriculum by including open-ended problems with realistic design constraints. Creativity, consideration of economic and social factors, and the application of systematic design procedures are required in major design projects during the senior year.

The following is a recommended sequence of courses for the major in computer engineering. See General Education in this section for specific GE requirements.

## COMPUTER ENGINEERING MAJOR

## FRESHMAN YEAR

| Fall Semester | Units | Spring Semester | Units |
| :---: | :---: | :---: | :---: |
| GE Composition | 3 | GE Intermediate Composition | 3 |
| GE Math / Mathematics 150, Calculus I | 4 | GE Oral Communication . | 3 |
| GE Life Science. | 3 | COMPE 160, Intro. to Computer Prog | 3 |
| GE Social Science. | 3 | Mathematics 151, Calculus II... | 4 |
| GE Humanities | 3 | Physics 195, Principles of Physics | 3 |
|  | 16 |  | 16 |

## SOPHOMORE YEAR

| Fall Semester | Units | Spring Semester | Units |
| :---: | :---: | :---: | :---: |
| GE Humanities | 3 | Take the Writing Proficiency Assessment Examination |  |
| COMPE 270, Digital Systems. | 3 | COMPE 260, Data Structures and Object- |  |
| Engineering 280, Methods of Analysis. | 3 | Oriented Programming . | 3 |
| Mathematics 245, Discrete Mathematics ...... | 3 | COMPE 271, Computer Organization .. | 3 |
| Physics 196, 196L Principles of Physics | 4 | Mathematics 254, Intro. to Linear Algebra E E 210, Circuit Analysis I. GE Humanities | 3 <br> 3 <br> 3 |
|  | 16 |  | 15 |


| JUNIOR YEAR* |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall Semester | Units | Spring Semester | Units |
| COMPE 375, Embedded Systems Prog. | 3 | COMPE 361, Windows Programming | 3 |
| COMPE 470, Digital Circuits | 3 | COMPE 470L, Digital Circuits Lab. | 1 |
| E E 300, Comp. and Stat. Methods. | 3 | E E 410, Signals and Systems. | 3 |
| E E 310, Circuit Analysis II | 3 | Technical Elective+ | 3 |
| E E 330, 330L, Fund. Engr. Electronics | 4 | GE Explorations. | 6 |
|  | 16 |  | 16 |


| SENIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall Semester | Units | Spring Semester | Units |
| COMPE 460, Software Design and Engr. | 3 | Technical Electives+ | 6 |
| COMPE 475, Microprocessors... | 3 | COMPE 490, Senior Design Project . | 4 |
| Technical Electives+ | 9 | GE Explorations...... | 3 |
| American Institutions. | 3 | American Institutions. | 3 |
|  | 18 |  | 16 |

[^15]
## Educational Objectives

The overall objective of the undergraduate program in computer engineering is to produce the best skilled, hands on practicing computer engineer. More specifically the objectives are:
A. To provide students with the technical knowledge and skills that will enable them to have a successful career in the computer engineering profession;
B. To provide students with a general education that will enable them to appreciate the social, ethical, economic, and environmental dimensions of problems they may face;
C. To develop in students the communication skills and social skills that are necessary to work effectively with others;
D. To develop the ability of students to solve problems by learning what is already known, and then applying logic and creativity to find a solution;
E. To provide students with the intellectual skills necessary to continue learning and to stay current with the profession as it changes.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Computer Engineering Major

## With the B.S. Degree (Major Code: 09094)

The program below describes the 129 units required for the degree.

Preparation for the Major. Computer Engineering 160, 260, 270, 271; Electrical Engineering 210; Engineering 280; Mathematics 150, 151, 245, 254; Physics 195, 196, 196L. (39 units)

General Education. Engineering students must follow the specific General Education program outlined on this page. Other General Education requirements and limitations, as well as listings of specific General Education course electives are presented in Section IX of Graduation Requirements for the Bachelor's Degree. (Forty-nine units, including 14 units from preparation for the major which count toward General Education credit, and three units of American institutions which count toward General Education credit.)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 51 upper division units to include Computer Engineering 361, 375, 460, 470, 470L, 475, 490; Electrical Engineering 300, 310, 330, 330L, 410; one approved elective course in mathematics (3 units); three engineering design elective courses selected from Computer Engineering 560, 561, 565, 572, Electrical Engineering 530, $539,556,581$ or other approved elective ( 9 units); two approved technical elective courses in computer engineering, computer science, or electrical engineering (6 units). After enrollment in Computer Engineering at SDSU, the Computer Engineering major must take all upper division computer science and engineering courses at SDSU unless prior approval is obtained from the department.

Master Plan. A master plan of elective courses must be approved by the faculty adviser and department chair and filed with the Office of Advising and Evaluations during the first semester of the junior year. Changes to the master plan are permitted at any time, with approval of the department chair.

## Courses (сомPE)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

NOTE: Prerequisites will be enforced in all undergraduate computer engineering and electrical engineering courses numbered 100 through 599. A copy of an official transcript will be accepted as proof. For corequisites, an enrollment confirmation form will be accepted.

Any course at the 300 level or below must be passed with a grade of C - or better in order to be used as a prerequisite for any subsequent course.

## LOWER DIVISION COURSES

COMPE 160. Introduction to Computer Programming (3) I, II
Two lectures and three hours of laboratory.
Prerequisite: Mathematics 150.
Computer organization and operation. Binary representation of information. Fundamentals of computer programming using a C family language: data types, selection and iteration structures, functions, arrays, pointers, scope and duration of variables. Systematic design and development of computer programs.

## COMPE 260. Data Structures and Object-Oriented Programming (3)

Prerequisites: Computer Engineering 160 and Mathematics 245.
Data structures using object-oriented programming. Disciplined approach to design, coding, and testing using OOP, teach use and implementation of data abstractions using data structures. Arrays, linked lists, stacks, queues, trees. Sorting, searching, recursive algorithms.

## COMPE 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.
COMPE 271. Computer Organization (3) I, II
Prerequisites: Computer 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.

## UPPER DIVISION COURSES (Intended for Undergraduates)

COMPE 361. Windows Programming (3) II
Prerequisites: Computer Engineering 260 and 271.
Graphical user interface programming: Dialog boxes, menus, toolbars, status bars, fonts, icons, bitmaps. Event-driven programming, processes, event message processing, timers, on-idle processing, multithreaded programming. C++ windows class libraries: Integrated development environments, application framework, document view architecture. Visual programming.
COMPE 375. Embedded Systems Programming (3)I
Two lectures and three hours of laboratory.
Prerequisite: Computer Engineering 271.
Embedded system architecture; IO programming using parallel ports, serial ports, timers, and D/A and A/D converters; interrupts and real-time programming; program development and debugging tools; C language and assembler.
COMPE 460. Software Design and Engineering (3) I
Prerequisites: Computer Engineering 260 and 361.
Software design and engineering using object-oriented concepts. Object-oriented software development, classes, inheritance, design by abstraction, design patterns, object-oriented application framework, and introduction to concurrent and distributed computing. Application through design case study.

## COMPE 470. Digital Circuits (3) I

Prerequisite: Computer Engineering 270.
Design of digital electronic systems using commercially available high-speed digital devices and circuits.

## COMPE 470L. Digital Logic Laboratory (1) I, II

Three hours of laboratory.
Prerequisites: Computer Engineering 470 and Electrical Engineering 330L.

Hands-on experience in characterization and application of standard digital integrated circuit devices.
COMPE 475. Microprocessors (3) I
Prerequisites: Computer Engineering 375 and 470.
Bus design, memory design, interrupt structure, and input/output for microprocessor-based systems.

## COMPE 490. Senior Design Project (4) I, II

Two lectures and six hours of laboratory.
Prerequisites: Computer Engineering 460, 470L, 475.
Supervised capstone design projects to provide an integrative design experience for seniors to include ethics, professionalism, costeffectiveness, and project management.

## COMPE 496. Advanced Computer Engineering Topics (1-3)

Prerequisite: Consent of instructor.
Modern developments in computer engineering. See Class Schedule for specific content. Maximum credit nine units for any combination of Computer Engineering 496 and 596 applicable to a bachelor's degree.
COMPE 499. Special Study (1-3) I, II
Prerequisite: Approval of project adviser and department chair. Individual study. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

## COMPE 560. Computer and Data Networks (3)

Two lectures and three hours of laboratory.
Prerequisites: Computer Engineering 271 and Electrical Engineering 410.

Wide area and local area networks. Multi-layered protocol models, telephone systems, modems, and network applications.

## COMPE 561. Windows Database and Web Programming

Prerequisite: Computer Engineering 361.
Programming applications involving file systems, relational databases, Structured Query Language (SQL), ADO.NET, client-server architecture, multithreading sockets, web servers, web browsers, web services, ASP.NET, Hypertext Markup Language (HTML), and Extensible Markup Language (XML).

## COMPE 565. Multimedia Communication Systems (3)

Prerequisite: Credit or concurrent registration in Computer Engineering 560.

Design and implementation of multimedia communication systems. Image compression, JPEG, VQ, cell-B standards. Video and audio compression standards, MPEG, MPEG-2, H.26X, G.72X. Data storage systems and multimedia requirements. Networking requirements and networks as multimedia carriers. Transport and network protocols for carrying multimedia over data networks. Multimedia system design, scheduling, congestion control, traffic shaping, buffer management.

## COMPE 572. VLSI Circuit Design (3) I

Prerequisites: Computer Engineering 271 and Electrical Engineering 330.

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.

## COMPE 596. Advanced Computer Engineering Topics (1-3) I, II

Prerequisite: Consent of instructor.
Modern developments in computer engineering. See Class Schedule for specific content. Maximum credit of nine units for any combination of Computer Engineering 496 and 596 applicable to a bachelor's degree. Maximum combined credit of six units of Computer Engineering 596 and 696 applicable to a 30-unit master's degree.

# Computer Science 

## OFFICE: Geology/Mathematics/Computer Science 413 <br> TELEPHONE: 619-594-6191 <br> http://www.cs.sdsu.edu

The B.S. degree in Computer Science is accredited by the Computing Accreditation Commission of ABET, Inc.

## Faculty

Emeritus: Anantha, Baase-Mayers, Donald, Marovac, Vinge
Chair: Beck
Professors: Beck, Carroll, Stewart, Swiniarski, Tarokh, Vuskovic
Associate Professors: Eckberg, Valafar, Whitney
Assistant Professors: Lewis, Roch
Lecturers: Bajic, Riggins
Adjunct: Root, Thomas

## Offered by the Department

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
Certificate in geographic information 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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.

## In the College of Sciences

Preparation for the Major. Computer Science 107, 108, 237; Mathematics 150, 151, 245, 254; Statistics 250; and 12 units of science courses selected with approval of a computer science adviser. The science courses must include one of the following two-semester sequences with laboratory: Physics 195, 195L, 196, 196L; or Chemistry 200, 201; or Biology 201A, 201B. The remaining coursework to complete 12 units must be science courses or courses that enhance the student's ability to apply the scientific method. (38 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 37 upper division units to include Computer Science 310, 320, 370, 440, 490, 530, 560, 570; at least one course selected from Mathematics 541, 579, Statistics 350A, 550, or 551A; and 12 units of computer science electives selected with the approval of a computer science major adviser. At least nine units of electives must be in computer science.

Master Plan. A master plan of the courses taken to fulfill the major must be approved by a major adviser and filed with the Office of Advising and Evaluations.

## 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 in residence at San Diego State University.

## Geographic Information Science Certificate*

The purpose of the program is to prepare students to acquire, manage, and visualize geospatial data in public and private organizations. Students must apply for admission to the program before the completion of 12 certificate units and must complete the required units with a 2.5 grade point average.

The certificate requires 27 units distributed between the departments of Computer Science and Geography as follows: 12-15 units selected from Computer Science 105, 107, 108, 220, 310, 320, 503, $514,520,535,551,575$, and 12-15 units selected from Geography 104, 381, 484, 581-589. Courses with relevant content (e.g. Computer Science 596 or Geography 596) may be substituted for the computer science and geography courses with the approval of the certificate adviser. Courses in the certificate may be counted toward the major in computer science if applicable.

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## Courses (Cs)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

CS 100. Fundamental Ideas in Computer Science (3) [GE]
Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.

Capabilities and applications of computers. Algorithmic problemsolving methods and computer programming. Using computers to examine questions from other fields of study. Practical and theoretical limits to computation. Machine intelligence and heuristic problem solving. Social and legal impact of computers.

## CS 105. Visual Basic Programming (3)

Programming and problem solving using Visual Basic programming language on the PC. Applications to GIS, computer games.

## CS 106. Introduction to Computer Programming with FORTRAN (3)

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.

Introduction to problem solving on a computer, design of algorithms, and use of FORTRAN language. Extensive programming.

## CS 107. Introduction to Computer Programming (3) I, II

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.

Programming methodology and problem solving. Basic concepts of computer systems, algorithm design and development, data types, program structures. Extensive programming in Java.
CS 108. Intermediate Computer Programming (3) I, II
Prerequisites: Qualification on the Mathematics Departmental Placement Examination, Part IA; and Computer Science 107.

Further training in program design and development. Introduction to data structures: stacks, queues, linear lists, trees, sets, and recursion. Extensive programming in Java.

## CS 205. Introduction to Computational Programming and Visualization (3)

Prerequisite: First semester calculus (either Mathematics 120 or 121 or 150).

Problem solving skills for needs of science. Use of computing and software tools of computational science introduced to gain competence in computer communications, programming and visualization. Supervised computer laboratory.

## CS 220. UNIX and the C Programming Language

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.
CS 237. Machine Organization and Assembly Language (3) I, II Prerequisite: Computer Science 108.
General concepts of machine and assembly language, data representation, looping and addressing techniques, arrays, subroutines, macros. Extensive assembly language programming

## CS 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.

## CS 299. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Intended for Undergraduates)

## CS 301. Computers and Society <br> (3) [GE] I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Impact of computers and computing technology on society: applications, benefits, and risks. Topics include privacy, copyright, computer crime, constitutional issues, risks of computer failures, evaluating reliability of computer models, computers in the workplace, trade and communications in the global village. Not open to computer science majors or to students with credit in Computer Science 440.

## CS 310. Data Structures (3) I, II

Prerequisites: Computer Science 108 and Mathematics 245.
Representations and operations on basic data structures. Arrays, linked lists, stacks, queues, and recursion; binary search trees and balanced trees; hash tables, dynamic storage management; introduction to graphs. An object oriented programming language will be used.
CS 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. Languages studied should include at least C++, FORTRAN, and LISP.

## CS 370. Computer Architecture (3) I, II

Prerequisite: Computer Science 237.
Logic gates, combinational circuits, sequential circuits, memory and bus system, control unit, CPU, exception processing, traps and interrupts, input-output and communication, reduced instruction set computers, use of simulators for analysis and design of computer circuits, and traps/interrupts.

## CS 425. Tcl and Tk Interface Programming (3)

Prerequisite: Computer Science 220.
Presentation of Toolkit Command Language (Tcl) and Toolkit (Tk) languages, a portable programming environment for creating graphical user interfaces under X Windows, Microsoft Windows, and Macintosh. Writing scripts for Tcl, Tk, and extensions such as Expect.

## CS 435. Advanced Java Programming

Prerequisite: Computer Science 310.
Object oriented modeling techniques and tools; use cases; UML models and diagrams. Exception handling, I/O with objects, random access I/O, subclasses and inheritance, overloading versus overriding, interfaces and abstract classes, threads, cloning, packages, documentation aids, archiving and compression, iterators and comparators.

## CS 440. Social, Legal, and Ethical Issues in Computing

Prerequisite: Computer Science 108.
Impact of computers, applications, and benefits, copyright, privacy, computer crime, constitutional issues, risks of computer failures, evaluating reliability of computer models, trade and communications in the global village, computers in the workplace, responsibilities of the computer professional. Not open to students with credit in Computer Science 301.

## CS 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.

## CS 490. Senior Seminar (1)

Prerequisite: Fifteen units of upper division computer science courses.

Preparation and delivery of oral presentations on advanced topics in computer science. General principles of organization and style appropriate for presenting such material.

CS 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.

## CS 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)

## CS 501. Computational Software (3)

Prerequisites: Computer Science 106 and 310.
Design and implementation of software for computational science. Makefiles in UNIX environment, efficient Fortran and 00 programming, use of common application libraries, file and source code management, software documentation, construction of libraries and applications. Designed for computational science students. Computer science majors must obtain adviser approval.
CS 503. Scientific Database Techniques (3)
Prerequisites: Computer Science 205, 310, and Mathematics 245. Fundamental data models for handling scientific data, including flat file, indexed compressed files, relational databases, and object oriented databases, and their associated query technologies; e.g. file formats, input/output libraries, string searching, structured query language, object-oriented structured query language, hypertext markup language/common gateway interface, and other specialized interfaces. Designed for computational science students. Computer science majors must obtain adviser approval. See Computer Science 514.

## CS 505. Parallel Computing (3)

Prerequisite: Computer Science 310. Recommended: Computer Science 501.

Motivations and methods of high performance computing. Modern computer architecture characteristics, uniprocessor programming and tuning, shared and distributed memory programming techniques, benchmarking. Designed for computational science students. Computer science majors must obtain consent of adviser.

## CS 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.
CS 520. Advanced Programming Languages (3)
Prerequisites: Computer Science 237, 310, and 320.
Object oriented programming, concurrent programming, logic programming. Implementation issues.
CS 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.
CS 530. Systems Programming (3) I, II
Prerequisites: Computer Science 237 and 310.
Design and implementation of system software. Relationship between software design and machine architecture. Topics from assemblers, loaders and linkers, macro processors, compilers, debuggers, editors. Introduction to software engineering and review of programming fundamentals and object oriented concepts. Large project in object oriented programming is required. Not acceptable for the M.S. degree in computer science.
CS 532. Software Engineering (3)
Prerequisites: Computer Science 320 and 530.
Theory and methodology of programming complex computer software. Analysis, design, and implementation of programs. Team projects required.

CS 533. Component Based Software Engineering (3)
Prerequisites: Computer Science 310 and 320.
Component based (CB) software development using UML and other design methods. Development of components for use in CB systems; CB software architectures; development of CB systems; comparison of traditional and CB system development methods.

## CS 534. Software Measurement (3)

Prerequisite: Computer Science 532.
Basics of software measurement and use of measurement information to ensure quality software and determine software process effectiveness. Software estimation, cost estimation models, definition of various measures, tools to support measurement collection and analysis, analysis techniques, and case studies.
CS 535. Object-Oriented Programming and Design (3)
Prerequisites: Computer Science 310 and 320.
Basic concepts of object-oriented programming; classes, objects, messages, data abstraction, inheritance, encapsulation. Object-oriented design methodology.

## CS 537. Component GIS Architectures (3)

Prerequisites: Computer Science 108, 310, and Geography 484.
Customization of Geographic Information Science application development platforms with emphasis on object oriented programming and component architecture. Prominent examples are Map Objects with Visual Basic, Map Objects with Java. Considerable programming effort required, especially in Graphical User Interface development.

## CS 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.
CS 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 usermachine graphical interfaces.
CS 552. Artificial Intelligence II (3)
Prerequisite: Computer Science 550.
Limitations of symbol-based approach to artificial intelligence from Computer Science 550. Presented alternatives are genetic and probabilistic approaches, connectionist and emergent representation and learning, natural language processing, intelligence measures and cognitive models. Seminal publications shaping these techniques.

## CS 553. Neural Networks (3)

Prerequisites: Computer Science 320 and Mathematics 254.
Principles of neural networks, their theory and applications.
CS 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. Kinematics of planar robots. Design and implementation of robot joint controllers. Robot programming languages and environments, and robot command interfaces.

## CS 558. Computer Simulation (3)

Prerequisites: Computer Science 310 and Statistics 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.

## CS 559. Computer Vision (3)

Prerequisites: Computer Science 310 and Mathematics 254.
Algorithms and computer methods for processing of images. Visual perception as a computational problem, image formation, characterization of images, feature extraction, regional and edge detection, computer architectures for machine vision.

## CS 560. Algorithms and Their Analysis <br> (3) I, II

Prerequisite: Computer Science 310.
Algorithms for solving frequently occurring problems. Analysis techniques and solutions to recurrence relations. Searching and sorting algorithms. Graph problems (shortest paths, minimal spanning trees, graph search, etc.). NP complete problems. Not acceptable for the M.S. degree in Computer Science.

## CS 561. Multimedia Systems (3)

Prerequisite: Computer Science 551.
System aspects of multimedia authoring, browsing, and database subsystem; digital representation for different media; audio and video; operating system support for continuous media applications; architectures; design and implementation of multimedia support systems; use of multimedia technology in software engineering.

## CS 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.

## CS 564. Introduction to Computability <br> (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.

## CS 566. Queuing Theory (3)

Prerequisites: Computer Science 108 and Statistics 550.
Performance prediction of computer networks and other systems (e.g., inventory control, customer service lines) via queuing theory techniques. Operational analysis.

## CS 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. Not acceptable for the M.S. degree in Computer Science.

## CS 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.

## CS 574. Computer Security (3)

Prerequisites: Computer Science 310; Mathematics 245; Statistics 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.

CS 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.

## CS 576. Computer Networks and Distributed Systems (3)

Prerequisite: Credit or concurrent registration in Computer Science 570.

Basic networking concepts such as seven-layer reference model, transmission media, addressing, subnetting and supernetting, networking devices, LANs and WANs, internetworking, distributed processing, and client-server model. Basic concepts and protocols of TCP/IP protocol suite and basic Internet services.

## CS 580. Client-Server Programming (3)

Prerequisites: Computer Science 570 and knowledge of an objectoriented programming language. Recommended: Computer Science 576.

Client-server model, networking protocols for client-server programs, algorithmic issues in client-server programs, client-server protocols, implementing client-server applications.

## CS 581. Computational Linguistics

## (3)

(Same course as Linguistics 581.)
Prerequisites: Computer Science 320 or Linguistics 571; Linguistics 570 or Mathematics 245 .

Basic concepts in computational linguistics including regular expressions, finite-state automata, finite-state transducers, weighted finite-state automata, and n-gram language models. Applications to phonology, orthography, morphology, syntax. Probabilistic models. Statistical techniques for speech recognition.

## CS 582. Introduction to Speech Processing <br> (3)

Prerequisite: Computer Science 310.
Fundamentals of speech processing and speech recognition. Physical aspects of speech production and perception. Mathematical models for speech recognition. Corpus development: data collection, processing, and evaluation. Applications of speech processing and associated research topics.

## CS 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 <br> Computing |
| Mathematics 542. | Introduction to Numerical <br> Solutions of Differential <br> Equations |
| Mathematics 561. | Applied Graph Theory |
| Mathematics 579. | Combinatorics |

# Counseling and School Psychology 

OFFICE: North Education 179
TELEPHONE: 619-594-6109
FAX: 619-594-7025

Accredited by the California Commission on Teacher Credentialing and the National Association of School Psychologists.

## Faculty

Emeritus: Cummins, Feinberg, Hawley, Howard, Malcolm, Miller, Ramage, Thompson
Chair: Robinson-Zañartu
Professors: Cook-Morales, Ingraham, Monk, Robinson-Zañartu, Senour
Associate Professors: O'Shaughnessy, Terry-Guyer
Assistant Professors: Butler-Byrd, Green, Hernandez, Lim, Taylor

## Offered by the Department

Educational Specialist degree in school psychology
Master of Arts degree in education.
Concentration in counseling.
Master of Science degree in counseling.
Concentration in marriage and family therapy.
Concentration in school counseling.
Pupil personnel:
School counseling credential.
School psychology credential.
Certificate in cultural and community trauma studies (offered only in Extension) (refer to the Graduate Bulletin).

## Courses (CSP)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## UPPER DIVISION COURSES

 (Intended for Undergraduates)CSP 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 development of leadership in educational settings. Simulation activities assist students in acquisition of group leadership skills.

## CSP 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.

## CSP 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.

## CSP 420. Popular Culture and Counseling (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences

Impact of popular culture on personal functioning and well-being. Meaning and salience of popular culture, social construction of popular culture in society, and convergence of popular culture and counseling.

## CSP 450. Marriage and Family Therapy (3) I, II

Prerequisites: Minimum of 15 units of coursework from Child and Family Development, Psychology, or Social Work.

Profession of family therapy. Problem formation and resolution processes that take place in families and other close relationships. Application of concepts within diverse contexts to one's own family experience.

## CSP 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.

## CSP 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 COURSE

## (Also Acceptable for Advanced Degrees)

## CSP 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.

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 100<br>TELEPHONE: 619-594-6224<br>FAX: 619-594-1165

## Faculty

Emeritus: Boostrom, Gitchoff, Henderson
Director: Henry
Professors: Henry, Rea, Sutton
Associate Professors: Mclllwain, Pearl, Sabath
Assistant Professors: Mobley, Nurge

## 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, and Alcohol, Tobacco and Firearms (ATF).

A significant number of graduates of this degree program also enter law school after graduation.

## Impacted Program

The criminal justice administration major is an impacted program. To be admitted to the criminal justice administration major, students must meet the following criteria:
a. Complete with a grade of C or higher: Criminal Justice Administration 200; Political Science 102; Sociology 101 and 150; and a 3-unit course in elementary statistics. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 60 transferable semester units;
c. Have a cumulative GPA of 2.60 or higher; and
d. Students not meeting the minimum GPA requirements may petition for special consideration.
To complete the major, students must fulfill the degree requirements described in the catalog in effect at the time they are accepted into the premajor or major at SDSU and must be continuously enrolled.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education courses will also fulfill a major preparation course requirements.

## Criminal Justice Administration Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 21051)
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, but is allowed.
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, Statistics 250). (15 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$. The minimum grade in each class is C.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(W)$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include one criminal justice practicum course selected from Criminal Justice Administration 430 (Offered only in Extension), 496 (Russian Criminal Justice Systems - Offered only in Extension), 497, 498, 543, International Security and Conflict Resolution 450. Additionally, students must complete Criminal Justice Administration 301, 540; Public Administration 301; and six elective units in public administration selected from upper division public administration courses. Students must complete 18 additional upper division units in accordance with the major academic plan including nine upper division units in criminal justice administration courses.

Master Plan. Students should follow the Master Plan Advising Guide to ensure completion of major requirements. Contact the School for a copy of the guide.

## Courses (CJA)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSE

## CJA 200. Introduction to Criminal Justice

Administration (3) I, II
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)

## CJA 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.

## CJA 305. Professions, Practices and Ethics in Criminal Justice

 Administration (3)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.

## CJA 310. Law Enforcement Administration (3)

Prerequisite: Criminal Justice Administration 301.
Administrative relationships within the criminal justice process with special reference to problems of courts and police and probation agencies.

## CJA 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.

## CJA 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.

## CJA 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.

## CJA 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.

CJA 420. Constitutional Issues in the Administration of Justice (3)
Prerequisite: Criminal Justice Administration 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.

CJA 430. Prisons in Theory and Practice (3) Cr/NC (Offered only in Extension)
Two lectures and forty 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.

## CJA 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.)

## CJA 497. Senior Thesis (3) I, II

Prerequisites: Senior standing and consent of instructor.
Using library, Internet, and empirical research. Analysis of current criminal justice policy issues.

## CJA 498. Internship in Criminal Justice

 Administration (2-6) Cr/NC I, IIPrerequisites: 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. Maximum credit six units.

## CJA 499. Special Study (1-3) Cr/NC I, II

Prerequisites: Twelve units of upper division criminal justice administration and consent of instructor.

Individual study. Maximum credit six units.
UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

## CJA 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.

## CJA 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.

## CJA 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.

## CJA 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.

## CJA 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.

## CJA 570. Organized Crime: Domestic and International Perspectives (3)

Prerequisite: Criminal Justice Administration 301.
Interdisciplinary analysis of organized crime's impact on criminal justice administration and public policy on both domestic and international levels.

GRADUATE COURSES
Refer to the Graduate Bulletin.

# Dance 

OFFICE: Music 112
In the College of Professional Studies and Fine Arts
FAX: 619-594-1692
E-MAIL: music.dance@sdsu.edu

## Faculty

Director: Chambers
Professors: Nunn, Sandback
Associate Professor: Hempel
Assistant Professor: Alter

## Offered by the School of Music and Dance

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

## The Major

Dance 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. This 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.

The Bachelor of Fine Arts in Dance provides professional preparation for dance majors in choreography, performance, scholarship, and teaching; more specifically, as choreographers and dancers with professional companies, teachers in community and recreation programs, schools and colleges, movement educators, and candidates for graduate work in dance scholarship.

The Bachelor of Arts in Dance is a liberal arts degree for those students who seek an understanding of and an intimate orientation to the discipline of dance without professional goals. This degree enables students to obtain this broad understanding.

A dance minor is available for those students whose primary interest is in another department.

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 B.F.A. student also stages original work in a senior concert. Dance activity courses provided in the school offer experiences for the general student population in modern, jazz, ballet, folk, and social forms.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Dance Major

## With the B.F.A. Degree in Applied Arts and Sciences (Major Code: 10082)

All candidates for a bachelor of fine arts degree must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." The maximum number of upper division units in dance courses acceptable toward the bachelor of fine arts degree is 70.

Entrance and placement auditions are required.
A minor is not required with this major.
For information regarding this program contact the adviser, Melissa Nunn, or the School of Music and Dance.

Preparation for the Major. Dance 110, 171, 181, 183, 221 (4 units), 231, 241 (8 units), 253, 255, 256, 285, 290, Biology 212. (33 units)

To qualify for upper division study, students must pass a Junior Level Review.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 41 upper division units to include Dance 353, 354, 365 (2 units), 371, 380A, 380B, 382, 421, 441 (9 units), 453, 481; 486 or 487; Dance 365 (2 additional units) or 471; six units of upper division dance electives.

## Entrance and Progression Requirements

In addition to CSU and SDSU requirements, incoming students requesting the B.F.A. program in Dance will be required to perform an audition before the faculty in order to be admitted to the program. The audition will consist of:

- A warm-up demonstrating basic technical skills, a center adagio combination, a brief creative study involving improvisational choices and concluding with traveling phrases demonstrating jumping and turning locomotion.
- Students will also have the opportunity to perform a two-minute (minimum, five minute maximum) dance prepared by the student in modern dance, ballet or jazz.
- Students will be asked to bring a curriculum vitae of previous experience in dance or related fields (theatre, music, visual arts, film, gymnastics, dance team, etc).
The following qualities will be assessed:
- Basic technical skills in dance, and the aptitude for mastering physicality, musicality, phrasing and dynamics.
- Attentiveness and the comprehension of instructions.
- Creativity, enthusiasm, and spirit.
- Basic performance skills utilizing focus and presence.
- A commitment and respect for the disciplined study of dance.

In order to continue in the B.F.A. program in dance, students must demonstrate a continuing progress in all areas of skill development, choreography, musical assessment, etc., in the following ways:

- Successful completion of all coursework as assessed through written examination and through continuous performance evaluation each semester.
- Junior Level Review: Students must successfully pass this review to continue into the junior year. Faculty will formally review coursework and assess videotape samples of choreography and technique form the freshman and sophomore years.


## 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 48 units in dance courses can apply to the degree.

Entrance and placement auditions are required.
A minor is not required with this major.
For information regarding this program contact the adviser, Melissa Nunn, or the School of Music and Dance.

Preparation for the Major. Dance 110, 171, 181, 183, 221 (4 units), 231, 241 (4 units), 253, 255, 285, 290; Biology 212. (28 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(\mathrm{W})$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 24 upper division units to include Dance 353, $371,380 \mathrm{~A}, 380 \mathrm{~B}, 382,481$; 486 or 487; and eight units of upper division dance electives.

## Dance Minor

The minor in dance consists of a minimum of 24 units in dance, of which eight units must be upper division, to include Dance 181, 183, 221, 231, 241 (4 units), 253, 255, 353; 380A or 380B; and three units selected from Dance 371, 441, 471.

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 in residence at San Diego State University.

## Courses (DANCE)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

DANCE 100. Dance Activity (1)
Two hours of activity.
Open to all students. Provides physically skilled instruction and knowledge of ballroom, ethnic, ballet, jazz, and modern dance forms.
A. Beginning Ballroom Dance
C. Ethnic Dance
E. Beginning Ballet
F. Intermediate Ballet
G. Beginning Jazz Dance
H. Intermediate Jazz Dance
I. Beginning Modern Dance
J. Intermediate Modern Dance

DANCE 102. Elements of Dance for Non-Dance Majors
Two lectures and two hours of activity.
Developing an understanding of elements of dance: time, space, dynamics, and intention. Relationship to national and state educational standards. Designed for future teachers. Not open to dance majors.

## DANCE 110. Historical and Contemporary Social

 Dance Forms (1)ITwo hours of activity.
Prerequisite: Consent of instructor.
Court and country dances including social dances of the nineteenth and twentieth centuries.

## DANCE 171. Dance Production I (1) Cr/NC <br> Three hours of laboratory.

Technical experience in dance production.
DANCE 181. Introduction to Dance (3) [GE] 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.

## DANCE 183. Rhythmic Analysis (2)

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.

## DANCE 221. Ballet I (2)

Four hours of activity.
Ballet skills for dance majors and minors emphasizing placement, coordination, ballet terminology, and technical principles. Maximum credit for Dance 121 and 221 combined is four units.

## DANCE 231. Jazz Dance I

Four hours of activity.
Prerequisite: Consent of instructor. Dance majors and minors only.
Jazz dance technique and fundamentals. (Formerly numbered Dance 131.)

## DANCE 241. Modern Dance I

(2)

Six hours of activity.
Development of modern dance skill with emphasis on function of alignment and articulation of the extremities in motion. Maximum credit eight units.

## DANCE 253. Choreography I

(2)

Four hours of activity.
Prerequisites: Dance 241 (4 units) and 255.
Using concepts of space, time, and energy to investigate and explore basic elements of choreography. Studies and compositions emphasizing solo and small group works.

## DANCE 255. Dance Improvisation I (1)

Two hours of activity.
Exploring improvisation through specific stimulus leading to the acquisition of basic improvisational skills.

## DANCE 256. Dance Improvisation II (1)

Two hours of activity.
Prerequisite: Dance 255.
Practice in more complex arrangements of improvisation.

## DANCE 285. Dance Pedagogy <br> (2)

Four hours of activity.
Teaching theory as applied to ballet, modern, jazz, and social dance for adult populations.

## DANCE 290. Body Modalities (2)

One lecture and two hours of activity.
Analysis, investigation, and physical realization of alternative movement theory systems for dancers and non-dancers including an introduction to body modalities of yoga, pilates, ideokinesis, Alexander and Feldenkrais techniques, Laban movement analysis and authentic movement.

## DANCE 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 <br> (Intended for Undergraduates)

## DANCE 302. Dance for Children <br> (3)

Prerequisite: Dance 102.
Development of choreographic knowledge and leadership. Production of a collection of dance teaching resources; inclusion of the arts in learning environments. Designed for future classroom teachers and elementary dance specialists.

DANCE 353. Choreography II (2)
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.

## DANCE 354. Choreography III (2)

Four hours of activity.
Prerequisite: Upper division standing in dance
Approaching dance as a fundamental means of communication Recognizing the relationship between form and content.

## DANCE 365. University Dance Company:

Major Performance (1-2) 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. Students must enroll in a minimum of two semesters. Maximum credit six units.
DANCE 371. Dance Production II (1) $\mathrm{Cr} / \mathrm{NC}$
Three hours of laboratory.
Prerequisite: Dance 171.
Technical experience in dance production.

## DANCE 380A. Dance History I: Ritual and Theatrical Contexts (3)

Prerequisite: Dance 181.
History of dance from ancient Greece to early twentieth century in a ritual and theatrical context. Political, economic, and cultural forces that have shaped dance as a social phenomenon and as an art form.

## DANCE 380B. Dance History II: Contemporary Global Contexts (3) <br> Prerequisite: Dance 181. <br> History of dance from early twentieth century to present in a global context. Political, economic, and cultural forces that have shaped the development of contemporary dance as an art form.

## DANCE 382. Dance in World Cultures <br> (3)

Two lectures and two hours of activity.
Prerequisite: Dance 181.
Dance in selected cultures; geographic, historical, social, and aesthetic factors which have shaped development and function. Not open to students who have completed Dance 281.

## DANCE 398. Dance Internship (1-3)

Prerequisite: Upper division standing and consent of dance director. Open only to dance majors and minors.

Supervised practical experience in dance studio management and instruction. Maximum credit three units.

## DANCE 421. Ballet II (2)

Four hours of activity.
Prerequisite: Dance 221.
Ballet skills for dance majors emphasizing turns, jumps, batterie, extended sequences, and movement quality. (Formerly numbered Dance 321.)

## DANCE 441. Modern Dance II

(3)

Six hours of activity.
Prerequisite: Dance 241.
Advanced modern dance techniques based on skills developed in Dance 241 with emphasis on performance qualities in projection, vitality, and executing. Maximum credit for Dance 341 and 441 combined is nine units.

## DANCE 453. Senior Project (2)

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 concert.

## DANCE 471. Production Design for Dance

One lecture and two hours of activity.
Prerequisite: Dance 371.
Lighting, set, multi-media, costume and make-up design for dance. Study of concert promotion and production for dance. (Formerly numbered Dance 271.)

## DANCE 481. Dance Aesthetics and Criticism

Prerequisites: Dance 380A and 380B.
Philosophy and aesthetics of dance. Historical foundations of dance criticism. Major contemporary schools of thought. Professional preparation and function of the dance critic.

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.
DANCE 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.

## DANCE 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.
DANCE 499. Special Study (1-3) I, II
Prerequisite: Consent of the dance director. Individual study. Maximum credit six units.

# Economics 

OFFICE: Nasatir Hall 305
TELEPHONE: 619-594-1675
FAX: 619-594-5062

## Faculty

Emeritus: Anderson, Babilot, Barckley, Boddy, Clement, Gifford, Green, Hambleton, Kartman, Leasure, Madhavan, Nam, Popp, Poroy, Sebold, Steinberg, Stewart, Turner, Venieris
Chair: Thayer
Professors: Adler, Frantz, Gerber, Grossbard, Thayer
Associate Professor: Amuedo-Dorantes
Assistant Professors: Balsdon, Bansak, Hilmer, C., Hilmer, M., Imazeki, Puttitanun

## Offered by the Department

Master of arts degree in economics.
Major in economics with the B.A. degree in liberal arts and sciences. Emphasis in international economics. Emphasis in preprofessional studies.

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 Department of Economics offers two emphases which students may select to satisfy a wide range of career goals: (1) International Economics, where students can focus on worldwide economic policy and global business; and (2) Preprofessional Studies, in which students prepare for graduate study in law school, health administration, and business administration. A specialization in Quantitative Analysis is also offered which focuses on developing analytical and mathematical skills for conducting economic research. A fourth option is the comprehensive program offered in the general economics major, which provides breadth by covering areas from the emphases and specialization.

Economics majors may find employment in government, financial institutions, business, and international agencies. The combination of an economics major with a business minor provides a foundation for a variety of careers. And, students interested in studying the developing nations, the environment, government policies, or population will find that economics is a useful approach.

Many entry-level 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, investment companies or industry.

## In the College of Arts and Letters

## Impacted Program

The economics major is an impacted program. To be admitted to the economics major, students must meet the following criteria:
a. Complete with a grade of C or higher: Economics 101, 102; Accountancy 201; Economics 201 or Statistics 119 or 250; one course selected from Mathematics 120, 121, or 150; Information and Decision Systems 180, or Social Science 201C and two units from Social Science 201A, 201B, 201D. These courses cannot be taken for credit/no credit (Cr/NC); except for courses taught as Cr/NC only;
b. Have a cumulative GPA of 2.40 or higher;
c. To be admitted to the emphasis in international economics (major code 22042), students must, in addition to satisfying the criteria above, also satisfy the language requirement for the Bachelor of Arts degree in Liberal Arts and Sciences.
To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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.
Graduation Survey. All majors will complete an online survey assessing their experiences in the department and educational outcomes in the major. Students answer the survey online at the Department of Economics Web page. The survey, which is a department requirement, must be completed during the student's final semester.

Preparation for the Major. Economics 101, 102; Accountancy 201; Economics 201 or Statistics 119 or 250; one course selected from Mathematics 120, 121, or 150; Social Science 201A; Information and Decision Systems 180 or the combination of Social Science 201C and either Social Science 201B or 201D, or a computer course of at least two units. (18-20 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$; except for courses taught as $\mathrm{Cr} / \mathrm{NC}$ only. The minimum grade in each class is C or higher.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units to include Economics 301, 320, 321, and 18 units of electives. At least six units of electives selected from the international group: Economics 330, 360, 365, 464, 465, 489, 561, 565, 592. Maximum nine units of Economics 496 or 596; maximum three units of 499; and maximum three units of 495 may be applied to the major. Units of 495, 496, 499, 596 may be counted towards the international group requirement as approved by adviser.

## Emphasis in International Economics <br> (Major Code: 22042)

Graduation Survey. All majors will complete an online survey assessing their experiences in the department and educational outcomes in the major. Students answer the survey online at the Department of Economics Web page. The survey, which is a department requirement, must be completed during the student's final semester.

Preparation for the Major. Economics 101, 102; Accountancy 201; Economics 201 or Statistics 119 or 250; one course selected from Mathematics 120, 121, or 150; Social Science 201A; Information and Decision Systems 180 or the combination of Social Science 201C and either Social Science 201B or 201D, or a computer course of at least two units. (18-20 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$; except for courses taught as $\mathrm{Cr} / \mathrm{NC}$ only. The minimum grade in each class is C or higher.

Language Requirement. Successful completion of a course in a foreign language at the fourth semester or higher level, that is, one course beyond the B.A. language requirement. Students who have graduated from high school in another country where the language of instruction is not English have met the language requirement for this major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Study/Internship Abroad Requirement. Completion of a study abroad or internship abroad of at least 12 units of coursework or six units of the internship course in another nation. Students may also choose to complete a combination of nine units of study and three units of the internship abroad. Students who have graduated from high school outside the U.S. meet this requirement by studying at SDSU.

Major. A minimum of 33 upper division units ( 27 units in economics and six to seven units from the College of Business Administration) to include Economics 301, 320, 321.
A. At least 12 units of electives must be selected from the international group: Economics 330, 360, 365, 464, 465, 489, 561, 565, 592.
B. Up to six units of electives may be selected from Economics $311,338,380,382,401,406,422,441,452,453,454,458,489$, 490.

Six to seven units selected from Finance 323 and 329, or Management 350 and 357 , or Marketing 370 and 376 .

Maximum nine units of Economics 496 or 596 and maximum three units of 499 may be substituted into A or B as appropriate with approval of adviser except for Economics 360, 561, or 592. Maximum three units of 495 may be substituted into A with appropriate international content as approved by adviser.

## Emphasis in Preprofessional Studies (Major Code: 22041)

Graduation Survey. All majors will complete an online survey assessing their experiences in the department and educational outcomes in the major. Students answer the survey online at the Department of Economics Web page. The survey, which is a department requirement, must be completed during the student's final semester.

Preparation for the Major. Economics 101, 102; Accountancy 201; Economics 201 or Statistics 119 or 250; one course selected from Mathematics 120, 121, or 150; Social Science 201A; Information and Decision Systems 180 or the combination of Social Science 201C and either Social Science 201B or 201D, or a computer course of at least two units; Communication 160. (21-23 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$; except for courses taught as $\mathrm{Cr} / \mathrm{NC}$ only. The minimum grade in each class is C or higher.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Students must have fulfilled the Writing Proficiency Assessment with a score of 8 or above before taking English 508W or 584W, or Linguistics 305W, or Rhetoric and Writing Studies 305W or 500W or 503W or 508W, or Chicana and Chicano Studies 396W and earn a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units in economics to include Economics 301, 320, 321, Finance 323, and 18 units of electives in economics.
A. At least 12 units selected from the preprofessional group: Economics $311,338,380,382,401,406,422,441,452,453,454$, 458, 490.
B. At least three units of electives selected from the international group: Economics 330, 360, 365, 464, 465, 489, 561, 565, 592.
Maximum nine units of Economics 496 or 596 may be substituted as upper division elective with approval of adviser. Maximum three units of 495 and maximum three units of 499 may be substituted into A with appropriate preprofessional content as approved by adviser.

## Specialization in Quantitative Analysis

Graduation Survey. All majors will complete an online survey assessing their experiences in the department and educational outcomes in the major. Students answer the survey online at the Department of Economics Web page. The survey, which is a department requirement, must be completed during the student's final semester.

Preparation for the Major. Economics 101, 102, and either Economics 201 or Statistics 119 or 250; Accountancy 201; Mathematics 150; Social Science 201A; Information and Decision Systems 180 or the combination of Social Science 201C and either Social Science 201B or 201D, or a computer course of at least two units. (19-20 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$; except for courses taught as $\mathrm{Cr} / \mathrm{NC}$ only. The minimum grade in each class is C or higher.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units in economics to include Economics 301, 320, 321, 441, 507, and 12 units of upper division economics electives, with at least six units at the 400 or 500 level. Maximum nine units of Economics 496 or 596 may be substituted as
upper division elective with approval of adviser. Maximum three units of 495 and maximum three units of 499 may be substituted as upper division elective with appropriate quantitative content as approved by adviser.

## Economics Minor

The minor in economics consists of a minimum of 18 units in economics to include Economics101 and 102, and 320 or 321, and at least nine units of electives selected from one of the following tracks:

International Economics: Economics 330, 360, 365, 464, 465, 489, $561,565,592$. A maximum of three units of Economics 495, 496, and 499 may be used to satisfy the nine unit elective requirement with prior permission from the department.

Preprofessional Studies: Economics 311, 338, 382, 401, 406, 422, $452,453,454,458,490$. A maximum of three units of Economics 495, 496, and 499 may be used to satisfy the nine unit elective requirement with prior permission from the department.

Quantitative Analysis: Economics 301, 441, 507. A maximum of three units of Economics 495, 496, and 499 may be used to satisfy the nine unit elective requirement with prior permission from the department.

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 in residence at San Diego State University.

## Courses (ECON)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## ECON 101. Principles of Economics (3) [GE] I, II, S

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.

## ECON 102. Principles of Economics (3) [GE] I, II, S

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.

## ECON 201. Statistical Methods (3) [GE] I, II

Prerequisites: Course in intermediate algebra, satisfaction of the Entry-Level Mathematics requirement, and qualification on the Mathematics Departmental Placement Exam, Part 1A.

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: Economics 201; Administration, Rehabilitation and Postsecondary Education 201; Biology 215; Civil Engineering 160; Political Science 201; Psychology 270; Sociology 201; Statistics 119 or 250.

## ECON 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)

ECON 301. Collection and Use of Data in Economics (3)
Prerequisites: Economics 101 and 102; Economics 201 or Statistics 119; and Information and Decision Systems 180 or Social Science 201C.

Economic data gathering via Internet and other sources, data entry into spreadsheets and graphing techniques, statistics using spreadsheets, and introduction to basic regression.

## ECON 311. History of Economic Thought <br> (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.

## ECON 320. Intermediate Macroeconomic Theory (3) I, II

Prerequisite: Economics 101 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.
ECON 321. Intermediate Microeconomic Theory (3) I, II
Prerequisite: Economics 102 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.

## ECON 330. Comparative Economic Systems (3) [GE]

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.

Current economic systems from primarily laissez-faire to statecontrolled market economies with a focus on nations of Asia, Europe and Latin America; Soviet-style economic planning and transition to a market economy.

## ECON 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.

## ECON 360. International Economic Problems (3)

Prerequisites: Economics 101 and 102.
International problems, economic communities, organizations, and other selected topics.

## ECON 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.

## ECON 380. Labor Economics (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.

## ECON 382. Economics of Work, Marriage, and Family

Prerequisite: Economics 102.
Economic analysis of marriage and labor supply; family-related changes in work behavior; gender differences in occupations and earnings; welfare, work and family policies in the U.S. and internationally; macroeconomic analysis of household structure and economy.

## ECON 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.

## ECON 406. Economics of Sports

Prerequisite: Economics 102.
Economic issues in professional and college team sports. Emphasis on monopoly and monopsony behavior by sports leagues and teams, public subsidies for sports facilities, ticket pricing, and NCAA rules and regulations.

## ECON 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.

## ECON 441. Introduction to Econometrics (3)

Prerequisites: Economics 301; Mathematics 120 or 121 or 150; Recommended: Economics 320 or 321.

Econometric techniques with emphasis on single-equation models Applied skills learned through computer assignments.
ECON 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.

## ECON 453. Environmental and Natural Resource Economics

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 polIution, overpopulation and natural resource utilization. Investigation of possible solutions.

## ECON 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.
ECON 458. Urban Economics (3)
Prerequisites: Economics 101 and 102.
Major influences on economic conditions of urban areas; specific urban issues including growth and housing. Discussion of San Diego issues.

## ECON 464. Economic Problems of Latin America (3) [GE]

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.

ECON 465. Economic Problems of South and East Asia (3) [GE]
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.

## ECON 489. Economics and Population (3) [GE]

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.

## ECON 490. Money and Banking (3) I, II

Prerequisites: Economics 101, 102, and Accountancy 201.
Money's measurement and use; monetary theory and policy; returns on financial instruments; international payments and foreign exchange; evolution of banking institutions, and global competition.

## ECON 495. Economics Internship (3) Cr/NC/RP I, II, S

Prerequisite: Consent of instructor.
Internship with business firms, nonprofit organizations and government agencies. Work done under joint direction of activity supervisor and instructor. Project report and internship conferences required. Maximum credit six units.

## ECON 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 nine units.

## ECON 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)

## ECON 507. Mathematical Economics (3)

Prerequisite: Mathematics 121 or 150. Recommended: Economics 320 or 321

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.

## ECON 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.

## ECON 565. North American Economic Relations (3)

Prerequisites: Economics 101 and 102. Recommended: Economics 360.

Socioeconomic development of U.S., Mexico, and Canada since World War II. Issues affecting the three countries' relations, including trade investment, technology, and international organizations and agreements.

## ECON 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.

## ECON 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 nine 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.

OFFICE: Business Administration 346
TELEPHONE: 619-594-6091
FAX: 619-594-7082

Accredited by the California Commission on Teacher Credentialing and the National Council for Accreditation of Teacher Education.

## Faculty

Faculty assigned to teach in education are drawn from departments in the College of Education.

## Courses (ED)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## ED 200. Teaching as a Profession <br> (3)

Current issues, challenges in education; explores strategies that promote professional development. Critically assesses issues related to teaching in culturally and linguistically diverse school settings. Includes guided classroom observations.

## ED 201. Introduction to Literacy (3)

Two lectures and four hours of laboratory.
Intended for students in the liberal studies blended program for K-3 literary tutors. Basic processes of literacy and instructional strategies in culturally relevant reading instruction for emergent readers. Requires four hours weekly tutoring in a designated K-3 setting.

## Education

In the College of Education

## UPPER DIVISION COURSES (Intended for Undergraduates)

ED 350. Education in American Society<br>(3) [GE] I, II, S

(Selected sections offered as distance education.)
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.

## ED 451. Introduction to Multicultural Education (3)

Overview of cultural pluralism in education, industry, business, other institutions, and society at large.

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

## ED 516. Foundations of Bilingual Education (1)

Prerequisite: Credit or concurrent registration in Education 451.
Overview of models of bilingual education programs for language minority students.

GRADUATE COURSES
Refer to the Graduate Bulletin.


## Educational Leadership

## In the College of Education

OFFICE: North Education 166
TELEPHONE: 619-594-4063
E-MAIL: candrade@mail.sdsu.edu http://edweb.sdsu.edu/edleader/

Accredited by the California Commission on Teacher Credentialing.

## Faculty

Emeritus: Downey, Latta, Lienert, Merino, Streshly, Warburton, Wetherill, Yerkes
Chair: Basom
Professors: Basom, Johnson, Meno, Pumpian, Uline

## Offered by the Department

Doctor of Education degree in educational leadership. Master of Arts degree in education.

Concentration in educational leadership.
Administrative services credentials.

## Courses (EDL)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## UPPER DIVISION COURSES

 (Intended for Undergraduates)
## EDL 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.

## EDL 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 COURSE

## (Also Acceptable for Advanced Degrees)

## EDL 596. Topics in Educational Leadership (1-3)

Selected problems in educational leadership. 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.
> ${ }^{6}$ An education isn't how much you have committed to memory, or even how much you know. It's being able to differentiate between what you do know and what you don't."

-Anatole France

## Educational Technology

## OFFICE: North Education 280

TELEPHONE: 619-594-6718
In the College of Education
FAX: 619-594-6376
http://edtec.sdsu.edu

Accredited by the California Commission on Teacher Credentialing.

## Faculty

Emeritus: Anthony, Harrison, McAllister
Chair: Bober
Professors: Allen, Dodge, Ritchie, Rossett, Saba
Associate Professors: Bober, Hoffman
Assistant Professor: Wang

## Offered by the Department

Doctor of Education degree in educational technology.
Master of Arts degree in education.
Concentration in educational technology.
Specialization in educational computing.
Specialization in workforce education and lifelong learning.
Minor in educational technology.
Certificate in distance education
(refer to the Graduate Bulletin).
Certificate in instructional software design
(refer to the Graduate Bulletin).
Certificate in instructional technology.

## Educational Technology Minor

The minor in educational technology consists of a minimum of 15 units in Educational Technology. At least 12 of which must be upper division selected from Educational Technology 540, 541, 544, 550, 561, 570, 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 or as prerequisites for the master's degree in educational technology. A minimum of six upper division units must be completed in residence 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 must complete the following 15 units of coursework: Educational Technology 540, 541, 544, and six units selected from Educational Technology 550, 561, 570, 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 minor.

## Courses (edtec)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## EDTEC 220. Learning, Technology, and Society

(3)

Problem-solving at the intersection of three fundamentally human enterprises: learning, technology, and social institutions. Identifying needs, generating possible solutions in the following domains: elearning, edutainment, formal and informal learning. Projections and visions of future developments to enhance learning.

EDTEC 270A. Technologies for Teaching I (Blended) (1)
One and one-half hours of lecture and three hours of activity per week for five weeks.

Prerequisite: Admission to liberal studies program.
Application of technology to teaching. Meets part of computer literacy requirement for Level I teaching credential. Required for multiple subjects credential students who do not pass the entrance test for Educational Technology 470.

EDTEC 296. Experimental Topics (1-3) 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 <br> (Intended for Undergraduates)

EDTEC 470. Technologies for Teaching (1-3) I, II, S
One unit: One-half hour of lecture and one hour of activity.
Two units: One hour of lecture and two hours of activity.
Three units: One and one-half hours of lecture and three hours of activity.

Application of computer and video technologies to practice of teaching. Meets computer literacy requirement for Level I teaching credential.

## EDTEC 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.
EDTEC 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)

Distance education courses are offered through the College of Extended Studies.

EDTEC 532. Production of Instructional Materials (3) I
Six hours of activity.
Instructional media production for professionals in organizational settings such as hospitals, law offices, accounting firms, publishing companies. Use of web pages, video, presentation software, and data analysis tools for training. Not open to students in educational technology degree and certificate programs or to students with credit in Educational Technology 541.
EDTEC 540. Educational Technology (3) I, II, S
(Selected sections offered as distance education.)
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.

## EDTEC 541. Web-Based Multimedia Development <br> (3) I, II, S

(Selected sections offered as distance education.)
One lecture and six hours of laboratory.
Prerequisite: Basic computer literacy.
Systems, aesthetic, and learning theories applied to design of web-based educational multimedia. Planning and prototyping digital media. Not open to students with credit in Educational Technology 532.

## EDTEC 544. Instructional Design (3) I, II

(Selected sections offered as distance education.)
One lecture and six hours of laboratory.
Prerequisites: Educational Technology 540 and 541. Meet department Writing Skills Requirement or complete Rhetoric and Writing Studies 503W with a grade of B+ or better.

Systematic design of products for education and training. Use of cognitive task analysis to determine instructional content. Development of instructional goals and product specifications. Rapid prototyping of instructional products.

## EDTEC 550. Introduction to Distance Education (3)

(Selected sections offered as distance education.)
Two lectures and three hours of laboratory.
Prerequisites: Educational Technology 540, 541, 544, or equivalent experience in the field.

Terminology, concepts, instructional strategies, and technologies of distance education. Designing, facilitating, and managing courses at a distance. Overview of social issues, historical perspectives, and current trends. Analyzing distant learner profiles, needs, and skills. Telecommunicating, instructing, interacting, and providing feedback.

EDTEC 561. Advanced Web-Based Multimedia Development (3) I, II, S
(Selected sections offered as distance education.)
Six hours of activity.
Prerequisites: Educational Technology 540 and 541.
Two- and three-dimensional graphics, visualization, animation, digital video, sound, and virtual reality techniques. Research-based guidelines, design languages applied to development of interactive web-based learning systems.

## EDTEC 570. Advanced Teaching with Technologies <br> (3) S

(Selected sections offered as distance education.)
Prerequisite: Educational Technology 470 or equivalent work experience.

Design of constructivist lessons and units using Internet resources. Use of visual organizing tools and databases for instruction and assessment. Tools for professional knowledge base organization and electronic portfolios.
EDTEC 572. Technology for Course Delivery (3) I, II, S
(Selected sections offered as distance education.)
One lecture and six hours of laboratory.
Prerequisites: Educational Technology 540 and 541.
Use of technology to support planning, presenting and managing instructor-led courses.
EDTEC 596. Topics in Educational Technology (1-3) I
(Selected sections offered as distance education.)
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.


## OFFICE: Engineering 426

## Electrical Engineering

TELEPHONE: 619-594-5718
E-MAIL: ee@engineering.sdsu.edu
http://electrical.sdsu.edu

The undergraduate degree in Electrical Engineering is accredited by the American Board for Engineering and Technology.

## Faculty

Emeritus: Abut, Bailey, Brown, Chan, Chang, losupovici, Lin, Lodge,
Mann, Marino, Massey, Panos, Skaar, Stuart, Thyagarajan, Wilson
Chair: Tummala
Professors: Gupta, harris, f., Harris, J., Kolen, Lee, G., Lee, L., Szeto, Tummala
Associate Professors: Betancourt, Kumar, Ozturk
Assistant Professors: Chandramani, Nagaraj, Seshagiri
Adjunct: Waheed

## Offered by the Department of

## Electrical and Computer Engineering

Doctor of Philosophy degree in engineering sciences/applied mechanics.
Master of Engineering in manufacturing and design.
Master of Science degree in electrical engineering.
Major in electrical engineering with the B.S. degree
Certificate in rehabilitation technology (refer to the Graduate Bulletin).

## 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 American Board for Engineering and Technology, 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. No more than twelve units may be used for General Education credit from any one department or academic unit. No more than 7 units from one department can be used in Sections II and IV combined (Foundations and Explorations), nor more than 10 units from one department in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).
I. Communication and Critical Thinking: 9 units You may not use Credit/No Credit grades in this section.

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)
II. Foundations: 29 units
A. Natural Sciences and Quantitative Reasoning (17 units):
4. Physical Sciences (7 units)

Physics 195 (3 units)
Physics 196 and 196L (4 units)
2. Life Sciences (3 units)
3. Laboratory (satisfied under A.1. above)
4. Mathematics/Quantitative Reasoning

You may not use Credit/No Credit grades.
Mathematics 150 (3 units)
Mathematics 151 (4 units)
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: Courses in this area must not be taken sooner than the semester in which you achieve upper division standing ( 60 units passed). Upper division courses in the major department may not be used to satisfy General Education. Total: 9 units; must include one course of cultural diversity.
A. Upper division Humanities (3 units)

Three units must be taken from the same department as one of the Humanities courses selected in Foundations.
B. Upper division Humanities (3 units from a department not selected in A above.)
C. Upper division Social and Behavioral Sciences (3 units)

After enrollment in electrical engineering at SDSU, an Electrical Engineering major must take all upper division electrical engineering courses at SDSU unless prior approval is obtained from the department.

## The Major

The field of Electrical Engineering involves three major activities: the generation and distribution of electric power; the collection, processing and communication of information; and the study and application 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 cover the United States with 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 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, the world wide web, satellite communication systems, cable television systems, etc.). Also included in this area are consumer electronics and instrumentation for applications of all sorts (e.g., medical equipment, 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 degree program includes a 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 students to specialize in areas of particular interest. The process of engineering design is emphasized throughout the curriculum by including open-ended problems with realistic design constraints. The design experience culminates in a capstone design course required of all students. Creativity, consideration of economic and social factors, and the application of systematic design procedures are used to solve problems that confront engineers. 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 electrical engineering profession are challenging and usually plentiful. Electrical engineering 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 support engineering, and technical marketing and sales. Graduates have the opportunity to contribute to society by helping to design and supply the high-quality products and services that are necessary for a robust economy.

## Educational Objectives

The overall objective of the undergraduate program in electrical engineering is to produce the best skilled, hands on practicing electrical engineer. More specifically the objectives are:
A. To provide students with the technical knowledge and skills that will enable them to have a successful career in the electrical engineering profession;
B. To provide students with a general education that will enable them to appreciate the social, ethical, economic, and environmental dimensions of problems they may face;
C. To develop in students the communication skills and social skills that are necessary to work effectively with others;
D. To develop the ability of students to solve problems by learning what is already known, and then applying logic and creativity to find a solution;
E. To provide students with the intellectual skills necessary to continue learning and to stay current with the profession as it changes.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Electrical Engineering Major

## With the B.S. Degree (Major Code: 09091)

The program below describes the 130 units required for the degree. Each course specifically listed in the program is required. In addition, the total number of units specified in each elective category represents a minimum requirement. These are General Education, American Institutions, Upper Division Engineering Elective, Professional Electives, and Electrical Engineering Laboratory Electives.

Preparation for the Major. Electrical Engineering 210; Computer Engineering 160, 270, 271; Engineering 280; Mathematics 150, 151, 252, 254; Physics 195, 195L, 196, 196L. (38 units, 14 units of which count toward General Education credit.)

General Education. Engineering students must follow the specific General Education program outlined on the previous page. Other General Education requirements and limitations, as well as listings of specific General Education course electives are presented in Section IX of Graduation Requirements for the Bachelor's Degree. (Fifty units, including 14 units from preparation for the major which count toward General Education credit, and 3 units of American institutions which count toward General Education credit.)

American Institutions. 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.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 53 upper division units to include the following required and elective courses. Required upper division courses in the major: Electrical Engineering 300, 310, 330, 330L, 340, 380, 410, 420, 430, 434, 490; Computer Engineering 375. Professional electives: Fifteen units selected from any upper division electrical engineering and at most three units (out of these 15 units) from approved upper division courses from other departments. Electrical Engineering laboratory electives: Three units selected from any non-required upper division electrical engineering laboratory courses.

Master Plan. A master plan of elective courses must be approved by the faculty adviser and department chair and filed with the Office of Advising and Evaluations during the first semester of the junior year. Changes to the master plan are permitted at any time, with approval of the department chair. After enrollment in electrical engineering at SDSU, an electrical engineering major must take upper division electrical engineering courses at SDSU unless prior approval is obtained from the department.

The following is a recommended sequence of courses for the major in electrical engineering.
See General Education in this section for specific GE requirements.

## ELECTRICAL ENGINEERING MAJOR

| FRESHMAN YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall Semester | Units | Spring Semester | Units |
| GE Composition. | 3 | GE Intermediate Composition. | 3 |
| GE Humanities . | 3 | GE Oral Communication.. | 3 |
| GE Humanities... | 3 | COMPE 160, Intro. to Computer Prog. .... | 3 |
| GE Math / Mathematics 150, Calculus I ........ | 4 | Mathematics 151, Calculus II. | 4 |
| GE Social Science. | 3 | Physics 195, 195L, Principles of Physics | 4 |
|  | 16 |  | 17 |

## SOPHOMORE YEAR

| Fall Semester | Units | Spring Semester | Units |
| :---: | :---: | :---: | :---: |
| GE Humanities | 3 | Take the Writing Proficiency Assessment Examination |  |
| COMPE 270, Digital Systems. | 3 | E E 210, Circuit Analysis I. | 3 |
| Mathematics 252, Calculus III. | 4 | COMPE 271, Computer Organization ..... | 3 |
| Mathematics 254, Intro. to Linear Algebra .. | 3 | Engineering 280, Methods of Analysis | 3 |
| Physics 196, 196L, Principles of Physics ...... | 4 | GE Life Science...................... | 3 |
|  |  | GE Humanities ..................... | 3 |
|  | 17 |  | 15 |


| JUNIOR YEAR * |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall Semester | Units | Spring Semester | Units |
| E E 300, Comp. and Stat. Methods | 3 | E E 340, Elec. and Magnetic Fields. | 3 |
| E E 310, Circuit Analysis II. | 3 | E E 380, Elec. Energy Conversion. | 3 |
| E E 330, 330L, Fund. Engr. Electronics ......... | 4 | E E 410, Signals and Systems..................... | 3 |
| COMPE 375, Embedded Systems Prog........ | 3 | E E 430, Analysis and Des. of Elec. Circuits... | 3 |
| GE Explorations | 3 | GE Explorations... | 3 |
|  |  | GE Explorations... | 3 |
|  | 16 |  | 18 |


| SENIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall Semester | Units | Spring Semester | Units |
| E E Laboratory Elective. | 2 | E E Laboratory Electives. | 1 |
| E E 420, Feedback Control Systems ............ | 3 | Professional Electives. | 9 |
| E E 434, Elec. Matls. and Devices................ | 3 | E E 490, Senior Design Project. | 4 |
| Professional Electives ............................. | 6 | American Institutions. | 3 |
| American Institutions... | 3 |  |  |
|  | 17 |  | 17 |
|  |  | TOTAL | 130 |

[^17]
## Courses (EE)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

NOTE: Prerequisites will be enforced in all undergraduate electrical engineering courses numbered 100 through 599. A copy of an official transcript will be accepted as proof. For corequisites, an enrollment confirmation form will be accepted.

Any course at the 300 level or below must be passed with a grade of $C$ - or better in order to be used as a prerequisite for any subsequent course.

## LOWER DIVISION COURSES

E E 203. Principles of Electrical Engineering (3) I
Prerequisites: Mathematics 151 and Physics 196.
Direct and alternating current analysis, phasor diagrams, singlephase and three-phase power, diodes, transistors, integrated circuits, transformers, motors, and generators. Not acceptable for electrical, aerospace, or civil engineering majors.

## E E 204. Principles of Electrical Engineering <br> (3) 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.

## E E 210. Circuit Analysis I (3) I, II

Prerequisites: Mathematics 151 and Physics 196.
Circuit analysis by reduction methods, source transformations, mesh and nodal analysis. Operational amplifier model, transient analysis, alternating current circuits, impedance, power, phasor diagrams, and threephase balanced networks. Computer programming and application of computer software for circuit analysis.

## UPPER DIVISION COURSES (Intended for Undergraduates)

## E E 300. Computational and Statistical Methods for Electrical

 Engineers (3) I, IIPrerequisites: Computer 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.

## E E 303. Electronics, Instrumentation, and Electrical Energy Conversion (3) 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.

## E E 310. Circuit Analysis II (3) I, II

Prerequisites: Electrical Engineering 210 and either Mathematics 252 or both Engineering 280 and Mathematics 254. File an approved master plan with the Department of Electrical and Computer Engineering.

Transient and frequency response of RLC circuits. Mutual inductance, network analysis using Laplace transformations, network functions, stability, convolution integrals, Bode diagrams, two-port networks, computer analysis of circuits.

## E E 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.
E E 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.

E E 340. Electric and Magnetic Fields (3) I, II
Prerequisites: Electrical Engineering 210 and 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. Timevarying fields; Maxwell's equations.

## E E 380. Electrical Energy Conversion (3) I, II

Prerequisite: Electrical Engineering 210.
Magnetic circuits, transformers and polyphase AC networks. Fundamentals of electro-mechanical energy conversion; induction motors, synchronous machines and DC machines.

## E E 380L. Electrical Energy Conversion Laboratory <br> (1) I, II

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Electrical Engineering 380.

Experimental study of DC, single and polyphase AC circuits, transformers, and machines.

## E E 397. Discussion: Electrical Engineering (1) $\mathrm{Cr} / \mathrm{NC}$

Prerequisite: Concurrent registration in associated course.
Discussion and examples of problem-solving techniques in subject area. Weekly writing assignments summarizing material covered in lecture and identifying troublesome topics. Not applicable to a bachelor's degree.
E E 410. Signals and Systems (3) I, II
Prerequisites: Electrical Engineering 300 and 310.
Linear time-invariant systems, Fourier analysis, continuous and discrete signals and systems, filtering, sampling, and Z-transform techniques.

E E 420. Feedback Control Systems (3) I
Prerequisite: Electrical Engineering 410.
Control systems including servomechanisms by Laplace transform method. System performance and stability; Nyquist, Bode, and root-locus diagrams; elementary synthesis techniques. Practical components and examples of typical designs. (Formerly numbered Electrical Engineering 520.)
E E 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.

## E E 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.

## E E 434. Electronic Materials and Devices (3) I, II

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.

## E E 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.

## E E 458. Analog and Pulse Communication Systems

Prerequisite: Electrical Engineering 410.
Analog and digital communication systems. Amplitude and frequency modulation, pulse modulation, and PCM. Introduction to information theory.

## E E 483. Power Distribution Systems (3)

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.

## E E 484. Power Electronics (3)

Prerequisites: Electrical Engineering 380 and concurrent registration in Electrical Engineering 430.

Design and analysis of power electronic devices. Power semiconductor switches, switch-mode power supplies, dc-to-ac inverters, PM and PWM ac-to-ac converters. Power electronics applications. (Formerly numbered Electrical Engineering 583.)

## E E 490. Senior Design Project (4) I, II

Two lectures and six hours of laboratory.
Prerequisites: Electrical Engineering 330L, 410, 430, 434.
Supervised capstone design projects to provide integrative design experience for seniors to include ethics, professionalism, costeffectiveness, and project management.

## E E 496. Advanced Electrical Engineering Topics (1-3)

Prerequisite: Consent of instructor.
Modern developments in electrical engineering. See Class Schedule for specific content. Maximum credit nine units for any combination of Electrical Engineering 496 and 596 applicable to a bachelor's degree.
E E 499. Special Study (1-3) I, II
Prerequisite: Approval of project adviser and department chair. Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)
E E 502. Electronic Devices for Rehabilitation (3)
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.

## E E 503. Biomedical Instrumentation (3)

Prerequisites: Engineering 280; Electrical Engineering 410 and 430 (or for Mechanical Engineering majors, Electrical Engineering 303 and Mechanical Engineering 312).

Instrumentation systems to monitor, image, control, and record physiological functions.

## E E 530. Analog Integrated Circuit Design (3)

Prerequisite: Electrical Engineering 430 with minimum grade of C-
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.

## E E 534. Solid-State Devices (3)

Prerequisite: Electrical Engineering 434.
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.

## E E 539. Instrumentation Circuits I (3)

Prerequisite: Electrical Engineering 430.
Design and analysis of hybrid analog/digital electronic sub-systems incorporated into modern instrument design. Emphasis on operational amplifier based circuit design and analog-to-digital and digital-to-analog conversion processes.

## E E 540. Microwave Devices and Systems (3)

Prerequisite: Electrical Engineering 450. Recommended: Engineering 510.

Applications of Maxwell's equations to wave propagation. Microwave network parameters; guided wave transmission and reflection. Design of filters, couplers, power dividers and amplifiers. Applications in radar and telecommunications systems.

E E 540L. Microwave Design and Measurements Laboratory (1)
Three hours of laboratory.
Prerequisites: Credit or concurrent registration in Electrical Engineering 430L and 540 .

Designs, computer simulations, fabrications, and testings of microwave matching networks, couplers, filters, and amplifiers.

## E E 541. Electro-Optics (3)

Prerequisite: Electrical Engineering 434.
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.

## E E 546. Optical Fiber Communications Systems

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.

## EE553. Stochastic Signals (3)

Prerequisite: Electrical Engineering 410.
Random signals, correlation functions, power spectral densities, the Gaussian process, narrow band processes. Applications to communication systems.

## E E 556. Digital Signal Processing (3)

Prerequisite: Electrical Engineering 410 or Physics 516.
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.

## E E 558. Digital Communications (3)

Prerequisite: Electrical Engineering 458.
Design of baseband digital communication systems; noise characterization, sampling, quantization, matched filter receivers, bit-error performance, inter-symbol interference, link budget analysis.

## E E 558L. Communications and Digital Signal Processing Laboratory (1)

Prerequisite: Credit or concurrent registration in Electrical Engineering 556 or 558.

Experiments in modulation techniques, effects of noise on system performance, digital filters, and signal processing.

## E E 580. Power System Analysis (3)

Prerequisites: Engineering 280, Electrical Engineering 310 and 380.
Modern power system elements; calculation of load flow, fault currents, and system stability.

## E E 581. Power System Dynamics (3)

Prerequisite: Electrical Engineering 580.
Three-phase faults, symmetrical components, unsymmetrical faults, protective relay operating principles, economic dispatch of thermal power generation units, power system controls, voltage and power stability.

## E E 596. Advanced Electrical Engineering Topics (1-3) I, II

Prerequisite: Consent of instructor.
Modern developments in electrical engineering. See Class Schedule for specific content. Maximum credit of nine units for any combination of Electrical Engineering 496 and 596 applicable to a bachelor's degree. Maximum combined credit of six units of Electrical Engineering 596 and 696 applicable to a 30 -unit master's degree.

## GRADUATE COURSES Refer to the Graduate Bulletin.

OFFICE: Engineering 203
TELEPHONE: 619-594-6061 E-MAIL: info@engineering.sdsu.edu

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

## Faculty

Faculty assigned to teach courses in engineering are drawn from departments in the College of Engineering.

San Diego State University is in the process of securing approval for a Bachelor of Science degree in Construction Engineering. For further information, contact the Department of Civil and Environmental 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 in residence at San Diego State University.

ENGR 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)ENGR 430. Principles of Engineering Economy (3) I, II
Prerequisite: Mathematics 151.
Application of the mathematics of finance to engineering and managerial decision making.
ENGR 496. Advanced Engineering Topics (1-3) I, II
Prerequisite: Minimum grade point average of 2.0 in engineering.
Modern developments in engineering. See Class Schedule for specific content. Maximum credit six units for any combination of 496, 499 , and 596 applicable to a bachelor's degree.

UPPER DIVISION COURSE (Also Acceptable for Advanced Degrees)
ENGR 510. Methods of Analysis (3)
Prerequisite: Engineering 280 with minimum grade of C.
Selected topics from vector calculus, partial differential equations, and complex analysis, with engineering applications.

GRADUATE COURSES
Refer to the Graduate Bulletin.

## Courses (ENGR)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## ENGR 280. Methods of Analysis (3) I, II

Prerequisite: Mathematics 151 with minimum grade of C. Recommended: Mathematics 252.

Selected topics from ordinary differential equations, the Laplace transform, Fourier series, and linear algebra, with engineering applications.

OFFICE: Arts and Letters 226
TELEPHONE: 619-594-5443
FAX: 619-594-4998

## E-MAIL: EandCL@mail.sdsu.edu

http://literature.sdsu.edu

## Faculty

Emeritus: Adams, Baker, Benson, Boe, Brashear, Brown, Bumpus, Butler, Chater, Davis, Farber, Gregory, Gross, Ingham, Kehler, Kohler, Kuznets, McCaffery, McLeod, Monteverde, Moramarco, Nelson, Neumeyer, Redding, M., Redding, R., Rogers, Rother, Santangelo, Savvas, Scott, Sheres, Shojai, Stiehl, Sullivan, Tozer, Vanderbilt, Wall, Wheeler, Widmer
Chair: Little
Professors: Alcosser, Allison, Amtower, Champion (IVC), Chin, Edson, Gervais, Griswold, Herman, Hicks, Jaffe, Koolish, Little, Polkinhorn, Shumaker (IVC)
Associate Professors: Colquitt, Cummins-Lewis, Matlin, Nericcio, Stampfl (IVC)
Assistant Professors: Borgstrom, Brooks, Ramachandran, Serrato

## 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.
Major in English in preparation for the single subject teaching credential in English language arts.
English honors.
Minor in English.
Certificate in children's/adolescent literature, advanced (refer to the Graduate Bulletin).

## The Major

The study of English today encompasses a wide range of materials and approaches to ways in which both students and established writers - past and present - may use language to express feelings, convey ideas, and give aesthetic pleasure. As one of the largest English departments in California, SDSU's 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 15 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. Six units in upper division comparative literature are required.

Students preparing to obtain the single subject credential in English take a "language arts" program in which courses in communication, journalism, linguistics, and theatre supplement major concentration in English.

The English minor requires twelve units of upper division study that can be tailored to individual requirements. In addition the department offers certificates in Children's Literature.

Teaching is one of the many career opportunities available to English graduates; English studies are also good preparation for radio and television broadcasting, editing, writing, politics, film and library work, journalism, criticism, advertising, public information, public relations, and technical writing.

A study by the Modern Language Association, "English: The PreProfessional Major," shows that training in English and literature is valuable preparation for futures in law, medicine, business, and federal service.

## English

In the College of Arts and Letters

SDSU Career Services has found that liberal arts graduates in general have profited both in terms of job availability and compensation in the shift from manufacturing to service in the United States economy.

## English Major Honors

## (Standard Major)

The English honors program offers excellent students a variation of the major designed to engage them in work commensurate with their abilities. Honors students in the standard English major will take two additional upper division courses appropriate for their field of interest, in which they must maintain an A- grade point average, and successfully complete an Honors Thesis (English 499 or Comparative Literature 499). Generally, students will apply to this program in their junior year after they have completed at least nine units of lower division preparation for the major and nine units of upper division major requirements with an A- (3.7 GPA) and overall 3.5 GPA. Applicants must also submit an appropriate sample of their critical or creative work. Successful completion of the English honors program will be recognized at graduation.

## English Major Honors

## In preparation for the Single Subject Teaching Credential in English Language Arts

## With the B.A. Degree in Liberal Arts and Sciences

The English major in preparation for the single subject teaching credential in English language arts has been submitted to the California Commission on Teacher Credentialing for approval.

Contact the department for additional information.

The English honors program offers excellent students a variation of the major designed to engage them in work commensurate with their abilities. Honors students in the English major in preparation for the Single Subject Teaching Credential in English Language Arts will convert nine of the twelve units of electives into two honors courses, in which they must maintain an A- grade point average, and successfully complete an Honors Thesis (English 499 or Comparative Literature 499). Generally, students will apply to this program in their junior year after they have completed at least nine units of lower division preparation for the major and nine units of upper division major requirements with an A- (3.7 GPA) and overall 3.5 GPA . Applicants must also submit an appropriate sample of their critical or creative work. Successful completion of the English honors program will be recognized at graduation.

## Impacted Programs

The majors in English and English in Preparation for the Single Subject Teaching Credential in English Language Arts are impacted programs. To be admitted to the major in English or English in Preparation for the Single Subject Teaching Credential in English Language Arts, refer to the program description for specific impacted criteria.

## 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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 54 units in English, comparative literature, and rhetoric and writing studies courses can apply to the degree.

A minor is not required with this major.
Impacted Program. The major in English is designated as an impacted program and specific criteria are used to admit students. To be admitted to the major in English, students must meet the following criteria:
a. Complete with a minimum GPA of 2.50 and a grade of C or higher: Rhetoric and Writing Studies 200; one course from English 220, 280, 281, Comparative Literature 270A, 270B; two courses from English 250A, 250B, 260A, 260B. These courses cannot be taken for credit/no credit (Cr/NC);
b. Have a cumulative GPA of 2.40 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. English 250A or 250B; English 260A260B; Rhetoric and Writing Studies 200; three units selected from English 220, 280, 281, Comparative Literature 270A, 270B. (15 units)

Any grade requirements and GPA requirements listed above for admission to the major in English will also be enforced in Preparation for the Major requirements.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Students must have fulfilled the Writing Proficiency Assessment with a score of 8 or above before taking English 308W and earn a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 33 upper division units in English and comparative literature with approval of the adviser to include English 308W, 533, three units in British literature before 1800 (English 530, 534, 536, 537, 540A, 541A, 541B, 542), three units in British literature after 1800 (English 540B, 543, 544), six units in American literature (English 519, 520-526) including at least one period course (English 521, 522, 523, $524,525)$, six units in comparative literature or English 527, 528, or 563; and nine units of electives in any combination of courses in American, British, comparative literature, and creative writing.

English Honors Variation. Six rather than nine units of electives; six additional units of upper division coursework in English, comparative literature, or other departments, with consent of honors adviser; and Honors Thesis (English 499 or Comparative Literature 499). (39 units)

NOTE: In addition to the courses listed above, appropriate sections of English 496, 499, 549 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 Rhetoric and Writing Studies 100 and 200) an equivalent number of units of upper division courses selected with the approval of the departmental adviser.

## English Major

## In preparation for the Single Subject Teaching Credential in English Language Arts <br> With the B.A. Degree in Liberal Arts and Sciences <br> (Major Code: 15011)

The English major in preparation for the single subject teaching credential in English language arts has been submitted to the California Commission on Teacher Credentialing for approval.

Contact the department for additional information.

Requirements listed here are for the fulfillment of the English major in preparation for the single subject teaching credential in English language arts. All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education. Completion of this major also fulfills 21 units of the General Education program.

A minor is not required with this major.
Impacted Program. The major in English in Preparation for the Single Subject Teaching Credential in English Language Arts is designated as an impacted program and specific criteria are used to admit students. To be admitted to the major in English in Preparation for the Single Subject Teaching Credential in English Language Arts, students must meet the following criteria:
a. Complete with a minimum GPA of 2.50 and a grade of C or higher: Rhetoric and Writing Studies 100; English 220 or Comparative Literature 270A or 270B; six units from English 250A and 250B or English 260A and 260B; English 280 or 281. These courses cannot be taken for credit/no credit (Cr/NC);
b. Have a cumulative GPA of 2.40 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. (30 units) 18 units fulfills General Education.

1. Rhetoric and Writing Studies 100 and 200 (General Education I. 1 and 2).
2. Communication 103 (General Education I. 3).
3. English 220 or Comparative Literature 270A or 270 (3 units General Education II. C.1).
4. Communication 200.
5. Humanities 140 (General Education II.C.2).
6. Linguistics 101 (3 units General Education II.B) (Linguistics 420 may be substituted).
7. English 250A and 250B or 260A and 260B (6 units).
8. English 280 or 281.

Any grade requirements and GPA requirements listed above for admission to the major in English in Preparation for the Single Subject Teaching Credential in English Language Arts will also be enforced in Preparation for the Major requirements.

Early Field Experience Requirement. Certification of early field experience required.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Students must have fulfilled the Writing Proficiency Assessment with a score of 8 or above before taking English 308W or Rhetoric and Writing Studies 500 W and earn a grade of C (2.0) or better (see \#9 below). See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. (48 upper division units) Fulfills three units of General Education. Courses within major cannot be double-counted.
9. English 308W or Rhetoric and Writing Studies 500W.
10. English 502.
11. English 533.
12. For those who took English 250A-250B (American literature survey) select three units from English 530, 534, 536, 537, 540A, 541A, 541B, 542; and three units from English 540B, 543, 544 (no duplication with \#18 or 19). (6 units)
For those who took English 260A-260B (British literature survey) select six units from English 521, 522, 523, 524, 525 (no duplication with \#18 or 19). (6 units)
13. Comparative Literature 562 or Theatre 310.
14. Linguistics 430 or 530 .
$15^{*}$. Linguistics 452 or 550 .
16. Rhetoric and Writing Studies 509.
17. Diversity literature course: Three units selected from Africana Studies 365A, 365B, 460, 463, 464, American Indian Studies 430, Chicana and Chicano Studies 335, Theatre 465, Women's Studies 352 (General Education IV.C.) (also acceptable but non-General Education: English 519, 520, Comparative Literature $440,445,460$ ).
18. Pre-Nineteenth Century: Three units selected from Comparative Literature 512, English 521, 530, 534, 536, 537, 540A, 541A, 541B, 542.
19. Nineteenth Century to Present: Three units selected from Comparative Literature 440, 445, 460, 513, 514, English 522, 523, 524, 525, 540B, 543, 544.
20. Required Specialization: (9-12 units) Select one:
A. English: Nine additional units in any 500 -level course in English or Comparative Literature.
B. Written Expression: Nine units selected from English 570587, 508W, 584W.
C. Linguistics: ( 9 units) Three units selected from Linguistics 524, 551, 553; three units selected from Linguistics 410, $453,555,571$; three units selected from Linguistics $452^{*}$, $550^{*}, 552^{*}, 554^{*}$ (no duplication with \#14).
D. Theatre ${ }^{+}$: Theatre 325, 359, 425. (Theatre 107 required as prerequisite for this specialization.)
E. Journalism: Communication 310W, 460; Journalism 315. (Journalism 220 required as prerequisite for this specialization.)
Consult with English honors program adviser for honors program variation.

[^18]NOTE: Sections of English 526, 527, 528, 549, 563, and 596 may be substituted where appropriate if approved in writing by the English department credential adviser.

## 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 308 W , Rhetoric and Writing Studies 500W or 503W.
3. A course in literature and psychology, the bible as literature, children's literature, adolescence in literature or folk literature: English 301, 405, 491, 501, 502, Comparative Literature 470, or approved sections of special topics courses.
4. A course in contemporary literature: English 525, 544, or approved sections of special topics courses.
Fine Arts disciplines, one course from each group:
5. A course in Shakespeare: English 302 or 533.
6. A course in genre study or criticism: English 405, 501, 502, 508W, 527, 570*, 571*, 573*, 577*, 579*, Comparative Literature 561,562, 563.
7. A course in literature and other arts: English 493, Comparative Literature 594, 595, or approved sections of special topics courses.
8. A course in creative writing: English $580^{\star}, 581 \mathrm{~W}^{\star}, 583^{*}, 584 \mathrm{~W}^{\star}$, $587^{*}$, or approved sections of special topics courses.
Business disciplines, one course from each group:
9. A course in expository writing: English 308W, Rhetoric and Writing Studies 500W or 503W.
10. A course in Shakespeare, literature and psychology, literature and film, or modern American fiction: English 301, 302, 491, 493, 494, 533.
11. A course in American literature: English 519, 520, 521, 522, 523, 524,525 , or approved sections of 526 .
12. A course in British literature: English 536, 540A, 540B, 541A, $541 \mathrm{~B}, 542,543$, or approved sections of 549 , and special topics courses.
Humanities disciplines, one course from each group:
13. A course in Shakespeare: English 302 or 533.
14. A course in genre study or criticism: English 405, 501, 508W, 527, $570^{*}, 571^{*}, 573^{*}, 577^{*}, 579^{*}$, Comparative Literature 561, 562, 563.
15. A course in literary history: English 521-525, 536, 537, 542, 543, or 544, Comparative Literature 512, 513, 514.
16. 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:
17. A course in technical writing: Rhetoric and Writing Studies 503W*.
18. A course in Shakespeare or Bible as Literature: English 302, 405, 533.
19. A course in literature and psychology, literature and film, modern American fiction, or children's literature: English 301, 491, 493, $494,501,502$, or approved sections of other special topics courses.
20. A course in literary history: English 521-525, 536, 542, 543, or 544, Comparative Literature 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 in residence at San Diego State University.

## Courses (ENGL)

Refer to Courses and Curricula and University Policies sections of this cata$\log$ for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

ENGL 100. Rhetoric of Written Argument (3) [GE] I, II
(Same course as Rhetoric and Writing Studies 100.)
International students are advised to take Linguistics 100.
Prerequisites: Satisfaction of the SDSU writing competency requirement. (See Graduation Requirements section of catalog.) Proof of completion of prerequisites required: Copy of EPT or competency scores or verification of exemption; proof of credit (Cr) in Rhetoric and Writing Studies 92A or 92B or 97.

Writing and reading as critical inquiry, designed to help students undertake university-level writing projects. Focus on rhetoric of written arguments. Students learn to use sources in their writing and make appropriate decisions about structure, cohesion, and rhetorical conventions. Not open to students with credit in a higher numbered composition course or Rhetoric and Writing Studies 100 or 101 or Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100.

## ENGL 200. Rhetoric of Written Arguments in Context (3) [GE] I, II

(Same course as Rhetoric and Writing Studies 200.)
International students are advised to take Linguistics 200.
Prerequisites: Satisfaction of the SDSU writing competency requirement and Rhetoric and Writing Studies 100 or 101 or Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

Further practice in writing, reading, and critical thinking. Emphasis on rhetoric of written arguments in context and using multiple sources in writing. Continued attention to structure, cohesion, and rhetorical conventions. Not open to students with credit in Africana Studies 200, Chicana and Chicano Studies 200, General Studies 260D, or Linguistics 200 or Rhetoric and Writing Studies 200. Completion of Rhetoric and Writing Studies 200 may require completion of the library workbook assignment.

ENGL 220. Introduction to Literature (3) [GE] I, II
Prerequisite: A grade of C (2.0) or better in English 100, Africana Studies 120 or Chicana and Chicano Studies 111B or Linguistics 100 or General Studies 260A or Rhetoric and Writing Studies 100 or 101. Proof of completion of prerequisite required: Copy of transcript.

Inquiry into basic nature of literature. What prompts humankind to creation of imaginative literature? What purposes does literature serve in 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 focus will be on practical criticism for nonspecialists. Specific works studied will be representative of several genres, cultures, and periods of literature.
ENGL 250A-250B. Literature of the United States (3-3)
Prerequisite: A grade of C (2.0) or better in English 100, Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.

United States literature from colonial period to present. Semester I: from beginning to Civil War. Semester II: Civil War to present. Recommended for English majors.

## ENGL 260A-260B. English Literature (3-3) I, II

Prerequisite: A grade of C (2.0) or better in English 100, Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.

English literature from Anglo-Saxon period to present, with emphasis on major works in literary tradition. Semester I: Ends with neoclassical period. Semester II: Begins with Romantic writers.
ENGL 280. Introduction to Creative Writing (3) I, II
Prerequisite: A grade of C (2.0) or better in English 100, Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.

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.

## ENGL 281. Creative Writing: Selected Genres (3)

Prerequisite: A grade of C (2.0) or better in English 100, Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.

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.

## ENGL 296. Experimental Topics (1-4)

Prerequisite: A grade of C (2.0) or better in English 100, Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.

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)

## ENGL 301. The Psychological Novel (3) [GE] 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.

## ENGL 302. Introducing Shakespeare (3) [GE] 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.

## ENGL 306A-306W. Children's Literature and Advanced Composition (3-3) I, II

Prerequisites: English 200 or Rhetoric and Writing Studies 200. English 306A and 306W must be taken concurrently. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. 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.

## ENGL 308W. Literary Study: Analysis, Research, and Writing (3) I, II

Prerequisite: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

Methods of literary analysis; concepts and terminology of literary study; research methods. Modes of writing about literature, with emphasis on the research paper.
ENGL 405. The Bible as Literature (3) [GE] 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.
ENGL 409. Science Fiction (3) [GE]
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

How authors have responded to growing impact of science and technology on people's lives and imaginations. Representative works by authors such as Kobo Abe, Bradbury, Butler, Delaney, DeLillo, Dick, Gibson, Heinlein, Hoban, Huxley, Kapek, LeGuin, Murakami, Orwell, Poe, Russ, Shelley, Verne, Wells, Zamyatin, and others.
ENGL 410. Literature and the Passions (3) [GE]
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Studies literature and the passions (grief and melancholy, anger and rage, and love) with emphasis on language and rhetorical techniques writers employ to construct emotion. Writers may include Emily Bronte, Raymond Carver, Chretien de Troyes, DuBois, Emerson, Homer, Melville, and Shakespeare.
ENGL 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.

## ENGL 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.

ENGL 494. Modern Fiction of the United States (3) [GE] 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.

## ENGL 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.

## ENGL 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.

## ENGL 501. Literature for Children (3) I, II

Critical analysis of literature intended for children. Study of texts and illustrations.
ENGL 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.

## ENGL 503. Topics in Children's Literature (3)

Topics in children's and adolescents' literatures such as regionalism, multiculturalism, fantasy, science fiction, non-fiction, illustrated books, nineteenth-century classics, major works by twentieth-century authors, British children's literature, the noir young adult novel, and the history of genre. Maximum credit six units.
ENGL 508W. The Writing of Criticism (3) I, II
Prerequisites: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. 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.

## ENGL 510. Teaching Literature (3)

Prerequisite: Six units in 500-level literature courses.
Theory and practice of teaching literature in high schools, colleges, and universities; various critical approaches (such as feminist, new historical, deconstruction, reader response) to literature and their implications for teaching and developing teaching styles.
ENGL 519. Ethnic Literatures of the United States (3) I, II
Prerequisite: Six units in literature.
Works from United States ethnic literatures, with emphasis on formerly excluded traditions as African-American, Hispanic and Chicano, Asian-American, and American Indian.

## ENGL 520. African-American Literary Tradition

## 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.

ENGL 521. Early American Literature (3) I, II
Prerequisites: Six lower division units in literature.
Representative works by American writers from the colonial period through the Revolution; to include works by Anne Bradstreet, Phillis Wheatley, Olaudah Equiano, Cotton Mather, Jonathan Edwards, Benjamin Franklin, Thomas Jefferson, various Native American speakers and writers, and others.
ENGL 522. Literature of the United States, 1800-1860 $\quad$ (3) I, II
Representative works by United States writers from 1800 to 1860; likely to include works by Emerson, Hawthorne, Melville, Poe, Stowe, Thoreau, Whitman, and others.
ENGL 523. Literature of the United States, 1860-1920 $\quad$ (3) I, II
Representative works by United States writers from 1860 to 1920; likely to include works by Charles Chesnutt, Kate Chopin, Stephen Crane, Emily Dickinson, Henry James, Mark Twain, Edith Wharton, and others.
ENGL 524. Literature of the United States, 1920-1960 (3) I, II
Representative works by United States writers from 1920 to 1960; likely to include works by Willa Cather, T. S. Eliot, William Faulkner, F. Scott Fitzgerald, Ernest Hemingway, Zora Neale Hurston, Eugene O'Neill, Katherine Anne Porter, Ezra Pound, John Steinbeck, and others.

## ENGL 525. Literature of the United States, 1960 to Present (3) I, II

United States writers from 1960 to the present; likely to include works by Edward Albee, Saul Bellow, Allen Ginsberg, Joseph Heller, Maxine Hong Kingston, Norman Mailer, Toni Morrison, Sylvia Plath, Adrienne Rich, Kurt Vonnegut, Eudora Welty, and others.
ENGL 526. Topics in Literature of the United States (3)
Topics in United States literature to include the literature of the South, Black writers in the U.S., the frontier and U.S. literature, the outcast in U.S. literature, the immigrant experience in U.S. literature. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

## ENGL 527. Genre Studies (3)

Study of a specific literary genre or genres, such as the novel, tragedy, epic, and lyric. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.
ENGL 528. Authors (3)
Works of a major author or, if useful comparisons and juxtapositions warrant, works of two or three authors, such as Jane Austen, Melville, Emerson, and Thoreau. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.
ENGL 530. Chaucer (3)
Chaucer's works, with emphasis on The Canterbury Tales and Troilus and Criseyde.
ENGL 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.
ENGL 534. Study of Shakespeare (3)
Prerequisite: English 533.
Advanced study of Shakespeare's achievement as poet and playwright. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.
ENGL 536. British Literary Periods, Beginnings to 1660 (3)
Prerequisite: Six lower division units in literature and/or creative writing courses.

Study of a literary period such as the Middle Ages or Renaissance. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.
ENGL 537. Milton (3)
Milton's writings, with emphasis on Paradise Lost.

ENGL 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.

## ENGL 541A-541B. English Drama (3-3)

English dramatic literature from its beginnings to the present. Semester I: From the beginning to 1642. Semester II: Period following reopening of the theatres in 1660.

## ENGL 542. British Literary Periods, 1660-1800 (3)

Prerequisite: Six lower division units in literature and/or creative writing courses.

Study of a literary period such as the Restoration or Enlightenment. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

## ENGL 543. British Literary Periods, 1800-1900 (3)

Prerequisite: Six lower division units in literature and/or creative writing courses.

Study of a literary period such as the Romantic or Victorian Age. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

## ENGL 544. British Literary Periods, 1900-Present (3)

Prerequisite: Six lower division units in literature and/or creative writing courses.

Study of a literary period such as the Postmodern Era. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

## ENGL 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.

## ENGL 563. Literature and Culture (3)

Prerequisite: Six lower division units in literature and/or creative writing courses.

Study of literature in relation to a specific culture idea or phenomenon, such as literature and the law, literature and technology. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

## ENGL 570. Techniques of Poetry <br> 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.

## ENGL 571. Techniques of the Short Story <br> (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.

## ENGL 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.
ENGL 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.
ENGL 577. Techniques of Screenwriting (3)
Prerequisite: English 280 or Television, Film, and New Media 110 or 510 for television, film, and new media majors.

Techniques of screenwriting. Introduction to critical and theoretical literature on screenwriting. Includes a creative writing workshop.

## ENGL 579. Topics in Creative Writing <br> (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.

## ENGL 580. Writing of Poetry (3) I, II

Prerequisite: English 570.
A creative writing workshop in poetry. Continuation of English 570. Maximum credit six units.

## ENGL 581W. Writing of Fiction (3) I, II

Prerequisites: English 280. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. 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.

## ENGL 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.

## ENGL 584W. Writing Informal Essays (3) I, II

Prerequisites: English 280. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. 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.

## ENGL 587. Writing the Screenplay (3)

Prerequisite: English 577 or Television, Film, and New Media 110 or 510 for television, film, and new media 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.

## ENGL 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.

# Environmental Engineering 

## In the College of Engineering

OFFICE: Engineering 424
TELEPHONE: 619-594-6071
E-MAIL: environmental@engineering.sdsu.edu

The undergraduate degree in Environmental Engineering is accredited by the American Board for Engineering and Technology.

## Faculty

Emeritus: Stratton
Chair: Supernak
The Blasker Chair in Environmental Engineering: Gurol
The William E. Leonhard, Jr. Chair in Civil and Environmental Engineering: Forman
Professor: Gurol
Assistant Professors: Badriyha, Buyuksonmez, Forman

## Offered by the Department of Civil and Environmental Engineering

Doctor of Philosophy degree in engineering sciences/applied mechanics
Master of Engineering in manufacturing and design.
Master of Science degree in civil engineering.
Concentration in environmental engineering.
Major in environmental engineering with the B.S. degree.

San Diego State University is in the process of securing approval for a Bachelor of Science degree in Construction Engineering. For further information, contact the Department of Civil and Environmental Engineering.

## Mission of the Department

The mission of the Department of Civil and Environmental Engineering is to provide a high quality undergraduate and graduate education in the civil and environmental engineering areas as well as the advising and other support needed to ensure the students' academic success and preparation for a productive engineering career. In addition, through research and continuing professional development, the faculty produce, enhance and promote new developments within their areas of expertise for the benefit of society and the furtherance of their profession.

The objective of the program is to give the student a basic knowledge of civil and environmental engineering, as well as the interdisciplinary background and skills to meaningfully participate in and contribute technical advances toward this profession. The program integrates technical aspects with studies in the social sciences and humanities to ensure appropriate sensitivity to socially related problems.

Instruction is given both at the undergraduate level, leading to the bachelor's degree, and at the graduate level, leading to the master's or doctoral degrees. The undergraduate program builds upon concepts of mathematics, physics, chemistry and basic engineering with specialized study in civil and environmental engineering. Engineering design is emphasized, particularly in conjunction with computer utilization and practical civil and environmental engineering problems.

Aspects of safety and engineering ethics are woven throughout the program. Breadth and depth of social science and humanities studies is assured by department approved courses. Completion of the undergraduate degree prepares the student for an entry-level professional position in addition to informal or formal graduate studies.

Many students who complete the civil or the environmental undergraduate program choose to continue their formal studies on a full or part-time basis at San Diego State University or at another institution. (See the Graduate Bulletin for additional information.) The objective of the graduate program is to broaden the student's technical competence and design abilities and allow for additional specialization.

The civil and environmental engineering program is enhanced through cooperation with the American Society of Civil Engineers, the American Public Works Association, the Associated General Contractors, the Chi Epsilon Civil Engineering Honor Society, and other national organizations who sponsor student chapters to further aid the student's professional development. The chapters at San Diego State University have won many awards in regional and national competition with other schools throughout the country.

## Educational Objectives

The objectives of the environmental engineering program at San Diego State University are:

1. To graduate engineers with core competency in multiple areas of the environmental engineering profession.
2. To inspire in students the logical thinking approach to problem solving based on sound science, engineering principles, and economic considerations.
3. To prepare students for the challenges ahead in the work place and for the ethical, social, and legal dilemmas associated with environmental issues.
4. To instill in graduates a quest for knowledge and self-improvement through continual, life-long learning and professional interaction.

## The Blasker Chair in Environmental Engineering

The Blasker Chair in Environmental Engineering was established by an endowment from the Blasker-Rose-Miah Endowment Fund of the San Diego Foundation. The fund was created in honor of Mr. Samuel Blasker who left $\$ 8.0$ million to the San Diego Foundation. Mr. Blasker was a successful aeronautical engineer and a business man with a vision to nurture and develop unique and innovative discoveries and experiences which may be of benefit to humanity.

The first appointee to the chair, Dr. Mirat D. Gurol, is an accomplished scholar and researcher in the areas of innovative treatment technologies of contaminated water, air, soil, and hazardous waste.

## The William E. Leonhard, Jr. Chair in Civil and Environmental Engineering

The William E. Leonhard, Jr. Chair in Civil and Environmental Engineering is funded with an endowment created by generous gifts from William G. Leonhard, Jr. and his parents, William E. and Wyllis M. Leonhard. After Bill Leonhard graduated from San Diego State in 1964, he entered a career in the Air Force, rising to the rank of colonel. In January 1990, he retired from the Air Force, spent the next several years in private industry, and retired again in 1998. The first appointee to the chair is Assistant Professor, Dr. Selena Forman, an expert in sediment water interactions, contaminated sediment transport, and river restoration design.

## 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 American Board for Engineering and Technology, 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, unaccredited work will be evaluated for full or partial credit.

## 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. No more than twelve units may be used for General Education credit from any one department or academic unit. No more than 7 units from one department can be used in Sections II and IV combined (Foundations and Explorations), nor more than 10 units from one department in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).
I. Communication and Critical Thinking: 9 units You may not use Credit/No Credit grades in this section.

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)
II. Foundations: 29 units
A. Natural Sciences and Quantitative Reasoning (17 units):
4. Physical Sciences (11 units)

Engineering students will take Chemistry 200 which includes a laboratory (5 units).
Physics 195 (3 units)
Physics 196 (3 units)
2. Life Sciences (3 units)

Environmental engineering majors will take Biology 201B, 3 units applicable to General Education.
3. Laboratory (satisfied under A.1. above)
4. Mathematics/Quantitative Reasoning

Engineering students will take Mathematics 150, 3 units applicable to General Education. You may not use Credit/No Credit grades.
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: Courses in this area must not be taken sooner than the semester in which you achieve upper division standing (60 units passed). Upper division courses in the major department may not be used to satisfy General Education. Total: 9 units; must include one course of cultural diversity.
A. Upper division Humanities (3 units)

Three units must be taken from the same department as one of the Humanities courses selected in Foundations.
B. Upper division Humanities (3 units from a department not selected in A above.)
C. Upper division Social and Behavioral Sciences (3 units)

## The Major

Environmental engineering involves the identification and design of solutions for environmental problems. Society's most crucial environmental problems, such as providing safe drinking water, treatment and proper disposal of wastes, water and air pollution control, remediation of sites contaminated with spills or improper disposal of hazardous substances, are handled by environmental engineers. Environmental engineers are technical professionals who possess the scientific knowledge to identify, design, build and operate systems that protect the environment from the impact of human activities, and as such make modern society possible.

The environmental engineering field and environmental engineering education are multidisciplinary. The B.S. degree provides a solid foundation in the fundamentals of mathematics, physics, chemistry, and engineering design that are needed to practice the profession or to pursue a graduate degree. Environmental engineering education also includes a range of other disciplines, such as biology, computer science, ecology, economics, geological sciences, and public health. To be able to address the spectrum of issues facing the environment, environmental engineers are broadly educated, as well as technically trained.

Environmental engineers are needed in both the private and public sectors. They are employed by engineering consulting firms that work in environmental pollution control, industries that need to comply with pollution emission and discharge regulations, private and municipal agencies that supply drinking water, treat and dispose wastes, government agencies that monitor and regulate waste discharges and air emissions, private and government laboratories, and universities that conduct environmental research, international agencies that transfer knowledge to the developing world, and public-interest groups that advocate environmental protection.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Environmental Engineering Major

With the B.S. Degree (Major Code: 09221)
NOTE: See chart on the following page for the recommended sequence of courses for the major in environmental engineering.

All students in environmental engineering pursue a common program of study in basic sciences, engineering, and environmental engineering fundamentals and design. The program allows six units of "professional electives" which can be selected from available courses in environmental chemistry, environmental microbiology, water resources, and other areas.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Master Plan. A master plan of elective courses must be approved by the undergraduate adviser and filed with the Office of Advising and Evaluations as soon as the environmental engineering major is declared. Students are required to see their undergraduate adviser prior to registration each semester.

The following is a recommended sequence of courses for the major in environmental engineering. See General Education in this section for specific GE requirements.

## ENVIRONMENTAL ENGINEERING MAJOR

## FRESHMAN YEAR

| Fall Semester | Units | Spring Semester | Units |
| :---: | :---: | :---: | :---: |
| GE Composition.. | 3 | GE Intermediate Composition.. | 3 |
| GE Oral Communication. | 3 | Major Preparation: CHEM 130 | 3 |
| GE Math/Major Prep: MATH 150. | 4 | Major Preparation: CIV E 121. | 2 |
| GE Phys Science/Lab/Major Prep: CHEM 200. | 5 | Major Preparation: ENV E 101.. | 2 |
| Major Preparation: CIV E 120. | 3 | Major Preparation: MATH $151 . .$. | 4 |
|  |  | GE Phys Science/Major Prep: PHYS 195 | 3 |
|  | 18 |  | 17 |


| Fall Semester | Units | Spring Semester | Units |
| :---: | :---: | :---: | :---: |
| Major Preparation: MATH 252 | 4 | Take the Writing Proficiency Assessment Examination |  |
| GE Phys Science/Major Prep: PHYS 196. | 3 | GE Life Science/Major Prep: BIOL 201B | 4 |
| Major Preparation: CIV E 220. | 3 | Major Preparation: CIV E 160. | 2 |
| Major Preparation: E M 202 | 3 | Major Preparation: PHYS 197 | 3 |
| GE Social and Behavioral Science . | 3 | Major Preparation: ENGR $280 .$. | 3 |
|  |  | GE Humanities ....................... | 3 |
|  | 16 |  | 15 |


| Summer Semester | Units |
| :---: | :---: |
| GE Humanities. | 3 |
| GE Humanities. | 3 |

## JUNIOR YEAR

| Fall Semester | Units | Spring Semester | Units |
| :---: | :---: | :---: | :---: |
| Major: ENV E 355 | 3 | Major: ENV E 553. | 3 |
| Major: E M 340. | 3 | Major: ENV E 556. | 3 |
| Major: E M 341. | 1 | Major: CIV E 444 | 3 |
| Major: ME 352. | 3 | Major: BIOL 315. | 3 |
| Major: ENGR $430 .$. | 3 | Professional Elective. | 3 |
| GE Explorations: Humanities*. | 3 |  |  |
|  | 16 |  | 15 |


| Fall Semester | Units | Spring Semester | Units |
| :---: | :---: | :---: | :---: |
| Major: ENV E 455. | 3 | GE Explorations: Humanities*. | 3 |
| Major: ENV E 554. | 3 | GE Explorations: Social and Behav. Sciences.. | 3 |
| Major: ENV E 558. | 3 | American Institutions | 3 |
| Major: GEOL 551. | 3 | Professional Elective. | 3 |
| American Institutions. | 3 | Major: CIV E 495 | 3 |
|  | 15 |  | 15 |

[^19]
## Courses (ENV E)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Note: Proof of completion of prerequisites (copy of transcript) is required for all courses which list prerequisites.

## LOWER DIVISION COURSES

## ENV E 101. Environmental Engineering Seminar (2) I

Breadth and depth of environmental engineering field through presentations by invited faculty, graduate students, guests and seminar enrollees; including individual library research with written and oral presentations on selected environmental topics.
ENV E 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)

## ENV E 320. Designing Solutions for Environmental Problems (3) [GE] I, II

Prerequisites: Upper division standing and completion of the General Education requirement in Foundations, II.A. Natural Sciences and Quantitative Reasoning

Human interaction with the land, water and air environment; environmental pollution; role of engineering in solving environmental problems. Not open to civil or environmental engineering majors.

## ENV E 355. Environmental Engineering <br> (3) I, II

Prerequisite: Chemistry 200.
Causes and effects of environmental problems and engineering methods to control them.

## ENV E 455. Water and Wastewater Engineering (3) I

Prerequisites: Minimum grade of $C$ in Environmental Engineering 355, Civil Engineering 444, and Engineering Mechanics 340.

Water and wastewater. Physical, chemical, and biological methods of treatment. Advanced water treatment processes. Water reclamation. (Formerly numbered Environmental Engineering 555.)

## ENV E 496. Advanced Environmental Engineering

 Topics (1-3) I, IIPrerequisites: Minimum grade point average of 3.0 and consent of instructor.

Modern developments in environmental engineering. See Class Schedule for specific content. Maximum credit six units for any combination of Environmental Engineering 496, 499 and 596.
ENV E 499. Special Study (1-3) Cr/NC I, II
Prerequisites: Minimum grade point average of 3.0 and consent of instructor.

Individual study in the area of environmental engineering. Maximum credit six units for any combination of Environmental Engineering 496, 499 and 596.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

ENV E 553. Environmental Engineering Laboratory (3)
Two lectures and three hours of laboratory.
Prerequisites: Chemistry 200 and Environmental Engineering 355.
Analysis of natural waters and wastewaters. Sampling and analysis of hazardous environmental pollutants. Techniques to analyze solid waste.

## ENV E 554. Process Fundamentals of Environmental

 Systems (3) IPrerequisites: Minimum grade of C in Environmental Engineering 355, Civil Engineering 444, Engineering Mechanics 340, and Mechanical Engineering 352.

Equilibrium and kinetics of chemical and biological reactions of environmental systems. Considerations of mass-transfer and fluid dynamics in water quality management and air pollution control.

## ENV E 556. Air Pollution Engineering (3)

Prerequisite: Environmental Engineering 355.
Sources of air pollutants. Transportation, dispersion, and transformation of pollutants in the atmosphere. Measurement and control of air pollution.

## ENV E 558. Solid and Hazardous Waste Engineering

Prerequisite: Environmental Engineering 355.
Municipal solid and hazardous solid wastes from an environmental 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.

## ENV E 596. Advanced Environmental Engineering

 Topics (1-3) I, IIPrerequisites: Minimum grade point average of 3.0 and consent of instructor.

Modern developments in environmental engineering. See Class Schedule for specific content. Maximum credit of six units for any combination of Environmental Engineering 496, 499 and 596 applicable to a bachelor's degree. Maximum combined credit of six units of Environmental Engineering 596 and 696 applicable to a 30-unit master's degree

GRADUATE COURSES
Refer to the Graduate Bulletin.

For additional courses which are electives in the environmental engineering program, refer to "Civil Engineering" in this section of the catalog.

# Environmental Sciences 

In the College of Sciences

OFFICE: Geology/Mathematics/Computer Science 604<br>TELEPHONE: 619-594-5142<br>FAX: 619-594-6381

The environmental sciences major is overseen by the College of Sciences and administered by the Environmental Sciences Program Committee. The major includes courses offered mostly in departments of the College of Sciences, with some courses in departments in other colleges of the university.

## Faculty

Environmental Sciences Program Director and Undergraduate Adviser: Sweedler (Physics)
Environmental Sciences Program Committee: Chatfield (Chemistry and Biochemistry), Deutschman (Biology), Ganster (Regional Studies of the Californias), Matt (Psychology), Sweedler (Physics), Thorbjarnarson (Geological Sciences), Van Schoik (Southwest Consortium for Environmental Research and Policy)

## Offered by the College of Sciences

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

Emphasis in watershed science.

## The Major

Environmental sciences is an interdisciplinary program leading to a Bachelor of Science degree in applied arts and sciences. The program will provide the student with a rigorous and broad foundation in those sciences most relevant to environmental issues. While the focus is on the physical environmental sciences, some coursework is required in biology, computer science, geography, and statistics. Those students wishing to concentrate more on the biological aspects of the environment, should consider the ecology emphasis offered by the Department of Biology.

Upon completion of the degree, students will be prepared to understand and contribute to a broad range of environmental problems confronting society. This major should be especially attractive to students who wish a broader background in the environmental sciences than is easily offered by individual departments. The major will prepare the student for employment in diverse situations in the dynamic and ever-changing environmental science job market. It will also be an excellent undergraduate major for students planning to go on to graduate school in any of the environmental sciences.

## Advising

Students are required to meet with the undergraduate adviser in order to declare the major. Students wishing to major in environmental sciences are urged to meet with the adviser during their first semester.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Environmental Sciences Major

## With the B.S. Degree in Applied Arts and Sciences (Major Code: 49011)

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 are filed with both the environmental sciences adviser and the Office of Advising and Evaluations.

A minor is not required with this major.
Preparation for the Major. Environmental Sciences 100; Biology 201A, 201B; Biology 215 or Statistics 250; Chemistry 200, 201, 231; Computer Science 205; Geological Sciences 100, 101; Geography 103; and Mathematics 150, 151, Physics 195, 195L, 196, 196L, or Mathematics 121, 122, Physics 180A, 180B, 182A, 182B. (52-54 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Environmental Sciences 498A-498B; Biology 354; Geography 508 or 511; Geography 484 or 587 or Geological Sciences 505; Geological Sciences 305 or Environmental Engineering 355; Geological Sciences 545; 15 units selected from Biology 350, 517, 540, Chemistry 571, Computer Science 558, Economics 452 or 453, Geography 570,572, 574, Geological Sciences 530 or 551, Mathematics 336.

## Emphasis in Watershed Science

Environmental sciences has a strong geographic component. Understanding how vegetation, soils, climate, water, and human activities interact within a spatial context is the basis for watershed analysis. Students in this emphasis will a) acquire a fundamental background in the scientific fields that contribute to watershed analysis (geology and geomorphology, hydrology, ecology, and climatology) and b) develop skills and techniques that are important in applying and integrating this knowledge within a spatial context to address watershed science and management challenges at local to regional scales.

Preparation for the Major. Environmental Sciences 100; Biology 201A, 201B; Biology 215 or Statistics 250; Chemistry 200; Geography 103; Geological Sciences 100, 101; and Mathematics 121, 122, Physics 180A, 180B, 182A, 182B; or Mathematics 150, 151, Physics 195, 195L, 196, 196L. (40-42 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 40-41 upper division units to include Biology 354 ; Geography $380,385^{*}, 401^{*}, 483^{*}$, 484 or $587^{*}, 495,511^{*}$; Geological Sciences 305; 15 units selected from the following courses, at least 12 units must be from 500-level courses selected from Biology 531, 535,540 , Geography $370^{*}, 504^{*}, 505,570,584$ or 588, Philosophy 332, Physics 301, Public Administration 320.

[^20]
## Courses (env s)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## ENV S 100. Environmental Sciences <br> (3)

The earth as an ecosystem composed of biological, chemical, and physical systems and how these systems interact with one another and the human population.

ENV S 299. Special Study (3)
Prerequisite: Consent of program director and instructor.
Individual Study.

UPPER DIVISION COURSES

## (Intended for Undergraduates)

## ENV S 498A-498B. Senior Seminar in Environmental

 Sciences (3-3)Prerequisite: Senior standing in the environmental sciences major
Research projects related to an environmental issue in the San Diego and California region


# European Studies 

## In the College of Arts and Letters

OFFICE: Business Administration 304
TELEPHONE: 619-594-5111 FAX: 619-594-8006
E-MAIL: euro.coord@sdsu.edu

## Faculty

Chair: Benkov
Professors: Benkov, Loughrin-Sacco, Lyman-Hager, Schorr, Shapovalov
Associate Professors: Cornwell, Donadey, Wauchope
Assistant Professor: Clò

## Offered by the Department

Major in European studies with the B.A. degree in liberal arts and sciences.
Major in Russian and Central European studies with the B.A. degree in liberal arts and sciences.
Minor in European studies.

## The Majors

European Studies. The establishment of a unified European economic community, contested borders in central and eastern Europe, gender and immigration issues in the European Union, the reconciliation of national identity with European integration - for students with an interest in these or other topics of international importance, European Studies presents an opportunity to develop an individualized academic program. The European Studies major provides students with interdisciplinary study of the contemporary cultures of modern Europe and extensive preparation in a modern European language. The major requires a core of European Studies courses which address the themes and issues of modern Europe: the new political reality of a united Europe, the recent developments in Central and Eastern Europe, and the tasks of understanding how Europeans relate to themselves and to the rest of the world in today's global village. Because language proficiency plays a pivotal role in intercultural and social understanding, the study of languages is an integral part of the degree. Students will attain an advanced level of proficiency in a modern European language (to be selected from French, German, Italian, Portuguese, Russian, or Spanish) and select from courses offered in a variety of programs on campus and abroad which contribute to the interdisciplinary study of contemporary European culture. Reaching beyond traditional linguistic and historical approaches to the subject, this program challenges majors to develop critical, focused, interdisciplinary understandings of European themes and issues. The European Studies major prepares students for a variety of careers in diplomacy, with government agencies, or in European-centered commerce, communication, arts or the travel industry. Students also have the option of pursuing a double major in a second European language area study. Finally, with some carefully chosen additional coursework outside the major, graduate study in any of the major's disciplines is an option.

Russian and Central European Studies. The goals of the Russian and Central European studies major are to promote the study of Russia, New States of Eurasia, and Eastern Europe within an integrated framework, and to build better understanding of the societies and cultures of this part of the world through the exchange of students, faculty and publications.

Recent revolutionary advances in transportation and communications produced by science and technology are effectively "shrinking" the world. At the present time the United States, Russia, and the New States of Eurasia are in the process of expanding their commercial and cultural ties, opening unprecedented opportunities in government service, journalism, library work, and international business.

For those who continue graduate work after completing the bachelor's degree, Russian and Central European studies is a good preparatory curriculum for graduate professional programs in international trade, international law, librarianship, education, public administration, and journalism.

## Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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."

A minor is not required with this major.
In order to satisfy degree requirements, students must complete at least one of the language emphases as described below.

Preparation for the Major. (Complete I and II: 19-32 units.)
I. European Studies (9 units). European Studies 101, History 105 and 106.
II. Foreign Language and Culture (Select one: 10-23 units.)

French 100A, 100B, 201, 210, 220, 221. (22 units)
German 100A, 100B, 202, 205A, 205B. (21 units)
Italian 100A, 100B, 201, 210. (16 units)
Portuguese 101, 201. (10 units)
Russian 100A, 100B, 110, 200A, 200B. (23 units)
Spanish 101, 102, 103, 202, 211, 212. (22 units)
Language Requirement. The language requirement is automatically fulfilled through coursework for the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(W)$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

International Experience Requirement. All European studies majors are required to complete a study abroad program in a European country, consisting of a minimum of six units ( 90 hours). However, European studies majors are strongly encouraged to complete a more extensive abroad experience by participating in a semester or an academic year program. To fulfill the study abroad requirement, European studies majors must enroll in an approved program. Unapproved study abroad programs will not meet the international experience requirement for the major.

Major. (Complete I, II, III, and IV below: 36 units.)
I. European Studies (12 units). European Studies 301, 501, and six units selected from any 400- or 500-level European studies courses.
II. National Language and Culture Emphasis (12 units). Complete one language and culture emphasis:

French 301, 421, 422, and one additional three unit course.
German 301, 400, 430, and one additional three unit course.
Italian 301, 422, 424, and one additional three unit course.
Portuguese 301, 401, 534, and one additional three unit course.
Spanish 301, 340, 405B, and Spanish 302 or 381.
Russian 301, 311, 430, and one additional three unit course.
III. European Studies Electives ( 6 units). Select six units from the following: European Studies 501, 527; Art 558, 559; Comparative Literature 514; Geography 336; History 408, 440, 512A, 512B; Humanities 404; Music 408A; Philosophy 506, 508; Political Science 302, 356; Russian 435; Women's Studies 340.
IV. National Culture Electives (6 units). Courses must be selected from an area other than courses selected for National Language and Culture Emphasis. Select six units from the following: English 544; French 424; German 320; History 418, 518; Humanities 310, 320, 330; Italian 422; Political Science 357, 359; Russian 305A, 305B.
Language Proficiency Exit Examination. Students are required to satisfy the Language Proficiency Exit Examination before graduation. To clear the language proficiency exit requirement, students must achieve a passing score on a language examination approved by the European Studies program. For further information concerning test dates, contact the European Studies office.

## Russian and <br> Central 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, 110, 200A, 200B; Economics 102. (26 units)

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

International Experience Requirement. All Russian and Central European Studies majors are required to complete a study abroad program in Russia or any other Slavic-language speaking country, consisting of a minimum of six units ( 90 hours). However, all majors are strongly encouraged to complete a more extensive abroad experience by participating in a semester or academic year program. To fulfill the study abroad requirement, Russian and Central European Studies majors must enroll in an approved program. Unapproved study abroad programs will not meet the international experience requirement for the major.

Major. A minimum of 27 upper division units to include Economics 330, History 518, Humanities 330 or Russian 430, Political Science 359, Russian 301, 310, 311, and six units of electives in 400- or 500level courses in Russian.

## European Studies Minor

The minor in European studies consists of a minimum of 15 units to include European Studies 101 and 301 and nine additional upper division units from European Studies courses or Humanities 404. Students must also establish proficiency level in a European language other than English by completing one of the courses which satisfies the language graduation requirement or demonstrates equivalent proficiency.

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 in residence at San Diego State University, including units earned abroad.

## Courses (EUROP)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## EUROP 101. Introduction to European Studies (3) [GE] I, II

Europe: The land, the people, their artistic, intellectual and cultural movements, including art, architecture, languages and literatures.

## EUROP 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 <br> (Intended for Undergraduates)

## EUROP 301. Contemporary Europe (3) [GE] I

Prerequisites: European Studies 101 for majors, and completion of the General Education requirement in Foundations II.C., Humanities for nonmajors.

Contemporary Europe, emphasizing artistic, intellectual, and cultural trends, as well as contemporary issues.
EUROP 424. European Cinema (3) [GE]
Two lectures and two hours of activity.
Prerequisites: European Studies 101 for majors, and completion of the General Education requirement in Foundations II.C., Humanities for nonmajors.

Issues and themes in European culture as seen through its films. May be repeated with new title and content. Maximum credit six units.

## EUROP 495. European Studies Internship (3) $\mathrm{Cr} / \mathrm{NC}$

Prerequisite: Upper division standing in the major and consent of instructor.

Practical work experience in a field related to European studies. Work done under joint direction of activity sponsor and instructor. Approved international internships may count towards international experience requirement for major.

## EUROP 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.

## EUROP 499. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

## (Also Acceptable for Advanced Degrees)

EUROP 501. European Life and Culture (3)
Prerequisite: European Studies 301.
Specialized study of topics such as European union, European women, or European art. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

## EUROP 527. The Holocaust in Feature Films <br> (3) II

(Same course as History 527.)
Two lectures and two hours of activity.
Prerequisite: Upper division or graduate standing.
Depiction of the Nazi policy of destroying European Jewry and its impact on the perpetrators, bystanders, victims, and the post-war world in feature films.
EUROP 560. Technologies and Methodologies: Language Learning and Teaching (3) I
Two lectures and two hours of activity.
Prerequisite: Advanced level foreign language competency.
Understanding foreign language competencies; create and use technology-assisted learning and testing materials; review and evaluate foreign theories and methodologies.

## EUROP 596. Topics in European Studies (3)

Prerequisites: European Studies 301 for majors and minors; upper division standing for all others.

Specialized topics in contemporary European culture. 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.


# Exercise and Nutritional Sciences 

OFFICE: Exercise and Nutritional Sciences 351 TELEPHONE: 619-594-5541

In the College of Professional Studies and Fine Arts


#### Abstract

Accredited by the Commission on Accreditation of Allied Health Education Programs for Athletic Training and Kinesiotherapy. Accredited by the California Commission on Teacher Credentialing for Physical Education.


## Faculty

Emeritus: Andrus, Barone, Benton, Broadbent, Carter, Cave, Cullen, Fox, Francis, P., Franz, Friedman, Grawunder, Gutowski, Kasch, King, Landis, McKenzie, T., Phillips, Quinn, Rushall, Schwob, Selder, Sleet, Smith, Sucec, Tollefsen, Wells, Wilhelm, Williamson, Ziegenfuss
Chair: Harris
Professors: Ainsworth, Aufsesser, Buono, Harris, Kolkhorst, LaMaster, Mechikoff, Moore, Nichols-Bernhard, Patterson, Simmons, Verity
Associate Professors: Kahan, Levy, Wiksten, Yaggie
Assistant Professors: Cipriani, Marshall
Lecturers: Barba, Fletcher, Thurman, Voigt

## Offered by the Department

Master of Arts degree in kinesiology.
Master of Science degree in exercise physiology.
Master of Science degree in nutritional science and Master of Science degree in exercise physiology (concurrent program).
Major in kinesiology with the B.S. degree in applied arts and sciences. Emphasis in athletic training.
Emphasis in fitness, nutrition, and health.
Emphasis in physical education.
Emphasis in prephysical therapy.

## The Major

Kinesiology is the study of the processes through which individuals obtain optimal health, physical skill, and fitness. The professional, 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 kinesiology 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.

The degree name was changed to kinesiology to better reflect the diversity of subject matter and breadth of career opportunities available to today's students. Some of the typical fields open to kinesiology majors include:

Athletic Training. The athletic training emphasis is a CAAHEP accredited undergraduate athletic training program. The program leads students to a career in athletic training and eligibility to sit for the National Athletic Trainers' Association Board of Certification (BOC) certification examination. Certified athletic trainers are responsible for the prevention, management, and rehabilitation of athletic injuries.

They work in such diverse areas as high schools, community colleges, universities, sports medicine clinics, corporate/industrial settings; and professional athletics. The athletic training program is comprised of two phases of study, a preprofessional phase and a professional phase. The professional program requires application to the program and includes a clinical education component. Admission to the professional program is competitive and applicants must meet the technical standards for admission as outlined in the application packet. Students will not be able to declare major status in athletic training until they have been accepted into the professional program. Applications are accepted each spring for fall selection. Students interested in the athletic training program are encouraged to meet with the athletic training program director as soon as possible for timely progression in the program.

Fitness, Nutrition, and Health. Persons pursuing this emphasis often find employment in the private and public sectors concerned with the fitness and health of employees. This emphasis 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. 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.

Physical Education. The graduate in kinesiology may find employment in public and private schools, specializing at either the elementary or secondary level. Kinesiology 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. Opportunities for both men and women exist at the interscholastic level as well as with community and commercial sports clubs.

Prephysical Therapy. Students in this emphasis may choose either (a) Rehabilitative Science or (b) Kinesiotherapy.

Rehabilitative Science. This specialization prepares students to meet the academic requirements necessary for entry to postgraduate education in physical therapy, chiropractic, occupational therapy, physician assistant, and podiatry. Students find employment in a broad range of medical environments. Students wishing to meet all requirements for postgraduate education for a professional degree should meet with the undergraduate adviser as well as contact potential postgraduate education sites to obtain specific entry requirements.

Kinesiotherapy. This specialization is designed to prepare students to meet the academic requirements for national registration in kinesiotherapy. The kinesiotherapist is academically and clinically prepared to provide rehabilitative exercise and education, in an appropriate setting, under the prescription of a licensed physician. Kinesiotherapists are accountable to the referring physician for their actions and those of their subordinates. The academic and clinical basis of kinesiotherapy is founded on the modalities of exercise and education. Kinesiotherapists are qualified to implement exercise programs designed to reverse or minimize debilitation and to enhance the functional capacity of medically stable patients in wellness, subacute or extended care settings.

## Impacted Programs

The kinesiology major with emphases in athletic training; fitness, nutrition, and health; physical education; and prephysical therapy are impacted programs

To be admitted to a kinesiology major emphasis, students must meet the following criteria:
a. Complete with a grade of C or higher: Exercise and Nutritional Sciences 210 and Biology 212. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 60 semester units applicable to the lower division General Education requirements to include all Preparation for the Major requirements for kinesiology major emphasis, and electives to reach 60 units. Exercise and Nutritional Sciences 210 and Biology 212 must be completed before taking upper division major courses. Preparation for the Major courses cannot be taken for credit/no credit (Cr/NC);
c. Have a cumulative GPA of 2.50 or higher;
d. For athletic training or kinesiotherapy majors, students must be accepted into the professional program.
To complete the major, students must fulfill the degree requirements for the major emphasis described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Kinesiology 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."

Preparation for the Major courses cannot be taken for Credit/No Credit (Cr/NC). Exercise and Nutritional Sciences 210 and Biology 212 must be completed with a grade of C or higher.

## Emphasis in Athletic Training

Preparation for the Major. Exercise and Nutritional Sciences 104A or 104B, 210, 265, 265L, 289; Biology 201A, 212; Chemistry 200; Nutrition 202; Physics 180A; Psychology 101, 260; Sociology 101; and one of the following: Biology 215, Economics 201, Psychology 270, Sociology 201, Statistics 119. (37 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. Acceptance into the athletic training professional program is required for major status in the athletic training emphasis. Application to the program is competitive and limited in number. Applications are due April 1 each year. Those students interested in the athletic training program should contact the athletic training program director. A minimum of 55 upper division units to include Exercise and Nutritional Sciences 301, 302, 303, 304, 304L, 305, 306, 307, 365, 367, 367L, 368, 368L, 388 (1 unit), 389A, 389B, 389C, 389D, 401A, 401B, 461, 462, 463, 463L, 465, 466; Biology 336. Biology 336 will also satisfy three units of the General Education requirement in IV.A. Recommended: Students should take Sociology 355 to satisfy the General Education requirement in IV.B.

## Emphasis in Fitness, Nutrition, and Health

Preparation for the Major. Exercise and Nutritional Sciences activities (2 units), Exercise and Nutritional Sciences 104A or 104B, 210, 265, 265L; Biology 100, 100L, 212; Chemistry 100; Nutrition 202; Psychology 101; Sociology 101; and three units selected from Biology 215, Economics 201, Psychology 270, Sociology 201, Statistics 119. (31 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 51 upper division units to include Exercise and Nutritional Sciences 301, 302, 303, 304, 304L, 305, 306, 307, 347A, 347B, 363, 388 (1 unit), 401A, 401B, 412, 431, 432, 432L, 433, 434; Biology 336; Nutrition 309, 311; Biology 336 will also satisfy three units of the General Education requirement (IV.A). Recommended: Students should take Sociology 355 to satisfy the General Education requirement (IV.B).

## Emphasis in Physical Education

This program must be elected by students who wish to be a candidate for a single subject teaching credential at San Diego State University.

All requirements as outlined in this section and the sections titled Policy Studies in Language and Cross-Cultural Education or Teacher Education in this catalog must be completed.

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. Exercise and Nutritional Sciences 210, 265, 265L; Biology 100; Biology 212; Psychology 101; Sociology 101; and one of the following: Biology 215, Economics 201, Psychology 270, Sociology 201, Statistics 119. (20 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(W)$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 51 upper division units to include Exercise and Nutritional Sciences 301, 302, 303, 304, 304L, 305, 306, 307, 335, 341, 347A, 347B, 348, 351, 401A, 401B, 441A, 441B, 442A, 442B, 445, 446A, 446B; Biology 336. Biology 336 will also satisfy three units of the General Education requirement (IV.A.). Recommended: Students should take Sociology 355 to satisfy the General Education requirement (IV.B.).

## Emphasis in Prephysical Therapy

Students interested in applying to postgraduate allied health programs are advised to follow (a) Rehabilitative Science, while those interested in kinesiotherapy should follow (b) Kinesiotherapy.

Preparation for the Major. Exercise and Nutritional Sciences 104A or 104B, 210, 265, 265L; Biology 201A, 212; Chemistry 200; Physics 180A, 182A; Psychology 101; Sociology 101; and one of the following: Biology 215, Economics 201, Psychology 270, Sociology 201, Statistics 119. (31 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(W)$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 40 upper division units to include Exercise and Nutritional Sciences 301, 302, 303, 304, 304L, 305, 306, 307, 363 , 365, 388 (1 unit), 401A, 401B, 460; Biology 336, 436, Psychology 350 Biology 336 will also satisfy three units of the General Education requirement (IV.A.). Recommended: Students should take Sociology 355 to satisfy the General Education requirement (IV.B.).

## (a) Rehabilitative Science

Additional Preparation for the Major. Biology 210; Chemistry 201; Physics 180B, 182B. (13 units)

Major. No additional major upper division units required.

## (b) Kinesiotherapy

Additional Preparation for the Major. Exercise and Nutritional Sciences 211, 288; Nutrition 202; Psychology 260. (8 units)

Additional Major Courses. Application to the kinesiotherapy professional program is required for major status in the kinesiotherapy specialization. Those interested in entering the kinesiotherapy specialization must apply to the kinesiotherapy professional program prior to achieving major status. Application to the program is competitive and limited in number. Applications are accepted every fall and spring semester. Those students interested in the kinesiotherapy professional program should contact the program director. Students in the kinesiotherapy professional program must complete these additional courses: Exercise and Nutritional Sciences 463, 463L, 477, 478, 487A, 487B, 487C, 487D, 487E, 487F.

## 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 (ENS)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## 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, Ethnic Dance, Ballet, Jazz Dance, Modern Dance. Refer to "Dance" in this section of the catalog.

## ENS 102. Conditioning (1) I, II

ENS 104A-104B. Weight Training (1-1) I, II
ENS 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.
ENS 108A-108B. Basketball (1-1) I, II
ENS 109A-109B. Soccer (1-1) I, II
ENS 110A-110B. Volleyball (1-1) I, II
ENS 111A-111B. Softball (1-1) I, II

ENS 116A-116B. Golf (1-1) I, II
ENS 118A-118B. Tennis (1-1) I, II
ENS 119A-119B. Bowling (1-1) I, II
ENS 120A-120B. Badminton (1-1) I, II
ENS 123A-123B. Racquetball (1-1) I, II
ENS 124. Sailing (1)
ENS 130. Step Training (1) I, II
ENS 137A. Aerobic Dance (1) I, II
ENS 138. Selected Activities (1) I, II
May be repeated with new activity for additional credit. See Class Schedule for specific content.

ENS 139A. Beginning Rock Climbing (1) I, II
Two hours of activity.
Rock climbing concepts and theories. Active participation using beginning techniques and training concepts.

ENS 139B. Intermediate Rock Climbing (1) I, II
Two hours of activity.
Prerequisite: Exercise and Nutritional Sciences 139A.
Rock climbing concepts and theories. Active participation using advanced techniques, training concepts, and lead climbing concepts expected.
ENS 141A-141B. Martial Arts (1-1) I, II
Exercise and Nutritional Sciences141A is prerequisite to 141B.
ENS 145. Wakeboarding and Waterskiing (1) I, II
ENS 146. Surfing (1) I, II
ENS 147. Windsurfing and Kiteboarding (1) I, II
Theory and mechanical skills of windsurfing and kiteboarding. Proper rigging, body position, and sailing theory, right-of-way rules and boating safety for good fundamental base to confidently continue both.
ENS 210. Introduction to Kinesiology (2) I, II
(Selected sections offered as distance education.)
Overview of discipline of kinesiology. Development of a basic philosophy and background for entering profession.
ENS 211. Introduction to Kinesiotherapy (1) I, II
Prerequisites: Exercise and Nutritional Sciences 210 and Biology 212.

Introduction to kinesiotherapy including history, educational requirements, standards of practice, scope of practice and basic skills needed to enter kinesiotherapy.
ENS 241A. Physical Education of Children-Theory (1) I, II
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 241B.

Physical education of elementary school-aged children: Theoretical and scientific bases. Not open to kinesiology majors.

ENS 241B. Physical Education of Children-Activities (1) I, II
Two hours of activity.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 241A.

Physical education of elementary school-aged children: Activities and instruction. Not open to kinesiology majors.

ENS 265. Techniques in Athletic Training (1) I, II
Prerequisite: Credit or concurrent registration in Biology 212.
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.

ENS 265L. Techniques in Athletic Training Laboratory (1) I, II
Three hours of laboratory.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 265.

ENS 288. Preprofessional Practicum in Kinesiotherapy (1) I, II
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 211.

Basic kinesiotherapy principles and techniques in a variety of clinical settings.

ENS 289. Pre-Professional Practicum in Athletic Training (1)
Prerequisite: Credit or concurrent registration in Exercise and Nutritional Sciences 265 and 265L.

Basic athletic training principles and techniques; athletic training event coverage under direct supervision of a certified athletic trainer.

## ENS 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)

ENS 301. Physical Growth and Development (3) I, II
Prerequisite: Exercise and Nutritional Sciences 210.
Principles of human growth; performance as affected by developmental levels and individual differences in structure and function.

## ENS 302. History and Philosophy: Physical Activity and Sport (3) I, II

Prerequisite: Exercise and Nutritional Sciences 210.
Integrated approach to understanding of historical, philosophical, and sociological forces shaping development of physical activity and sport.
ENS 303. Applied Kinesiology (3) I, II
Prerequisites: Grade of C or better in Biology 212 and Exercise and Nutritional Sciences 210 or Dance 181. Proof of completion of prerequisites required: Copy of transcript. Limited to kinesiology, exercise physiology, nutritional science and exercise physiology, foods and nutrition and dance majors. Major Codes: 08351, 08355, 08356, 10081, 13061.

Arthrology, syndesmology and myology, with emphasis on movement analysis. Muscle groups and their functional relationships. Application of simple mechanical principles to movement analysis.

## ENS 304. Physiology of Exercise (3) I, II

Prerequisites: Grade of C or better in Exercise and Nutritional Sciences 210 or Nutrition 101, and Biology 336. Proof of completion of prerequisites required: Copy of transcript. Limited to kinesiology, exercise physiology, nutritional sciences and exercise physiology, and foods and nutrition majors. Major Codes: 08351, 08355, 08356, 13061.

Effects of physical activities on physiological functions of the body.
ENS 304L. Exercise Physiology Laboratory (1) I, II
Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Exercise and Nutritional Sciences 304.

Laboratory experiences in the application of exercises and the analysis of the results. (Formerly numbered Exercise and Nutritional Sciences 314.)
ENS 305. Measurement and Evaluation in Kinesiology (3) I, II Prerequisites: Exercise and Nutritional Sciences 210 and one of the following: Biology 215, Economics 201, Psychology 270, Sociology 201, or Statistics 119. Limited to kinesiology majors. Major Code: 08351.

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.

ENS 306. Biomechanics of Human Movement (3) I, II
(Selected sections offered as distance education.)
Prerequisite: Exercise and Nutritional Sciences 303. Limited to kinesiology majors (Major Code: 08351) and biology (emphasis in bioengineering) majors (Major Code: 04011).

Mechanical principles as applied to movement; analysis and application to selected motor skills.

ENS 307. Motor Learning and Performance (3) I, II
Prerequisites: Exercise and Nutritional Sciences 210, Psychology 101, and one of the following: Biology 215, Economics 201, Psychology 270, Sociology 201, or Statistics 119. Limited to kinesiology majors (Major Code: 08351).

Psychological parameters related to physical performance and the acquisition of motor skills.

ENS 320. Skin and Scuba Diving (2)
Prerequisites: Medical examination, waiver for hazardous procedures, pass swimming competency test. Concurrent registration in Exercise and Nutritional Sciences 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. Not open to students with credit in Exercise and Nutritional Sciences 323, 324, Biology 461, Oceanography 305, 306.

ENS 320L. Skin and Scuba Diving Laboratory (1)
Three hours of laboratory.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 320 .

## ENS 323. Advanced Scuba Diving (2)

Prerequisites: Exercise and Nutritional Sciences 320 or Openwater Scuba Certification, medical examination, and acceptable openwater diving equipment. Concurrent registration in Exercise and Nutritional Sciences 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. Not open to students with credit in Exercise and Nutritional Sciences 324, Biology 461, Oceanography 306.

ENS 323L. Advanced Scuba Diving Laboratory (1)
Three hours of laboratory.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 323.

## ENS 324. Assistant Scuba Instructor (2)

Prerequisites: Exercise and Nutritional Sciences 323 or Oceanography 306, Master Diver Certification, medical examination, and acceptable openwater diving equipment. Concurrent registration in Exercise and Nutritional Sciences 324L.

Qualifies for Assistant Scuba Instructor Certificate from the National Association of Underwater Instructors.

## ENS 324L. Assistant Scuba Instructor Laboratory <br> (1)

Three hours of laboratory.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 324.

## ENS 330. Exercise and Wellness Across the Lifespan (3) [GE] I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Role of physical activity and exercise behavior in health and wellness. Personal applications plus gender and cultural implications of physical activity from childhood through adulthood.

ENS 335. Basic Movement Skills (2) I, II
Prerequisite: Credit or concurrent registration in Exercise and Nutritional Sciences 303. Limited to kinesiology and liberal studies majors. Major Codes: 08351 and 49015.

Terminology, performance, and analysis of elementary-level movement skill themes and concepts, educational gymnastics, rhythms, and dance.
ENS 341. Skill Competency in Physical Education (2) $\mathrm{Cr} / \mathrm{NC}$ I, II
Four hours of activity.
Prerequisite: Credit or concurrent registration in Exercise and Nutritional Sciences 303.

Demonstrated skill and knowledge competencies in badminton, basketball, outdoor experience, physical fitness, self-defense, soccer, softball, swimming, tennis, volleyball, and one of the following: archery, dance, golf, gymnastics, football, racquetball and wrestling.

## ENS 347A. Leadership for Kinesiology (2) I, II

Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 347B. Limited to kinesiology and liberal studies majors. Major Codes: 08351 and 49015.

Theory and development of leadership behavior of physical educators, emphasizing leadership qualities unique to diverse physical activity settings.

## ENS 347B. Leadership for Kinesiology Activity (1) I, II

Two hours of activity.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 347A.

## ENS 348. Special Physical Education (3) I, II

Prerequisite: Kinesiology or liberal studies upper division major status required.

Etiologies, characteristics, education programs, and activities for individuals with non-physical disabilities (e.g. mentally retarded, learning disabled, etc.).

## ENS 350. Sport in Antiquity (3) I, II

Prerequisite: Upper division standing.
Athletics in ancient Greece and Rome. Role and scope of sporting competitions in ancient Greek and Roman cultures, and their influence on modern athletics.

## ENS 351. Basic Coaching Theory (2) I

(Selected sections offered as distance education.)
Prerequisites: Exercise and Nutritional Sciences 210, 265 and 265L.
Basic principles of coaching and conditioning for various sports. Defining actual physical and mental demands of a competitive activity. Coaching decisions concerning design of physical training programs for high school and club programs.

## ENS 363. Corrective Physical Education (3) I, II

Prerequisites: Exercise and Nutritional Sciences 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.

ENS 365. Scientific Management of Sports Injuries (3) I, II
Prerequisites: Biology 201A; Exercise and Nutritional Sciences 265, 265L, 303, credit or concurrent registration in Exercise and Nutritional Sciences 306.

Pathomechanics and pathophysiology of soft tissue and bone injury as it relates to the identification and management of sport related injuries.
ENS 367. Clinical Evaluation of Sports Injuries Part I (2) I
Prerequisites: Credit or concurrent registration in Exercise and Nutritional Sciences 303 and 389A.

Theory of clinical evaluation of sports injuries techniques and scientific basis of techniques. Principles of systematic differential evaluation of upper extremity, cervical spine. (Not open to students with credit in Exercise and Nutritional Sciences 366.)

ENS 367L. Clinical Evaluation of Sports Injuries Part I (1) I
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 367.

Practical experience in clinical evaluation of sports injuries techniques and scientific basis of techniques. Principles of systematic differential evaluation of upper extremity, cervical spine. (Not open to students with credit in Exercise and Nutritional Sciences 366L.)

ENS 368. Clinical Evaluation of Sports Injury Part II (2) II
Prerequisites: Exercise and Nutritional Sciences 367 and 367L.
Theory of clinical evaluation of sports injury techniques and scientific basis of techniques. Systematic differential evaluation process applied to lower extremities, thoracic, and lumbar spine and chest and abdominal injuries. (Not open to students with credit in Exercise and Nutritional Sciences 366.)
ENS 368L. Clinical Evaluation of Sports Injury Part II (1) II
Prerequisites: Exercise and Nutritional Sciences 367 and 367L. Concurrent registration in Exercise and Nutritional Sciences 368.

Practical experience in clinical evaluation of sports injuries techniques and scientific basis of techniques. Principles of systematic differential evaluation process applied to lower extremities, thoracic and lumbar spine and chest and abdominal injuries. (Not open to students with credit in Exercise and Nutritional Sciences 366L.)
ENS 388. Adapted Physical Education Laboratory (1-4) I, II
Three hours of laboratory per unit.
Prerequisite: Credit or concurrent registration in Exercise and Nutritional Sciences 348 or 363 or 367 and 367L; consent of instructor.

Supervised clinical experience working in the adapted physical education laboratory setting on campus with individuals with disabilities. Maximum credit four units.

## ENS 389A-389B-389C-389D-389E-389F. Practicum in Athletic Training (1-1-1-1-1-1)I (389A, 389C, 389E), II (389B, 389D, 389F)

389A, 389B, 389C, 389D: Two hours of activity.
389E, 389F: Three hours of laboratory.
Prerequisites: 389A: Grade of B or better in Biology 212, Exercise and Nutritional Sciences 265, 265L, 289, application, letters of recommendation, and interview.

389B: Grade of B or better in Exercise and Nutritional Sciences 389A.

389C: Grade of B or better in Exercise and Nutritional Sciences 389B.

389D: Grade of B or better in Exercise and Nutritional Sciences 389C.

389E: Grade of B or better in Exercise and Nutritional Sciences 389D.

389F: Grade of B or better in Exercise and Nutritional Sciences 389E.

Practical training and clinical applications of basic and advanced techniques of athletic training. Emergency, preventative procedures treatment, and rehabilitation techniques to be performed in actual athletic training settings. Practicum experience offered in conjunction with clinical internship.

## ENS 397. Contemporary Topics in Kinesiology

(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.

ENS 398. Supervised Field Experience (1-3) Cr/NC I, II
Prerequisite: Consent of department chair. Limited to kinesiology and liberal studies majors. Major Codes: 08351 and 49015.

Supervised practical experience in the area of kinesiology. Maximum credit six units.

## ENS 401A. Musculo-Skeletal Fitness (1) I, II

Prerequisites: Exercise and Nutritional Sciences 104A or 104B or 341; Exercise and Nutritional Sciences 304, 304L, 306. Concurrent registration in Exercise and Nutritional Sciences 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.

ENS 401B. Musculo-Skeletal Fitness Activity (1) I, II
Two hours of activity.
Prerequisites: Concurrent registration in Exercise and Nutritional Sciences 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.

## ENS 412. Leading Group Aerobic Exercise (1) I, II

Two hours of activity
Prerequisites: Exercise and Nutritional Sciences 303, 304, 304L.
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.

## ENS 431. Administration of Exercise and Fitness

 Program (2) I, IIPrerequisites: Exercise and Nutritional Sciences 303, 304, 304L
Administration and management of corporate, private, universitybased, and hospital-based exercise programs.

ENS 432. Exercise, Fitness, and Health (2) I, II
Prerequisites: Exercise and Nutritional Sciences 303, 304, 304L, 305. Concurrent registration in Exercise and Nutritional Sciences 432L.

Exercise testing, programming and leadership for healthy persons of different ages, capacities, and needs.
ENS 432L. Exercise, Fitness, and Health (1) I, II
Three hours of laboratory.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 432.

Practicum in exercise testing, programming and leadership for healthy persons of different capacities, and needs.

## ENS 433. Exercise, Sport, and Aging (3) I, II

Prerequisites: Exercise and Nutritional Sciences 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.
ENS 434. Promoting Physical Activity and Health Behavior (3)
Prerequisites: Exercise and Nutritional Sciences 347A and 347B.
Theoretical approaches and personal, client, and population strategies for developing and maintaining health-related physical activity and associated behaviors.
ENS 441. Practicum: Physical Education Activities (2) I, II Four hours of activity.
Prerequisites: Exercise and Nutritional Sciences 306, 347A, 347B.
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. Sport Applications I
B. Sport Applications II

ENS 442A. Physical Education for Elementary Schools (2) I, II
Prerequisites: Exercise and Nutritional Sciences 335, 347A and 347B.

Objectives, curricula, activities, and application of basic scientific principles for the conduct of physical education in elementary schools.

## ENS 442B. Physical Education for Elementary Schools

 Activity (1) I, IITwo hours of activity.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 442A.

ENS 445. Current Issues in Physical Education (2) I, II
Prerequisite: Exercise and Nutritional Sciences 441A.
Current issues relevant to physical education. Includes assessment, liability, curriculum standards, appropriate physical activity levels, and safety.
ENS 446A. Physical Education with Adolescents (2)
Prerequisites: Exercise and Nutritional Sciences 441A, 441B, 442A, 442B.

Basic requirements, principles, and concepts for conducting physical education with adolescents.
ENS 446B. Physical Education with Adolescents (1)
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 446A.

Application of basic requirements, principles, and concepts for conducting physical education with adolescents.
ENS 460. Professional Issues (1) $\mathbf{C r} / \mathrm{NC}$ I, II
Prerequisite: Senior standing in prephysical therapy specialization.

Current issues relevant for one preparing to enter an allied health profession.

ENS 461. Sport and Exercise Psychology (3)
Prerequisite: Exercise and Nutritional Sciences 307.
Psychological factors underlying behavior in sport and physical activity. Emphasis on personality and motivational factors.
ENS 462. Therapeutic Modalities for Sports Injuries (3) I
Prerequisites: Grade of B or better in Exercise and Nutritional Sciences 365 and 389A.

Theories and techniques for the design, implementation, evaluation, and application of rehabilitation modalities.

## ENS 463. Principles and Techniques in Therapeutic

 Exercise (2) I, IIPrerequisites: Grade of B or better in Exercise and Nutritional Sciences 365. For athletic training students, a grade of $B$ or better in Exercise and Nutritional Sciences 389A. For kinesiotherapy students, credit or concurrent registration in Exercise and Nutritional Sciences 487A.

Design and application of therapeutic exercise programs for athletic injuries.

## ENS 463L. Principles and Techniques in Therapeutic Exercise Laboratory (1) I, II

Three hours of laboratory.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 463.

ENS 465. Seminar in Athletic Training (2)
Prerequisites: Grade of B or better in Exercise and Nutritional Sciences 365 and 389C

Professional issues in athletic training discipline, including topics in organization and administration.
ENS 466. Clinical Pathology for Athletic Trainers (3) II
Prerequisites: Grade of B or better in Exercise and Nutritional Sciences 365 and 389C.

Clinical pathology associated with body systems, clinical recognition, management, and referral of non-orthopedic pathologies associated with physically active persons.

ENS 477. Therapeutic Practices of Kinesiotherapy
Prerequisite: Credit or concurrent registration in Exercise and Nutritional Sciences 487A

Foundations of physical disability and description of pathological processes often treated in kinesiotherapy.

ENS 478. Organization and Administration of Kinesiotherapy (2)
Prerequisite: Credit or concurrent registration in Exercise and Nutritional Sciences 487A.

Principles and practices of administration in kinesiotherapy.
ENS 487A. Kinesiotherapy Internship — Neurological (1) I, II
Prerequisites: Acceptance in the kinesiotherapy professional program and completion of competency checklist.

Clinical experience in medically supervised exercise programs for individuals with neuromuscular disorders.

## ENS 487B. Kinesiotherapy Internship — Geriatric/Extended Care (1)

Prerequisites: Acceptance in the kinesiotherapy professional program and completion of competency checklist.

Clinical experience in extended care facilities, for geriatric population of severely physically disabled populations.

## ENS 487C. Kinesiotherapy Internship - Fitness and Wellness (1)

Prerequisites: Acceptance in the kinesiotherapy professional program and completion of competency checklist.

Clinical experience in physical fitness facilities.
ENS 487D. Kinesiotherapy Internship — Psychiatric (1)
Prerequisites: Psychology 350; acceptance in the kinesiotherapy professional program and completion of competency checklist.

Clinical experience in psychiatric care facilities.

## ENS 487E. Kinesiotherapy Internship - Cardiac

 Rehabilitation (1)Prerequisites: Acceptance in the kinesiotherapy professional program and completion of competency checklist.

Clinical experience in medically supervised exercise programs for the rehabilitation of cardiopulminary diseases.

ENS 487F. Kinesiotherapy Internship - Orthopedic (1)
Prerequisites: Exercise and Nutritional Sciences 487A and credit or concurrent registration in Exercise and Nutritional Sciences 477, 478.

Clinical experience in medically supervised exercise programs for individuals with orthopedic disorders.

## ENS 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.

## ENS 499. Special Study (1-3) I, II

Prerequisite: Consent of department chair. Limited to kinesiology majors. Major Code: 08351.

Individual study. Maximum credit six units.

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

## ENS 596. Selected Topics in Exercise and Nutritional Sciences (1-3) I, II

Selected topics in exercise and nutritional sciences. 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.


In the Department of Linguistics and Oriental Languages In the College of Arts and Letters

OFFICE: Business Administration 327
TELEPHONE: 619-594-5268
FAX: 619-594-4877
http://www-rohan.sdsu.edu/dept/linguist/index.html

## Faculty

Chair: Kaplan

## Offered by the Department of Linguistics and

 Oriental LanguagesCourses in Filipino.
Major or minor work in Filipino is not offered.

## Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Filipino to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Filipino 201 or the equivalent level of achievement. The usual sequence of coursework is Filipino 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 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 language requirement.

## Courses (FLIP)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

No credit will be given for Filipino 101, 102, 201 taken out of sequence.

## LOWER DIVISION COURSES

Native speakers of Filipino will not receive credit for taking lower division courses in Filipino except with advance approval from the department.

## FILIP 101. Elementary Filipino I (4) [GE]

Introduction to Filipino (Tagalog), with emphasis on everyday conversation. Focus on essentials of grammar and sufficient vocabulary for speaking and reading Filipino. Not open to students who have completed three years of high school Filipino unless the third course was completed five or more years ago.

FILIP 102. Elementary Filipino II (4) [GE]
Prerequisite: Filipino 101.
Continuation of Filipino 101 with focus on grammar and oral proficiency. Emphasis on grammatical accuracy by responding orally to spoken and written inquiries. Not open to students who have completed four years of high school Filipino unless the fourth course was completed five or more years ago. Not open to students with credit in Filipino 201.

## FILIP 201. Intermediate Filipino <br> (4) [GE]

Prerequisite: Filipino 102.
Extensive review of all structures learned in Filipino 101 and 102. Integrated approach to learning Filipino by offering opportunities to acquire communicative skills while developing awareness and appreciation of the Filipino culture.

# Finance 

## OFFICE: Student Services 3356

TELEPHONE: 619-594-5323
FAX: 619-594-3272

## A member of AACSB International-The Association to Advance

 Collegiate Schools of Business.The Personal Financial Planning Certificate is registered with the Certified Financial Planner Board of Standards, Inc.

## Faculty

Emeritus: Block, Bost, Cherin, Fisher, Gitman, Hippaka, Houston, Hungate, Hutchins, Nye, Omberg, Reints, Sachdeva, Schmier, Short, Vandenberg, Warschauer, Wilbur
Chair: Varaiya
Professors: Badrinath, Do, Ely, Haddad, Salehizadeh, Song, Sterk, Varaiya
Assistant Professors: Kim, Lachance, Pukthuanthong, Xie, Yoo, Zebedee

## 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.
Minor in finance.
Minor in real estate.
Certificate in personal financial planning.

## The Majors

The Department of Finance offers three majors: Finance, Financial Services, and Real Estate.

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.

# In the College of Business Administration 

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 deci-sion-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 vision of the real estate program at SDSU is to create a ready-day-one educational program for students who aspire to become future leaders and professionals within the multifaceted real estate industry. 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 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 majors for these diverse opportunities.

## Business Honors Program

The Business Honors Program offers excellent upper division business students the opportunity to explore issues in our local, regional, and global business environments focusing on the social and ethical responsibility that business has to the community and society. Honors students will enroll in a one unit business honors seminar each semester. During their enrollment they will participate in activities to promote their academic and personal growth, documenting their work in a written portfolio.

Generally, students should apply to this program at the time of application to upper division business. Applicants must submit an essay with their application. Applicants must have a 3.6 cumulative GPA or good standing in the University Honors Program. Students not meeting these requirements may petition for admission to the program. Successful completion of the Business Honors Program will be recognized at graduation. Contact Dr. Carol Venable, School of Accountancy, for more information about this program.

## Statement on Computers

Before enrolling in upper division courses in the College of Business Administration, students must be competent in the operation of personal computers, including word processing and spreadsheets. Business students are strongly encouraged to have their own computers capable of running word processing, spreadsheet, presentation, e-mail, and Internet applications such as those found in packages sold by major software publishers. Availability of on-campus computing resources can be limited due to increasing demand across the University.

## Retention Policy

The College of Business Administration expects that upper division students will make reasonable academic progress towards the degree. Students earning less than a 2.0 average in their classes for two or more semesters may be removed from the upper division major and required to declare a non-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 AACSB International-The Association to Advance Collegiate Schools of Business accredited program. Exceptions require thorough documentation evidencing the above standards.

## Impacted Program

The majors in the Department of Finance are impacted. Before enrolling in any upper division courses in business administration, students must advance to an upper division business major and obtain a business major code. To be admitted to an upper division business major (accounting, finance, financial services, real estate, information systems, management, or marketing), students must meet the following criteria:
a. Complete with a grade of C or higher: Accountancy 201 and 202; Finance 240; Information and Decision Systems 180 and 290 (290 is not required for the accounting major); Economics 101 and 102; Mathematics 120 (or other approved calculus course); and either Statistics 119 or Economics 201. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 60 transferable semester units;
c. Have a cumulative GPA of 2.9;

Students who meet all requirements except the GPA may request to be placed on the waiting list. Students on the waiting list will be admitted on space-availability basis only. Contact the Business Advising Center (BA-448), 619-594-5828, for more information.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Finance Major

## With the B.S. Degree in Business Administration (Major Code: 05041)

A minor is not required with this major.
Preparation for the Major. Finance 240; Accountancy 201, 202; Economics 101, 102; Information and Decision Systems 180, 290; Mathematics 120 (or other approved calculus course); and Economics 201 or Statistics 119. (27-29 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$; the minimum grade in each class is C. Additional progress requirements must be met before a student is admitted to an upper division major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. Forty-five upper division units consisting of Finance 321, 323, 325, 327, 329, 423; Accountancy 325, 326; Business Administration 300; Information and Decision Systems 302; Management 350; Business Administration 404 or Management 405; Marketing 370; and six units selected from Finance 326, 328, 421, 425, 427. A "C" (2.0) average is required in the courses stipulated here for the major.

A minimum of 60 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration, economics, and statistics.

## Financial Services Major

## With the B.S. Degree in Business Administration (Major Code: 05043)

A minor is not required with this major.
Preparation for the Major. Finance 240; Accountancy 201, 202; Economics 101, 102; Information and Decision Systems 180, 290; Mathematics 120 (or other approved calculus course); and Economics 201 or Statistics 119. (27-29 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$; the minimum grade in each class is C. Additional progress requirements must be met before a student is admitted to an upper division major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(W)$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. Forty to 41 upper division units consisting of Finance 323, 326, 327, 331, 522, 589; Accountancy 503; Business Administration 300; Information and Decision Systems 302; Management 350; Business Administration 404 or Management 405; Marketing 370; six to seven units selected from Finance 421, 425, 427, 431, 435*, 445, 523; Accountancy 326; Economics 320 or 422, 490; and Marketing 377. A "C" (2.0) average is required in the courses stipulated here for the major.

[^21]A minimum of 60 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration, economics, and statistics. This means that at least two units of electives (upper or lower division) must be completed in areas other than business administration, economics, and statistics.

## Real Estate Major

With the B.S. Degree in Business Administration (Major Code: 05111)

A minor is not required with this major.
Preparation for the Major. Finance 240; Accountancy 201, 202; Economics 101, 102; Information and Decision Systems 180, 290; Mathematics 120 (or other approved calculus course); and Economics 201 or Statistics 119. (27-29 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$; the minimum grade in each class is C. Additional progress requirements must be met before a student is admitted to an upper division major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. Forty to 41 upper division units consisting of Finance 323, 331, 335, 431 or 433, 435; Business Administration 300; Information and Decision Systems 302; Management 350; Business Administration 404 or Management 405; Marketing 370; Public Administration 320; and 9 to 10 additional units selected from Accountancy 503; Finance 333, 431 or 433; Marketing 373; Economics 422, 490; Geography 354,559 . A "C" (2.0) average is required in the courses stipulated here for the major.

A minimum of 60 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration, economics, and statistics.

## Finance Minor

The minor in finance consists of a minimum of 21 units to include Accountancy 201; Finance 321, 323, 326, 327, and 329; Statistics 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 in residence at San Diego State University. Students with a major in the College of Business Administration, Hospitality and Tourism Management, or International Business may not complete a minor in the College of Business Administration.

Students must officially declare the minor before taking any upper division business courses. Students must meet the prerequisites for the minor in effect at the time that they declare the minor. The current prerequisites for admission to the finance minor include completion of the following courses with a grade of C or better: Economics 101, 102, and a three unit course in statistics (Statistics 119 is recommended); completion of the General Education requirements in Communication and Critical Thinking; completion of an additional nine units in the department of the student's major, including at least six units of upper division courses. Students must also meet the GPA requirement in effect at the time that they declare the minor. Contact the Business Advising Center (BA-448) for admissions criteria and procedures.

## Real Estate Minor

The minor in real estate consists of a minimum of 18 units to include Economics 102; Finance 240, 331, 335; and six units selected from Finance 333, 431, 433, 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 in residence at San Diego State University. Students with a major in the College of Business Administration, Hospitality and Tourism Management, or International Business may not complete a minor in the College of Business Administration.

Students must officially declare the minor before taking any upper division business courses. Students must meet the prerequisites for the minor in effect at the time that they declare the minor. The current prerequisites for admission to the real estate minor include completion of the following courses with a grade of C or better: Economics 101, 102, and a three unit course in statistics (Statistics 119 is recommended); completion of the General Education requirements in Communication and Critical Thinking; completion of an additional nine units in the department of the student's major, including at least six units of upper division courses. Students must also meet the GPA requirement in effect at the time that they declare the minor. Contact the Business Advising Center (BA-448) for admissions criteria and procedures.

## 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, who may take the courses on a space-available basis.

This certificate is a program registered with the Certified Financial Planner Board of Standards, Inc.

Prerequisites to the program include Finance 240; Accountancy 201; Economics 101, 102; and Statistics 119. (15 units.)

The certificate requires 23 units to include Accountancy 503, Finance $323,327,421,445,522,523$, and 589. In order to qualify for this certificate a "B-" (2.7) average in the upper division certificate courses is required.

The adviser for the certificate is Dr. Thomas M.D. Warschauer, Department of Finance. All course units may be used for business majors where applicable. Courses in the certificate may not be counted toward the minor.

## Courses (FIN)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSE

## FIN 240. 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 <br> (Intended for Undergraduates)

## FIN 300. Personal Finance (3)

## Prerequisite: Upper division standing.

Understanding and awareness of financial decisions students will make during their lives, and services and products available to them in implementing these decisions. This course is open to non-business majors.

## FIN 321. Managerial Economics (3) I, II

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration.

Role of economic analysis in management decisions. Study of demand, cost, supply theories from a business viewpoint. Emphasis on managerial decision making.

## FIN 323. Fundamentals of Finance <br> (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.

## FIN 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.
FIN 326. Financial Institutions Management (3) I, II
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.
FIN 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.

## FIN 328. Entrepreneurial Finance (3) I, II

Prerequisite: Finance 323.
Financial management tools and techniques over the stages of life cycle of a venture: development, start up, rapid growth and maturity. Linkages between market opportunity, competitive position, composition, and sources of financing of the ventures.

## FIN 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.

## FIN 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.
FIN 333. Law of Real Property (3) II
Prerequisite: Finance 331.
Legal theory and practice of estates in land; landlord and tenant relationships; land transactions; mortgages and trust deeds; easements; land use; ownership rights in land; environmental law.

## FIN 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.

## FIN 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.

## FIN 423. Financial Analysis and Management (4) I, II

Prerequisites: Finance 321 and 325. Strongly recommended: Accountancy 326.

Integration of various aspects of finance, application of financial theory. Financial decision making in the firm. Case study.

## FIN 425. Business Forecasting <br> (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.

## FIN 427. Derivatives and Financial Risk Management

Prerequisite: Finance 323.
Introduce derivative instruments such as futures, options and swaps, nature of their markets and pricing methods. Applications of those instruments for hedging risks in equities, commodities, and exchange rates.

## FIN 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.

## FIN 433. Theory of Real Property Value (3) II

Prerequisite: Finance 331.
Introduction to theories of real property value. Techniques of value determination. Data analysis techniques.

## FIN 435. Real Estate Investment Analysis (3) I, II

Prerequisites: Finance 335 and Finance 431 or 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.

## FIN 445. Estate Planning (3)

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.

## FIN 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.

## FIN 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.

## FIN 499. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

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

## FIN 522. Individual Insurance Management <br> (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, and liability insurance. Risk exposure and policy analysis.

## FIN 523. Employee Benefit Planning (2)

Prerequisites: Undergraduate: Completion of lower division requirements for the major. Graduate: Completion of prerequisite core.

Employee benefit and pension planning, including regulation and taxation issues.

## FIN 589. Personal Financial Planning (3) I

Prerequisite: Finance 323.
Financial planning process including data gathering, cash flow and debt considerations, goal programming (including retirement and education funding), integration, plan formulation, and implementation. Practice management considerations including establishment of ethical and legal, client and professional relationships.

## GRADUATE COURSES Refer to the Graduate Bulletin.



## French

## In the Department of European Studies In the College of Arts and Letters

## Faculty

Emeritus: Cox, Ghilbert, Jackson, Max, Nelson, Palmer Chair: Benkov
Professors: Benkov, Edson, Loughrin-Sacco, Lyman-Hager, Schorr Associate Professors: Cornwell, Donadey
Lecturers: Ransom, Wilson

## Offered by the Department of European Studies

Master of Arts degree in French.
Major in French with the B.A. degree in liberal arts and sciences.
Major in European studies, with emphasis in French.
See European Studies.
Major in international business, with emphasis in French.
See International Business
Minor in French.

## The Major

A student who majors in French learns to speak the language, to read French literature in its original form, and to interact with members of an important cultural community. The French major can help prepare a student for a career in education, business, or the arts.

Students generally choose to major in French in order to enrich their lives rather than to train for a career, but many employers recognize the value of a well-rounded liberal arts education. The increasing involvement of the United States in international business has created new opportunities for people interested in international management. Employers look for knowledge of a foreign country's culture and language together with training in economics or business. A major in French combines effectively with a second major or minor in business, economics, political science, the humanities, or another language area study.

A significant number of French majors choose a career in teaching. Recent studies indicate that the demand for qualified teachers is rising. With a secondary teaching credential, one can teach at the high school level or pursue more advanced study in preparation for a university career, either in French or in related subjects such as linguistics or comparative literature.

Students majoring in French are strongly encouraged to participate in CSU-IP (California State University International Programs) and other approved study abroad programs in French-speaking countries, such as the SDSU semester in Paris.

## 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

# OFFICE: Business Administration 304 <br> TELEPHONE: 619-594-5111 <br> FAX: 619-594-8006 <br> http://www-rohan.sdsu.edu/dept/frenital/french.html 

## 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 49 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, 201, 210, 220, and 221. (22 units) Recommended: History 105, 106.

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

International Experience Requirement. All French majors are required to complete an approved study abroad program in a Frenchspeaking country consisting of a minimum of six units ( 90 hours). However, French majors are strongly encouraged to complete a more extensive abroad experience by participating in a semester or an academic year program. To fulfill the International Experience Requirement, French majors must enroll in a study abroad program approved by the department. Unapproved study abroad programs will not meet the international experience requirement for the major.

Major. A minimum of 27 upper division units in French to include French 301, 302, 305A, 305B, and 15 upper division electives in French to include at least one $500-$ level course. No more than one 400 -level French course taught in English may be applied to the major.

## French Minor

The minor in French consists of a minimum of 15 units taught in French, nine units of which must be in upper division French courses. Any course taught in English needs department approval to apply to the minor requirements.

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 in residence at San Diego State University.

## Interdisciplinary Studies in Three Departments

Students selecting French as one of their departments in this major must complete all lower division preparation for the major or equivalent competency, and choose from among French 301, 305A, 305B, 421 and 422.

## Language Requirement for the

## B.A. Degree in Liberal Arts and Sciences

Students electing the study of French to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete French 201 or 210 or the equivalent level of competency. The usual sequence of coursework is

French 100A, 100B, 201, 210, 220, and 221. 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 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 or five college quarters, thus fulfilling the language requirement.

## Courses (FRENC)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## 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 for lower division courses taken after successfully completing any upper division French course taught in French.

No credit will be given when French 100A, 100B, or the 200 series are taken out of sequence.

## FRENC 100A. Elementary French I (5) [GE] I, II

Interactive introduction to speaking, reading, and writing French in a cultural context. Essential language structures for communication at the novice level. Not open to students who have completed three years of high school French unless the third course was completed five or more years ago.

## FRENC 100B. Elementary French II (5) [GE] 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.

## FRENC 200. Intermediate French in Paris (3) II

Four hours per week in a 12 week period in the Paris Semester.
Development of intermediate level proficiency skills through lecture and work in small groups. Offered only through the Paris Semester study abroad program. This course satisfies the language graduation requirement.

## FRENC 201. Readings in French (3) [GE] I, II

Prerequisite: French 100B or three years of high school French.
French majors, minors, and International Business majors are encouraged to enroll concurrently in French 210. Emphasis on reading. See Class Schedule for emphasis offered: Readings in French Culture, Readings in Francophone Culture, or Readings in Business French.

## FRENC 210. French Grammar (3) [GE] I, II

Prerequisite: French 100B with a grade of $C$ or better or three years of high school French.

French majors, minors, and International Business majors are encouraged to enroll concurrently in French 201.

Comprehensive survey of French grammar at the intermediate level. Analysis and use of typical French structures.
FRENC 220. Grammar of Spoken French (3) [GE] I, II
Prerequisite: French 210.
French majors, minors, and International Business majors are encouraged to enroll concurrently in French 221.

Analysis of grammar and use of modern French through study of cultural materials, for proficiency in oral communication.

## FRENC 221. Writing French (3) [GE] I, II

Prerequisite: French 210.
French majors, minors, and International Business majors are encouraged to enroll concurrently in French 220.

Emphasis on written composition: study of a variety of prose models and practice in writing.

## FRENC 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 is not open to students who hold a French baccalauréat. French 301 and 302 may not be taken concurrently or out of sequence.
FRENC 301. Advanced Grammar and Composition (3) [GE] I, II
Prerequisites: Minimum 12 units of $200-$ level French, to include French 221, 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 focused on a theme in French culture.

## FRENC 302. Translation and Stylistics (3) [GE] 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.

FRENC 304. Phonetics and Oral Proficiency (3) I
Two lectures and two hours of activity.
Prerequisite: Upper division standing in French.
Phonetic theory, listening, intonation and transcription practice, corrective phonetic and intonation exercises. Study of varieties of Francophone oral expression.
FRENC 305A. Survey of French Literature (3) [GE] 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 Revolution.

## FRENC 305B. Survey of French Literature (3) [GE] 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.

Important movements, authors, and works in French literature from the Revolution to present.

## FRENC 400. Advanced French in Paris (3) II

Prerequisites: Twelve units of 200-level French.
Development of advanced level proficiency skills through writing and speaking. Offered only through the Paris Semester study abroad program.

## FRENC 421. French Civilization (3) [GE] 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 the present. Artistic, intellectual achievements and cultural movements.

FRENC 422. Contemporary France (3) [GE] 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.

## FRENC 423. Commercial French (3) II

Prerequisite: French 301. Proof of completion of prerequisite required: Copy of transcript.

French commercial practices and language, the enterprise, correspondence, advertising, telecommunications, banking, transportation, import-export, insurance, accounting, stock market, preparation for the Certificat offered by the Paris Chamber of Commerce.

## FRENC 424. French Cinema and Theory (3) [GE]

Two lectures and two hours of activity.
Prerequisites: Twelve units of lower division French. General Education students must also have completed Foundations II.C. Humanities.

French cinema emphasizing social, political, and cultural changes in modern France. Topics include film theory, the new wave, history in cinema, influence of feminism, French colonialism, race, class, and gender in modern culture. Taught in English.

## FRENC 465. Africa in Literature and Film (3) [GE]

(Same course as Africana Studies 465.)
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities for nonmajors.

African cultural history through literature and film. Consistency/ variety of African cultural expressions and conventions in literature and film. Taught in English. (Formerly numbered French 425.)

## FRENC 495. French Internship (3) Cr/NC

Prerequisites: Upper division standing in major and consent of instructor.

Practical work experience in a field related to French and Francophone studies. Work done under joint direction of activity sponsor and instructor. Approved international internships may count towards international requirement for major.

## FRENC 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.

## FRENC 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 <br> (Also Acceptable for Advanced Degrees)

FRENC 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.

## FRENC 520. French and Francophone Literary Studies

Prerequisites: French 302 and 305A or 305B.
Specialized study of a century, genre, movement or theme in French and Francophone literature. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

## FRENC 530. French and Francophone Cultural Studies (3)

Prerequisites: French 302 and 421 or 422.
Specialized study of artistic and intellectual trends, customs, and politics in French and Francophone culture. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

## FRENC 596. Topics in French Studies (1-4)

Prerequisite: French 302.
Topics in French 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 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: Extended Studies Center 303
TELEPHONE: 619-594-2225
FAX: 619-594-6530

## Faculty

Chair: McClish
Lecturers: Morgan, Quan
Adjunct: Keesey
Offered by the Department of Rhetoric and Writing Studies
Courses in general mathematics studies.
Major or minor work in general mathematics studies is not offered

## General Information

The principal role of the General Mathematics Studies program is to prepare students to satisfy the CSU Entry Level Mathematics requirement and to prepare students to succeed in their GE entry level Mathematics course. Receiving a credit in General Mathematics Studies 91 or 99C satisfies the ELM requirement* as well as the Mathematics Placement Examination, Part IA (intermediate algebra) requirement - a prerequisite for students wishing to enroll in most entry level mathematics and statistics courses. For more information on these mathematics requirements, refer to the "Graduation Requirements" section of this catalog.

The General Mathematics Studies program offers one unit workshops in geometry and other selected topics in mathematics.

The units awarded to a student who earns a grade of "Credit" in a General Mathematics Studies course are not applicable to the baccalaureate degree.

* The ELM requirement is satisfied by these courses only if the student has already attempted and failed the ELM.


## Courses (GMS)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES (Non-Baccalaureate Credit)

General mathematics studies courses numbered below 100 may not be used to satisfy general education or graduation requirements.
GMS 90. Fundamentals of Mathematics (3) Cr/NC/RP I, II, S
Prerequisite: Appropriate score on the CSU Entry-Level Mathematics Examination (ELM), 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 91. Students earning "RP" (report in progress) go to specially designated sections of General Mathematics Studies 91. Students earning "NC" (no credit) should repeat General Mathematics Studies 90. May be repeated with consent of instructor. Maximum credit six units. General Mathematics Studies 90 (formerly numbered General Mathematics Studies 90A) is equivalent to General Mathematics Studies 99A.

## In the College of Arts and Letters

## *GMS 91. Intermediate Algebra (3) Cr/NC I, II, S

Prerequisites: Credit in General Mathematics Studies 90 or 99A or appropriate score on the ELM.

A review of intermediate algebra skills. Topics include polynomials, rational and radical expressions, complex numbers, linear and quadratic equations (and graphs), systems of equations, set and function notation, conic sections, exponential and logarithmic functions, and sequences and series. Credit in General Mathematics Studies 91 satisfies the Mathematics Placement Examination, Part IA and Entry Level Mathematics Examination requirements.

## GMS 98. Mini-Course: Selected Topics (1) Cr/NC

Assorted short courses which will cover a variety of general mathematics skills 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.
A. Learning Skills
B. Communication Skills

GMS 99A. Fundamentals of Mathematics (4) Cr/NC/RP I, II
Three lectures and one hour of activity.
Prerequisite: Appropriate score on the CSU Entry-Level Mathematics Examination (ELM), the General Mathematics Studies diagnostic test, or other standardized mathematics examination and freshman class standing.

Review of arithmetic and elementary algebra; topics from geometry covered in adjunct workshops (General Mathematics Studies 98A). Students attend mandatory weekly reinforcement workshops one hour each week in mathematics laboratory. Students earning credit in General Mathematics Studies 99A enroll in General Mathematics Studies 99C the next semester, students earning an "RP" (report in progress) enroll in General Mathematics Studies 99C or specially designated sections of General Mathematics Studies 91, and students earning "NC" (no credit) enroll in General Mathematics Studies 90 or 99A in their next semester. General Mathematics Studies 99A is equivalent to General Mathematics Studies 90.

## *GMS 99C. Intermediate Algebra (4) Cr/NC

Three lectures and one hour of activity.
Prerequisite: Grade of "Cr" (credit) in General Mathematics Studies 99A 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 99A or whose ELM or diagnostic score indicates that this is the appropriate level for them, but who have not yet satisfied the CSUEntry Level Mathematics Examination (ELM) requirement. 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. A "credit" in General Mathematics Studies 99C satisfies ELM and SDSU Mathematics Placement Examination, Part IA.

[^22]
## 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 (gen s)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

GEN S 100. University Seminar (1) Cr/NC
Prerequisite: Open only to freshmen.
Provides opportunities to interact with faculty and staff in a small group setting. Students acquire study and interpersonal skills for academic and personal success. Special sessions are offered featuring campus resources including library, advising, career, health and wellness services.
A. University Seminar
B. Learning in Communities
C. Living/Learning Community

## GEN S 130. Child and Adolescent Development from a Cultural Perspective (3) [GE]

Theories of human development using a cultural/ecological framework applied to case studies and direct observations. Open only to liberal studies majors.

## GEN S 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, AD-101. 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.

## GEN S 250. Interdisciplinary Topics (1-4)

Interdisciplinary selected topics course. To enroll contact the faculty adviser of the department offering the course. May be repeated with new content. Maximum credit four units.

## GEN S 260A-260B-260C. Composing Identities (3-3-3) [GE]

Prerequisite for 260A: Satisfaction of the SDSU writing competency requirement. (See Graduation Requirements section of catalog.) Proof of completion of prerequisites required: Copy of EPT or competency scores or verification of exemption; proof of credit (Cr) in Rhetoric and Writing Studies 92A or 92B or 97.

Interdisciplinary course that explores the rich complexity of human identity in diverse cultures. Nine-unit package taught by three faculty members, emphasizes discussion seminars and active learning, including a community-based service learning project. See Class Schedule for specific content. General Studies 260A not open to students with credit in Africana Studies 120, Chicana and Chicano Studies 111B, English 100, Linguistics 100, Rhetoric and Writing Studies 100, 101, or higher-numbered composition course. (General Studies 260A formerly numbered General Studies 250A entitled Composing Identities: Writing. General Studies 260B formerly numbered General Studies 250B entitled Composing Identities: Humanities. General Studies 260C formerly numbered General Studies 250C entitled Composing Identities: Social and Behavioral Sciences.)

## GEN S 260D-260E-260F. Imagining Communities (3-3-3) [GE]

Prerequisite for 260D: Satisfaction of the SDSU writing competency requirement and General Studies 260A or Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.

Interdisciplinary exploration of diverse human communities as they are imagined, expressed, and transformed. Nine-unit package taught by three faculty members, emphasizes discussion seminars and active learning, including a community-based service learning project. See Class Schedule for specific content. General Studies 260D not open to students with credit in Africana Studies 200, Chicana and Chicano Studies 200, English 200, Linguistics 200, or Rhetoric and Writing Studies 200. (General Studies 260D formerly numbered General Studies 250D entitled Imagining Communities: Writing. General Studies 260E formerly numbered General Studies 250E entitled Imagining Communities: Humanities. General Studies 260F formerly numbered General Studies 250F entitled Imagining Communities: Social and Behavioral Sciences.)

## GEN S 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. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

## GEN S 321. Gay and Lesbian Identities in the Modern

 World (3) [GE]Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Interdisciplinary field of Iesbian and gay studies with attention to social and political institutions and development of personal identity. Topics include discrimination, internalized homophobia, political activism, and diversity within lesbian, gay, bi-sexual, and transgendered community.

## GEN S 322. Gay and Lesbian History and Culture (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Interdisciplinary field of lesbian and gay studies with attention to history and artistic expression. Topics include varying attitudes toward homosexuality in history, as well as literary, artistic, theatrical, and musical contributions of the lesbian, gay, bi-sexual, and transgendered community.

## GEN S 330. Plagues Through the Ages (3) [GE]

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 have played in development of civilizations from beginning of recorded history to present.

## GEN S 340. Confronting AIDS (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning, II.B. Social and Behavioral Sciences, and II.C. Humanities.

Examines the AIDS epidemic from historical, epidemiological, biological, medical, psychological, political, legal, and ethical perspectives.

## GEN S 350. Interdisciplinary Topics (1-4)

Interdisciplinary selected topics course. To enroll contact the faculty adviser of the department offering the course. May be repeated with new content. Maximum credit four units.

## GEN S 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, AD-101. 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.

## GEN S 410. Civilization Through Travel-Study (2-3)

Prerequisite: Upper division standing.
Civilization through faculty-supervised foreign travel-study. Requires lecture attendance, excursions and site visits, examinations and written reports.

## GEN S 413. Multicultural Aspects of Social Institutions (3) [GE] I, II

Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences and the Honors Program curriculum (excluding Honors Thesis).

Discussion of various social institutions from multicultural and interdisciplinary perspectives. (Formerly numbered General Studies 350 entitled "Honors: Social Institutions.")

GEN S 420. Disability and Society (3) [GE] 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 individuals with disabilities: attitudes toward individuals and interrelationship between societal institutions and needs of people with disabilities; historical response to these needs and contemporary issues with particular emphasis on normalization, integration, and community living.

## GEN S 450. Life and Culture Semester Abroad (3) [GE]

Prerequisites: Upper division standing and completion of the General Education requirement in Foundations II.C., Humanities.

Life and culture of a foreign country through an approved "semester abroad" program sponsored by an academic department or program at SDSU. Requires lecture attendance, excursions and site visits, examinations and written reports. See Class Schedule for geographic location.

## GEN S 490A. Honors Senior Thesis (3)

Prerequisite: Completion of the honors program required course sequence.

Conventions of scholarly writing as appropriate for honors theses. Analysis of specific disciplinary texts. Defining questions, drafting, and revising manuscripts.

## GEN S 490B. Honors Senior Thesis (3) Cr/NC

Prerequisite: General Studies 490A with grade of C or higher.
Conventions of scholarly writing as appropriate for honors theses. Analysis of specific disciplinary texts. Defining questions, drafting, and revising manuscripts.


# Geography 

## In the College of Arts and Letters

OFFICE: Storm Hall 323
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## Faculty

Emeritus: Blick, Eidemiller, Fredrich, Getis, Greenwood, Griffin, Johnson, Keen, Kiewiet de Jonge, McArthur, O'Brien, Pryde, Quastler, Stutz, Taylor, Wright, Yahr
Chair: O'Leary
The Stephen and Mary Birch Foundation Chair in Geographical Studies: Christakos
Professors: Aguado, Aitken, Christakos, Ford, Hope, Jankowski, O'Leary, Rey, Stow, Weeks
Associate Professors: Tague, Tsou
Assistant Professors: An, Bosco, Costello, Skupin

## Offered by the Department

Doctor of Philosophy degree in geography.
Master of Arts degree in geography.
Master of Science degree in geography.
Concentration in geographic information science.
Concentration in watershed science.
Major in geography with the B.A. degree in liberal arts and sciences. Emphasis in methods of geographical analysis.
Emphasis in natural resource and environmental geography. Emphasis in physical geography.
Emphasis in urban and regional analysis.
Major in geography with the B.S. degree in applied arts and sciences Emphasis in geographic information science.
Minor in geography.
Certificate in geographic information science.

## 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 Department of Geography to endow a chair and create a Center for Earth Systems Analysis Research. Dr. George Christakos, internationally recognized for his expertise in theory and methodology of spatial analysis and mathematical modeling applied to environmental, ecological, health, and geographical systems, is the third 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 geographyfocusing on scientific explanations of the earth's physical features and processes; natural resource and environmental geographyconcerned 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 Science. 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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 Program

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)
Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or English $508 \mathrm{~W}, 581 \mathrm{~W}, 584 \mathrm{~W}$, or Rhetoric and Writing Studies 305W, 500W, 503 W with a grade of $\mathrm{C}(2.0)$ or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Student Assessment. Passing Geography 495 with a grade of credit $(\mathrm{Cr})$ to be taken during the fall or spring semester of the calendar year in which the student expects to graduate. Geography 495 is not included in the minimum units required for the major.

Major. A minimum of 27 upper division units in geography to include three units selected from each of the following groups: (a) Geography 321-336; (b) 353-354, 554-559, 585-586; (c) 370, 378, 483, 570-575; (d) 378, 401, 409, 504-511; (e) 380-381; (f) 385, 484, 581-588, and nine units from one of the following groups: (a) Physical: Geography 378, 401, 409, 504-511; (b) Natural Resource and Environmental: 370, 378, 483, 570-575; (c) Urban and Regional Analysis: 353-354, 385, 554-559, 585-586; (d) Methods of Geographical Analysis: $380-385,484,581-588$; (e) Cultural: 354, 554 , but not more than six units from Geography 312, 321-336. 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, 104; Computer Science 106 or 107; Statistics 250 or comparable statistics course. (16 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or English $508 \mathrm{~W}, 581 \mathrm{~W}, 584 \mathrm{~W}$, or Rhetoric and Writing Studies 305W, 500W, 503 W with a grade of $C(2.0)$ or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Student Assessment. Passing Geography 495 with a grade of credit ( Cr ) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate. Geography 495 is not included in the minimum units required for the major.

Major. A minimum of 36 upper division units in geography to include Geography 385; 15 units selected from Geography 380-381, 484, 498, 581-588*; three units selected from each of the following groups: (a) 321-336; (b) 370, 483, 570-575; (c) 353-354, 554-559; six units selected from Geography 378, 401, 409, 504-511; and three units of upper division geography electives.

[^23]
## 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; Political Science 102; Statistics 250 or comparable statistics course. (17 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Student Assessment. Passing Geography 495 with a grade of credit ( Cr ) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate. Geography 495 is not included in the minimum units required for the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or English $508 \mathrm{~W}, 581 \mathrm{~W}, 584 \mathrm{~W}$, or Rhetoric and Writing Studies 305W, 500W, 503 W with a grade of $\mathrm{C}(2.0)$ or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

## Track (a): Environmental Analysis

Additional Preparation for the major. Mathematics 121 or 150; Chemistry 100; and Physics 107. (11-13 units)

Major. A minimum of 36 upper division units in geography to include Geography 370 and 385; three units from 380-381; three units from 321-336; six units from 378, 401, 409, 504-511, and three units from 353-354, 554-559.

An additional 15 units to be selected from 3 or 4 units from Geography 484 or 587, three units from 581-588, and nine units from 483, 570575, 595.

## Track (b): Environmental Policy

Additional Preparation for the major. Economics 101 or 102. (3 units)

Major. A minimum of 36 upper division units in geography to include Geography 370 and 385; three units from 380-381; three units from 321-336; six units from 378, 401, 409, 504-511, and three units from 353-354, 554-559.

An additional 15 units to be selected from 3 or 4 units from Geography 484, 581-588 and 12 units from 483, 570-575, 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; Chemistry 200; Physics 180A, 182A; Statistics 250 or comparable statistics course. (22-23 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or English $508 \mathrm{~W}, 581 \mathrm{~W}, 584 \mathrm{~W}$, or Rhetoric and Writing Studies 305W, 500W, 503 W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Student Assessment. Passing Geography 495 with a grade of credit (Cr) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate. Geography 495 is not included in the minimum units required for the major.

Major. A minimum of 36 upper division units in geography to include Geography 380 or 381, 385; 15 units selected from Geography 378, 401, 409, 498, 504-511*; six units selected from Geography 484, 581-588; and three units selected from each of the following groups: (a) 321-336; (b) 353-370, 554-575; 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 or 107; Economics 102; Statistics 250 or comparable statistics course. (16 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or English $508 \mathrm{~W}, 581 \mathrm{~W}, 584 \mathrm{~W}$, or Rhetoric and Writing Studies 305W, 500W, 503 W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Student Assessment. Passing Geography 495 with a grade of credit (Cr) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate. Geography 495 is not included in the minimum units required for the major.

Major. A minimum of 36 upper division units in geography to include Geography 385; 15 units selected from Geography 353-354, 498, 554-559, 572, 585-586*; six units selected from 378, 401, 409, 504-511; three additional units from each of the following groups: (a) 321-336; (b) 370, 483, 570-575; (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 Major

With the B.S. Degree in Applied Arts and Sciences (Major Code: 22061)

## Emphasis in Geographic Information Science

Students selecting this emphasis are not required to complete a minor in another department.

Preparation for the Major. Geography 101, 101L, 102, 104; Biology 100, 100L; Chemistry 200; Computer Science 107, 108; Mathematics 121 and 122, or 150; Physics 180A, 182A; Statistics 250 or a comparable statistics course. (36-38 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or English 508W, 581W, 584W, or Rhetoric and Writing Studies 305W, 500W, 503W with a grade of $C$ (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Student Assessment. Passing Geography 495 with a grade of credit (Cr) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate. Geography 495 is not included in the minimum units required for the major.

Major. A minimum of 37 upper division units to include Geography 381, 385, 484, 585, 587; and 21 units of upper division electives selected as follows: six units from Geography 483, 581-595; nine units from Geography 370, 378, 401, 409, 504-511, 570-575; three units from Geography 353-358, 554-559; three units from Computer Science 310*, 320.

* Additional prerequisite required.


## 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, and six units selected from regional courses Geography 321-336.

Methods of Geographical Analysis: Nine units selected from Geography 380-385, 484, 581-589, and three units selected from any other upper division geography course.

Natural Resource and Environment: Nine units selected from Geography 370, 378, 483, 570-575, and three or four units selected from methods courses Geography 380-385, 484, 581-589.

Physical: Nine units selected from Geography 378, 401, 409, 504511, and three or four units selected from methods courses Geography 380-385, 484, 581-589.

Urban and Regional Analysis: Nine units selected from Geography 353-354, 554-559, and three or four units from either methods or regional courses Geography 321-336, 380-385, 484, 581-589.

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 in residence at San Diego State University.

## Geographic Information Science Certificate*

The purpose of the program is to prepare students to acquire, manage, and visualize geospatial data in public and private organizations. Students must apply for admission to the program before the completion of 12 certificate units and must complete the required units with a 2.5 grade point average.

The certificate requires 27 units distributed between the departments of Geography and Computer Science as follows: 12-15 units selected from Geography 104, 381, 484, 581-589, and 12-15 units selected from Computer Science 105, 107, 108, 220, 310, 320, 503, $514,520,535,551,575$. Courses with relevant content (e.g. Geography 596 or Computer Science 596) may be substituted for the geography and computer science courses 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 (Geog)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## GEOG 101. Principles of Physical Geography (3) [GE] I, II

Note: Cannot be used for General Education in combination with Anthropology 101.

Principles underlying the fundamental nature and dynamics of the physical world: the atmosphere, hydrosphere, biosphere, lithosphere, and their systematic spatial relationships.

## GEOG 101L. Physical Geography Laboratory (1) [GE] 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.

## GEOG 102. Principles of Cultural Geography (3) [GE] I, II

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.

## GEOG 103. Weather and Climate (3) [GE] I, II

Note: Cannot be used for General Education in combination with Anthropology 101.

The composition, structure, and circulation of the atmosphere, including elementary theory of storms and other weather disturbances.

## GEOG 104. Geographic Information Science and Spatial Reasoning (3) [GE]

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.

Fundamental concepts in geographic information systems, cartography, remote sensing, spatial statistics, and global positioning systems. Use of critical technologies in addressing human and environmental problems.

## GEOG 106. World Regional Geography (3) [GE] I, II

Cultural and world geography, focusing on elements of culture as applied to regions of the world: ethnicity, language, religion, urbanization, economics, political organization. Alternative conceptions about geography held by children, adults, and individuals of different cultures.

## GEOG 296. Experimental Topics (1-4)

Selected topics. May be repeated with new context. 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 <br> (Intended for Undergraduates)

## GEOG 312. Culture Worlds (3) [GE] I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Geographical characteristics and development of major cultural realms of the world. Spatial components of contemporary conflict within and between these regions. Not open to students with credit in Geography 106.

## GEOG 321. United States (3) [GE] 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.

## GEOG 323. Middle America (3) [GE] 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.

## GEOG 324. South America (3) [GE]

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.

## GEOG 336. Europe (3) [GE]

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.

## GEOG 353. Location of Economic Activity (3)

Prerequisite recommended: Geography 101 or 102.
International arrangement and interrelationship of resources, production, exchange and consumption; principles and theory in industrial location; world trade and economic development selecting favorable locations for capital investments, determining growth potential of service and market areas, meeting environmental impact requirements.

## GEOG 354. Geography of Cities (3) [GE] 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.

## GEOG 370. Environmental and Natural Resource Conservation (3) [GE] 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.

## GEOG 378. Environmental Geomorphology (3)

Prerequisites: Geography 101 and Mathematics 121 or 150.
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.
GEOG 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.

GEOG 381. Computerized Map Design (3) I, II
Two lectures and three hours of laboratory.
Prerequisite: Geography 101 or 102.
Art and science of creating digital maps as media for describing and analyzing geographic phenomena. Computer laboratory instruction and practice in cartographic techniques with emphasis on thematic maps and geographic information systems.

## GEOG 385. Spatial Data Analysis (3) I, II

Prerequisites: Geography 101 or 102; Statistics 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.
GEOG 401. Geomorphology (3)
Prerequisite: Geography 101.
Morphology and genetic interpretation of the relief features of the earth's surface.

## GEOG 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.

## GEOG 483. Watershed Analysis <br> (3) II

Prerequisite: Geography 101.
Watershed analysis is an organizing framework for collecting and analyzing scientific information to facilitate environmental management. Framework examined from both an ecological process and an environmental management perspective.

## GEOG 484. Geographic Information Systems (3)

Two lectures and three hours of laboratory.
Prerequisite: Three units from Geography 380, 381, 587, 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.

## GEOG 495. Geography Capstone (1) Cr/NC

Prerequisite: Senior standing in geography or environmental sciences with an emphasis in watershed science with expectation of graduation within next calendar year.

Synthesis of knowledge gained by students in upper division geography courses at SDSU, based on in-class essays and creation of a portfolio outlining learning experiences in geography. Practical information to prepare for professional employment.

## GEOG 496. Selected Studies in Geography

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.

## GEOG 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.
GEOG 499. Special Study (1-3) I, II
Individual study. Maximum credit six units.

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

GEOG 504. Coastal and Submarine Geomorphology (3)
Prerequisites: Geography 101 and Mathematics 121 or 150.
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 humans. Field trips may be arranged.

## GEOG 505. Fluvial Geomorphology (3) I, II

Prerequisite: Geography 401.
Physical foundation of river systems. Geographic variability in river channels and influence of human activities on fluvial forms and processes. Role of fluvial geomorphology in river and watershed management. Field trips may be arranged.

## GEOG 507. Geography of Natural Vegetation (3) I

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.

## GEOG 508. Environmental Climatology (3)

Prerequisites: Geography 103; Mathematics 121 or 150.
Interaction between the atmosphere and earth surface. Solar and thermal radiation, turbulent heat transfer, soil heat transfer. Change in the atmosphere due to natural variations and human activity. Impacts on the environment.

## GEOG 509. Regional Climatology

(3)

Prerequisite: Geography 103.
The causes of climatic types as they occur throughout the world. Principles of several climatic classifications.

## GEOG 511. Hydrology and Global Environmental Change

Prerequisites: Geography 101 or 103.
Hydrologic processes and regimes, how these are affected by environmental change and how hydrologic process and regimes affect patterns of environmental change. Processes operating at global, regional, and local scales are examined, including land-use/landcover change and climate change.

## GEOG 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.

## GEOG 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.

## GEOG 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.

GEOG 570. Environmental Resource Conservation (3
Prerequisite: Geography 370.
Management of environmental and natural resources. Effective programs and the institutional frameworks in which they occur.

## GEOG 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.

## GEOG 573. Population and the Environment (3)

Prerequisite: Geography 102.
Population distribution, growth, and characteristics as they relate to environmental degradation, both as causes and consequences. Roles of women, sustainable development, carrying capacity, optimum population, and policy initiatives in relationships between population and environment.

## GEOG 574. Water Resources (3

Prerequisite: Geography 370.
Occurrence and utilization of water resources and the problems of water resource development. Field trips may be arranged.

## GEOG 575. Geography of Recreational Land Use <br> (3) I

Prerequisite: Geography 101 or 102.
Importance of location and environment in the use, management, and quality of recreation areas. Field trips may be arranged.
GEOG 581. Cartographic Design (3)
Two lectures and three hours of laboratory.
Prerequisite: Geography 381.
Computer-assisted map production techniques with emphasis on map design and color use.
GEOG 583. Internet Mapping and Distributed GIServices
Two lectures and three hours of laboratory.
Prerequisite: Geography 381 or 484.
Current development of Internet mapping and cartographic skills for web-based maps (multimedia, animation, and interactive design). Fundamental theories of distributed GIS to support Internet mapping with focus on distributed component technologies, Internet map servers and web services. Not open to students with credit in Geography 582.
GEOG 584. Geographic Information Systems Applications
Two lectures and three hours of laboratory.
Prerequisite: Geography 484 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.
GEOG 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.
GEOG 586. Qualitative Methods in Geographic Research (3) II
Prerequisite: Geography 102.
Application of qualitative techniques to geographic research including reflexive survey design and in-depth interviews, non-obtrusive methods, landscape interpretation, textual methods and discourse analysis, feminist criticism, and humanistic and historical materialist perspectives on measurement.
GEOG 587. 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. (Formerly numbered Geography 488.)

GEOG 588. Intermediate Remote Sensing of Environment (4) II
Three lectures and three hours of laboratory.
Prerequisites: Geography 385 and 587.
Multispectral remote sensor systems and interpretation of imagery from nonphotographic systems. Computer-assisted image processing. Geographic analysis of selected terrestrial, oceanographic, and atmospheric processes.

## GEOG 589. GIS-Based Decision Support Methods

Prerequisite: Geography 484
Integration of Geographic Information Systems (GIS) with decision support techniques for problem-solving and decision-making. Public participation and collaborative use of GIS for location-based planning and resource management.

## GEOG 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.

## GEOG 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: Geology/Mathematics/Computer Science 237

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## Faculty

Emeritus: Abbott, Berry, Bertine, Gastil, Huntley, Jiracek, Kern, Krummenacher, Marshall, McEuen, Miller, Ptacek, Roberts, Threet, Walawender, Wallace
Chair: Girty
The Rollin and Caroline Eckis Chair in Seismology: Day Professors: Day, Dorman, Girty, Kimbrough, Peterson, Rockwell Associate Professors: Frost, Olsen, Riggs, Thorbjarnarson
Assistant Professors: Leighton, Pietruszka, Schellenberg Lecturers: Camp, Robinson, SacramentoGrilo

## 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.

Emphasis in general geology.
Emphasis in engineering geology.
Emphasis in geochemistry.
Emphasis in geophysics.
Emphasis in hydrogeology.
Emphasis in marine geology.
Emphasis in paleontology.
Teaching major in geological sciences for the single subject teaching credential in science.
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. The late Rollin Eckis was 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 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 both the arts and sciences, should consider geological sciences as a major.

The employment outlook is favorable, particularly with engineering, hydrogeology, toxic waste disposal firms, energy companies, and as 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, quarry, hydrology, and engineering geology companies and by government agencies, such as the U.S. Geological Survey, 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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 or more 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.

## Emphasis in General Geology

Preparation for the Major. Oceanography 100, or Geological Sciences 100 and 101, or Geological Sciences 104 and 101; Geological Sciences 200, 205, 221; Biology 100, 100L; Chemistry 200, 201; Mathematics 150, 151; Physics 195, 195L, 196, 196L. (45 units)

Recommended: Physics 197, 197L; Mathematics 252.
Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of $38-40$ upper division units in approved courses to include Geological Sciences 300, 306, 307, 324, 498A, 498B, 508, 530, 536, 537; plus six additional upper division units from geological sciences (upper division courses from outside department by approval).

## Emphasis in Engineering Geology

Preparation for the Major. Oceanography 100, or Geological Sciences 100 and 101, or Geological Sciences 104 and 101; Geological Sciences 200, 205, 221; Biology 100; Chemistry 200, 201; Engineering Mechanics 200; Mathematics 150, 151, 252; Physics 195, 196, 197; Statistics 250. (55 units)

Recommended: Civil Engineering 218; Physics 195L, 196L, 197L.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 38 upper division units in approved courses to include Geological Sciences 300, 306, 307, 324, 498B, 508, 536, 551; Civil Engineering 301, 462, 463; one of the following: Geological Sciences 505, 514, 530, 560, or Civil Engineering 465.

## Emphasis in Geochemistry

Preparation for the Major. Oceanography 100, or Geological Sciences 100 and 101, or Geological Sciences 104 and 101; Geological Sciences 200, 221; Biology 100 or 101; Chemistry 200, 201, 231, 251; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, 197L; Statistics 250. (60 units)

Recommended: Geological Sciences 205, 307; Chemistry 431.
Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units in approved courses to include Geological Sciences 300, 306, 324, 498B, 501, 530, 536, 551; Chemistry 410A-410B, 571.

## Emphasis in Geophysics

Preparation for the Major. Oceanography 100, or Geological Sciences 100 and 101, or Geological Sciences 104 and 101; Geological Sciences 200, 221; Biology 100 or 101; Chemistry 200, 201; Mathematics 150, 151, and 252; Physics 195, 195L,196, 196L,197. Engineering 280 must be taken if students select Engineering 510 in the major. (40-43 units)

Recommended: Geological Sciences 205, Physics 197L, Statistics 250 .

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of $40-43$ upper division units in approved courses to include Geological Sciences 300, 306, 307, 324, 498B, 533, and 560; Mathematics 342A and 342B, or Engineering 510; Physics 311, 350; Physics 400A or Electrical Engineering 340; plus three upper division units of approved courses in geological sciences at the 500 level.

## Emphasis in Hydrogeology

Preparation for the Major. Oceanography 100, or Geological Sciences 100 and 101, or Geological Sciences 104 and 101; Geological Sciences 200, 205, 221; Biology 100; Chemistry 200, 201; Mathematics 150, 151; Physics 195, 196, 197; Mathematics 252 or Chemistry 231; Statistics 250. (52 units)

Recommended: Physics 195L, 196L, 197L.
Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units in approved courses to include Geological Sciences 300, 306, 324, 498B, 514, 530, 536, 551; Mathematics 342A-342B, or Chemistry 571; plus four to seven upper division units of departmentally approved courses.

## Emphasis in Marine Geology

Preparation for the Major. Oceanography 100, or Geological Sciences 100 and 101, or Geological Sciences 104 and 101; Geological Sciences 200, 205, 221; Biology 100 or 101; Chemistry 200, 201; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, 197L. (52 units)

Recommended: Geological Sciences 537. A foreign language.
Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 40 upper division units in approved courses to include Geological Sciences 300, 306, 307, 324, 498B, 530, 536, 540, 545 , and two of the following courses: Geological Sciences 501, 508, 537, Biology 517; plus four upper division units of departmentally approved courses. Recommended: Chemistry 410A-410B for students anticipating postgraduate studies.

## Emphasis in Paleontology

Preparation for the Major. Oceanography 100, or Geological Sciences 100 and 101, or Geological Sciences 104 and 101; Geological Sciences 200, 205, 221; Biology 201A, 201B, 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. (48-50 units)

## Recommended: Geological Sciences 307.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 38 upper division units in approved courses to include Geological Sciences 300, 306, 324, 498A, 498B, 501, 508, 536, 537; Biology 352, 354; plus four upper division units of departmentally approved courses.

## Geological Sciences Major

In preparation for the Single Subject Teaching Credential in Science/Geological Sciences
With the B.S. Degree in Applied Arts and Sciences (Major Code: 19141)

No new students will be accepted effective July 1, 2006. Students declared in this major prior to July 1, 2006, will have until July 1, 2009 to complete the major to qualify for the subject matter waiver of the CSET examination. Contact the department for additional information.

One of the requirements for acceptance into the College of Education's post-baccalaureate credential program is to either pass the appropriate CSET examinations or complete an approved academic program. The single subject teaching credential in science subject matter preparation program described below satisfies the academic requirements for a student planning to teach integrated science and geosciences at the secondary level. Entrance into the post-baccalaureate credentialing program in part requires certification of subject matter competency by this department. This certification requires completion of the academic program with the required grades, submission of a satisfactory portfolio, and the recommendation of the department. Contact the subject matter preparation program adviser. In addition, all candidates for a Single Subject Teaching credential at San Diego State University must complete the requirements outlined in the catalog under Teacher Education or Policy Studies. Contact the School of Teacher Education or the Policy Studies in Language and Cross-Cultural Education Department for up-to-date information on prerequisites.

General Education Requirements. Students will complete a minimum of 49 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. No more than 7 units from one department can be used in Sections II and IV combined (Foundations and Explorations), nor more than 10 units from one department in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).
I. Communication and Critical Thinking: 9 units

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

1. Oral Communication (3 units) to be satisfied by Africana Studies 140, Chicana and Chicano Studies 111A, or Communication 103.
2. Composition (3 units) to be satisfied by Africana Studies 120, Chicana and Chicano Studies 111B, or Rhetoric and Writing Studies 100.
3. Intermediate Composition and Critical Thinking (3 units) to be satisfied by Africana Studies 200 or Rhetoric and Writing Studies 200.
II. Foundations (28 units)
A. Natural Sciences and Quantitative Reasoning (13 units):
4. Physical Sciences ( 6 units) to be satisfied by Chemistry 200 and Physics 180A or 195.
2-3. Life Sciences and Laboratory (4 units) to be satisfied by Biology 100 and 100L.
5. Mathematics/Quantitative Reasoning ( 3 units) to be satisfied by Mathematics 150. You may not use Credit/No Credit grades.
B. Social and Behavioral Sciences (6 units).
C. Humanities (9 units):

Complete a course in each of three of the following four areas
(1. Literature; 2. Art, Classics, Humanities, Music, and Theatre; 3. Philosophy and Religious Studies; 4. Foreign Language) in the Humanities section of the Foundations component of the regular General Education program. Refer to General Education course offerings in the Graduation Requirements section of the catalog. One semester of a foreign language is recommended.

## 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 (9 units)

Courses in this area must not be taken sooner than the semester in which you achieve upper division standing (60 units passed). Upper division courses in the major department may not be used to satisfy General Education.
A. Upper division Social and Behavioral Sciences (3 units). Linguistics 420 is recommended.
B. Upper division Humanities to be satisfied by History 441 (3 units).
C. Upper division Humanities ( 3 units). A course in cultural diversity is required. Refer to Part C of Explorations under the General Education requirements section in the catalog.

## The Major

Preparation for the Major. Africana Studies 140, Chicana and Chicano Studies 111A, or Communication 103; Africana Studies 120, Chicana and Chicano Studies 111B, or Rhetoric and Writing Studies 100; Africana Studies 200 or Rhetoric and Writing Studies 200; Astronomy 101, 109; Biology 100, 100L; Chemistry 200, 201; Geography 103; Geological Sciences 200, 205, 221; Mathematics 150; Physics 180A, 180B, 182A, 182B OR Physics 195, 195L, 196, 196L, 197, 197L; Statistics 250. (56-60 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section a complete listing of requirements.

Major. A minimum of 36 units to include Geological Sciences 300, 303 (allowed only in this version of the major in Geological Sciences), 306, 324, 498A, 498B, 501, 536, 537; Biology 319; and six units selected from Geological Sciences 305, 307, 505, 508, 514, 520, 530, 540, 545.

## Additional Requirements for Subject Matter Preparation Certification

Satisfactory Grades. At most one course with a C- or lower among the courses listed under Preparation for the Major, and at most one course with a C- or lower among the courses listed under the Major. If a course is repeated, the highest grade will count.

Formative Assessment. Completion of a satisfactory, preliminary portfolio two semesters prior to graduation. Contact the subject matter preparation adviser for information.

Summative Assessment. Completion of a satisfactory, final portfolio, and a positive recommendation from a committee consisting of the senior project supervisor, the Department of Geological Sciences chair, and the subject matter preparation program adviser.

## 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. Courses include Geological Sciences 100, 101, 205; and twelve units selected from Geological Sciences 301, 302, 303, 304, $305,306,307,324,502,505,514,536,537$. In addition, Geological Sciences 200 and 221 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 in residence at San Diego State University.

## Oceanography Minor

For a listing of requirements refer to the section of this catalog on Oceanography.

## Courses (GEOL)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information

## LOWER DIVISION COURSES

## GEOL 100. Planet Earth (3) [GE] I, II

(Selected sections offered as distance education.)
Earth's global systems. Plate tectonics, earthquakes, and volcanoes; evolution of our planet and life through geologic time; economic resources including fossil fuels and precious minerals; agents of erosion that shape the land.

GEOL 101. Dynamics of the Earth Laboratory (1) [GE] I, II
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.

## GEOL 104. Earth Science (3) [GE]

Earth's four principal reservoirs and their interconnectedness: solid earth, ocean, atmosphere, and biosphere. How humanity affects and is affected by these reservoirs. Most appropriate for liberal studies majors.

## GEOL 200. Geologic Inquiry and Problem Solving <br> (3) I

Two lectures and three hours of laboratory
Scientific thought process using real problems addressed by student research in field and laboratory. Includes written report and oral presentation.

## GEOL 205. Historical Geology (4) I

Three lectures and three hours of laboratory. Arrangement for field study during the semester.

Prerequisites: Geological Sciences 100 and 101.
Evolutionary history of earth as traced through rock and fossil records. Stratigraphic and depositional concepts. (Formerly numbered Geological Sciences 105.)

## GEOL 221. Mineralogy (4) I

Two lectures and six hours of laboratory.
Prerequisites: Credit or concurrent registration in Geological Sciences 200; high school chemistry and trigonometry, or credit or concurrent registration in college chemistry and trigonometry.

Practice in determination of common minerals; their geologic environment, utilization, and economic significance. Introduction to optical techniques in mineral identification.

## GEOL 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)

GEOL 300. Computer Applications in Geology (3)
Two lectures and three hours of laboratory.
Programming and applications of software fundamentals to geological sciences. Applications software will include DOS, Windows, and MacIntosh operating systems, word processing, spreadsheets, graphing, contouring, and drawing. Introduction to Internet and overview of geology-specific software.

## GEOL 301. Geology of National Parks and Monuments (3) [GE] I, II

(Selected sections offered as distance education.)
Prerequisites: Geological Sciences 100 or completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Geology of a group of national parks and monuments, selected for their geological significance, scenic beauty, and visitor popularity. Not acceptable for a major in geological sciences.
GEOL 302. Fossils: Life Through Time (3) [GE] I, II
Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Traditional and recently discovered aspects of history of life on earth. Topics from the origin of life to extinctions. Not acceptable for a major in geological sciences.

## GEOL 303. Natural Disasters (3) [GE] I, II

Prerequisite: Geological Sciences 100 or completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning

Geologic processes that have dramatically affected the human race: earthquakes, volcanoes, landslides, and floods. Not acceptable for a major in geological sciences.

## GEOL 304. Planetary Geology (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning. Recommended: Geological Sciences 100.

Structure, evolution, and surface features of planets from a geological point of view. Insights gained into origin and evolution of planetary bodies provide greater understanding of how planet earth operates and why it is unique. Not acceptable for a major in geological sciences.

GEOL 305. Water and the Environment (3) [GE]
Prerequisites: Geological Sciences 100 or Geography 101 and completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Movement of fresh water on earth. Hydrologic cycling of water from precipitation, runoff, infiltration, stream and groundwater flow to the ocean. Problems caused by over-use of water resources, urbanization, and water pollution examined with case studies. Not acceptable for a major in geological sciences, emphasis in hydrogeology.

## GEOL 306. Structural Geology and Field Methods (5) I

Two lectures and three hours of laboratory and six weekends in the field.

Prerequisites: Geological Sciences 300, 324; algebra, trigonometry and at least high school physics. Highly recommended: First semester college physics.

Integrates structural and introductory field geology. Principles, causes, and mechanisms of rock deformation combined with field study. Graphical, computer, and analytical techniques for working with folds and faults are applied in the field. Field observations are presented in geologic maps, cross sections, and reports.

## GEOL 307. Geophysics and Field Methods (4) II

Two lectures and three hours of laboratory and a minimum of three weekends in field during semester.

Prerequisites: Geological Sciences 306; Mathematics 150; Physics 195 or 180A.

Principles and field studies of gravity, magnetic, and seismic techniques applied to structure, dynamics, and shallow environment of the earth. Computer-aided data reduction and interpretation.

## GEOL 324. Petrology (4) II

Two lectures and six hours of laboratory.
Prerequisite: Geological Sciences 221.
Composition, classification, occurrence, and origin of igneous, sedimentary, and metamorphic rocks. Identification of rocks in hand specimen; petrographic analysis of rocks in thin section; modeling and interpretation of petrologic data. (Formerly numbered Geological Sciences 224.)
GEOL 412. Processes and Inquiry in the Earth Sciences
Three lectures and two hours of activity.
Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Investigation of processes of inquiry and rational thinking skills characteristic of the earth sciences. (Formerly numbered Natural Science 412D.)

## GEOL 496. Selected Topics in Geology (1-4)

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.

## GEOL 498A. Senior Seminar (1) Cr/NC I,II

Prerequisite: Senior standing in geological sciences.
Preparation of written and oral scientific reports and attendance at departmental seminars.

GEOL 498B. Senior Thesis (2) I, II
Prerequisite: Consent of instructor.
Individual research project, written thesis, and oral presentation done under supervision of professor chosen by student.
GEOL 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)

## GEOL 501. Geochronology (3)

Two lectures and three hours of laboratory.
Prerequisite: Geological Sciences 324.
Survey of radiometric, chemical, stratigraphic, and paleomagnetic methods used to establish time in relationship to the history of the earth. Basis for correlation of geologic events and estimation of rates and periodicity of geologic processes.
GEOL 502. Geology of North America (3) I
Prerequisite: Geological Sciences 205.
A regional analysis of North American geology, its structural, stratigraphic, and tectonic patterns, and hypotheses concerning their origin and evolution.
GEOL 505. Photogeology and Remote Sensing
(3) II

Two lectures and three hours of laboratory.
Prerequisite: Geological Sciences 200.
Geologic interpretation of aerial and satellite photographs, elementary stereoscopy and stereometry applied to structural and stratigraphic problems, and compilation of geologic maps from annotated aerial and satellite photographs.

## GEOL 508. Advanced Field Geology (4 or 6)

One lecture and three hours of laboratory plus 28 days in the field. For the option with six units: two additional weeks of field or laboratory work.

Prerequisite: Geological Sciences 306.
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.
GEOL 514. Process Geomorphology (3)
Two lectures and three hours of laboratory.
Prerequisite: Geological Sciences 306.
Processes shaping and affecting the earth's surface, and application of resultant land forms in interpretation of geologic structure, stratigraphy, and neotectonics.

## GEOL 520. Ore Deposits (3) I

Prerequisite: Geological Sciences 306.
Geologic relations, origin, distribution, and economics of metallic and nonmetallic mineral deposits.

## GEOL 530. Geochemistry (3) I

Two lectures and three hours of laboratory.
Prerequisites: Geological Sciences 324; Chemistry 201; Mathematics 150.

Fundamental principles of low- and high-temperature geochemistry. Origin of the elements; formation of the solar system; differentiation of the earth; weathering at the earth's surface; chemistry of natural waters. Laboratory methods applied to geological problems. Not open to students with credit in Geological Sciences 530L.

## GEOL 533. Geophysical Analysis (3)

Two lectures and three hours of laboratory.
Prerequisites: Geological Sciences 307, 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.

## GEOL 536. Sedimentology and Lithostratigraphy <br> (3) I

Two lectures and three hours of laboratory.
Prerequisites: Geological Sciences 205 (not required but recommended for Emphases in Geochemistry and Geophysics) and 324.

Sedimentologic description and interpretation of the textures and structures of sediments and sedimentary rocks. Stratigraphic analysis of stratal succession, age relationships, and correlation on local and global scales.

## GEOL 537. Geobiology (3) II

Two lectures and three hours of laboratory.
Prerequisites: Geological Sciences 205 and either Biology 100100L, 101-101L or 201A, and Geological Sciences 536.

Principles of paleontology, including ecology and evolution. Tools of paleontology, including biomechanics, shape analysis, phylogeny, population analysis, study of biogeographic, temporal, and environmental distribution. Focus on using biology to solve geologic problems and vice versa.

## GEOL 540. Marine Geology (3)

Prerequisites: Geological Sciences 205, and either Geological Sciences $324,502,514$, or 537.

Plate tectonic origin and history of the ocean basins. Formation and distribution of sediments in response to biologic, chemical, and geologic processes.
GEOL 545. Descriptive Physical Oceanography (3)
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.

## GEOL 551. Hydrogeology (3) I

Two lectures and three hours of laboratory.
Prerequisites: Geological Sciences 306 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.
GEOL 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.
GEOL 580. Seismic Interpretation and 3D Visualization (3)
Two lectures and three hours of laboratory.
Prerequisite: Geological Sciences 306.
Computer-based seismic interpretation, mapping, and modeling in both 2D and 3D. Overview of basic seismic processing. Emphasis on industrial applications, both petroleum and shallow geotechnical. (Formerly numbered Geological Sciences 647.).
GEOL 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 

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## Faculty

Emeritus: Boney, Dunkle, Lawson, Paulin, Wulbern
Chair: Benkov
Professor: Skwara
Associate Professor: Wauchope
Lecturers: Guzman, Mallard

## Offered by the Department of European Studies

Major in German with the B.A. degree in liberal arts and sciences. Emphasis in German studies
Major in European studies with emphasis in German.
See European Studies.
Major in international business, with emphasis in German.
See International Business.
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.

The German major with an emphasis in German studies offers extensive preparation in the German language while providing students with a broad, interdisciplinary understanding of the history, culture, and society of the countries of Central Europe where German is spoken. This emphasis provides excellent preparation for careers as area specialists for private businesses and agencies or for positions at international organizations, with the federal government, or in cultural institutions.

Students majoring in German are strongly encouraged to participate in California State University International Programs (CSU-IP) and other approved study abroad programs in German-speaking countries. Students also have the option of pursuing a double major in another language area study.

## 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.

## In the Department of European Studies in the College of Arts and Letters

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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, 202, 205A, 205B. (21 units)

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

International Experience Requirement. All German majors are required to complete an approved study abroad program in a Germanspeaking country consisting of a minimum of six units ( 90 hours). However, German majors are strongly encouraged to complete a more extensive abroad experience by participating in a semester or an academic year program. To fulfill the International Experience Requirement, German majors must enroll in a study abroad program approved by the department. Unapproved study abroad programs will not meet the international experience requirement for the major.

Major. A minimum of 27 upper division units to include German 300, 301, 304, 400, 430, and 12 units in upper division German. No more than one German course taught in English can apply to the major.

## Emphasis in German Studies

No minor is required with this emphasis.
Preparation for the Major. German 100A, 100B, 202, 205A and 205B. (21 units)

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include German 300, 301, 430; six units of electives in German; 12 units (no more than
six units in any one department) selected from Art 558, Economics 330, Geography 336, History 440, Humanities 320, 404, Philosophy 414, Political Science 356; and three units of electives selected with approval of department adviser.

## German Minor

The minor in German consists of a minimum of 15 units taught in German, nine units of which must be in upper division German courses. Any course taught in English needs department approval to apply to the minor requirements.

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 in residence at San Diego State University.

## Language Requirement for the

## B.A. Degree in Liberal Arts and Sciences

Students electing the study of German to fulfill the language requirement for the bachelor of arts degree in liberal arts and sciences must successfully complete German 202 or 205A or 205B or the equivalent level of achievement. The usual sequence of coursework is German 100A, 100B, 202, 205A and 205B. 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 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 or five college quarters, thus fulfilling the language requirement.

## Courses (germn)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## 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 unless otherwise stated.

No credit will be given for lower division courses taken after successfully completing any upper division German course taught in German.

No credit will be given for German 100A, 100B, 205A, 205B taken out of sequence. German 202 may be taken concurrently with German 205A or 205B.

GERMN 100A. First Course in German (5) [GE] 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.

## GERMN 100B. Second Course in German (5) [GE] 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.
GERMN 150. Introduction to German Studies (3) [GE]
Introduction to field of German studies with emphasis on cultural life of German-speaking communities and their impact worldwide on major artistic, intellectual, and cultural movements. Taught in English.

## GERMN 202. Readings in German (3) [GE]

Prerequisite: German 100B.
Reading comprehension through intermediate-level cultural materials. May be taken concurrently with German 205A or 205B.
GERMN 205A. Third Course in German (4) [GE]
Four lectures and one hour of laboratory.
Prerequisite: German 100B or three years of high school German.
Continuation of German 100B. Practice of all language skills at intermediate level.

GERMN 205B. Fourth Course in German (4) [GE]
Four lectures and one hour of laboratory.
Prerequisite: German 205A.
Continuation of German 205A. Practice of all language skills at intermediate level.

## GERMN 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.

## GERMN 300. Readings in Contemporary German Culture (3) [GE]

Prerequisites: German 202 and 205B. Completion of the General Education requirement in Foundations II.C., Humanities required for non-majors.

Development of advanced proficiency in reading comprehension and oral communication through use of cultural materials. Not open to students who hold a degree from a secondary or post-secondary school in which the primary language of instruction is German.
GERMN 301. Grammar and Composition (3) [GE]
Prerequisites: German 202 and 205B. 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. Not open to students who hold a degree from a secondary or post-secondary school in which the primary language of instruction is German.

GERMN 304. Phonetics of Spoken German
Three lectures and one hour of laboratory.
Prerequisites: German 202 and 205B.
Sounds and intonation of German.

## GERMN 320. German Film (3) [GE]

Two lectures and two hours of activity.
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Masterpieces of German film. Emphasis on social, political, and cultural changes in modern Germany. Taught in English.

## GERMN 340. German Linguistics (3)

Prerequisite: German 301.
German linguistics with focus on varieties of German language to include: history of German, phonetics, phonology, syntax, morphology, semantics, pragmatics, applied linguistics and sociolinguistics.

## GERMN 400. German Studies Through the Media

(3)

Prerequisite: German 300 or 301.
Society and institutions of German-speaking regions through spoken and written texts from the media. Emphasis on topics of importance for business, communications, and German area studies.

## GERMN 430. German Civilization (3)

Prerequisites: German 202 and 205B.
Artistic, intellectual, and cultural movements of the Germanspeaking regions, while building on advanced language skills. May be repeated with new title and content. Maximum credit six units.

## GERMN 495. German Internship (3) $\mathrm{Cr} / \mathrm{NC}$

Prerequisites: Upper division standing in major and consent of instructor.

Practical work experience in a field related to German studies. Work done under joint direction of activity sponsor and instructor. Approved international internships may count towards international experience requirement for major.
GERMN 496. Experimental Topics (1-4)
Prerequisites: German 300 (for literary topics) or 301 (for linguistics topics).

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## GERMN 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)

## GERMN 501. Translation (3)

Prerequisites: German 300 and 301.
Translation of a variety of texts from German to English and English to German.

## GERMN 505. Applied German Linguistics (3)

Prerequisite: German 301 or 304.
Linguistic study of modern German; integration of modern linguistic theory with the language classroom.

## GERMN 520. Modern German Literature

Prerequisites: German 300 and 301.
Major authors and genres since Enlightenment.
GERMN 596. Topics in German Studies (3)
Prerequisites: German 300 and 301 . 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: 619-594-6765
FAX: 619-594-2811

## Faculty

Emeritus: DuBois, Stanford
Chair: Garrett
Professor: Garrett
Lecturers: Anguera, Arnett

## Offered by the Department

Master of Science degree in 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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; Child and Family Development 135; Public Health 101; Psychology 101; and Social Work 110. (21 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of the catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(W)$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Gerontology 350, 360, 370, 400A, 400B, 402, 520, 522; and 12 units selected with approval of the adviser from Child and Family Development 335; Gerontology 496, 499, and 596 (when appropriate); Exercise and Nutritional Sciences 433; Psychology 456; Recreation 580; Social Work 420*; Women's Studies 521

* Prerequisites waived.


## Gerontology Minor

The minor in gerontology consists of a minimum of 18 units selected from Gerontology 101, 350, 360, 370, 400A, 400B, 402, 499, 522, 596; Child and Family Development 496*; Exercise and Nutritional Sciences 433; Recreation 580; Social Work 120, 420; Sociology 496*; and Women's Studies 521.

Additional prerequisites may be required for the courses in the minor.

Courses in the minor may not be counted toward the major or the certificate, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence 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 College of Extended Studies 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 Department of Gerontology is responsible for the coordination of the certificate program in conjunction with the College of Extended Studies. Admission applications may be obtained from the College of Extended Studies. 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 Department of Gerontology.

## Required Courses for the Certificate Program

A minimum of 12 semester units must be selected from the following areas inclusive of the practicum:

## I. Introduction to Gerontology

Gerontology 101. Introduction to Human Aging (3)

## II. Psychological Aspects of Aging

Psychology 350. Abnormal Psychology (3)

## III. Sociological Aspects of Aging

Gerontology 250. Intergenerational Issues and the Elderly (3)
Gerontology 350. Social Policy and Aging (3)

## IV. Practicum

Gerontology 400A or 400B. Practicum in Gerontology (3) (Cr/NC)


## Elective Courses

A minimum of six semester units selected from the following:
Gerontology 360. Minority and Ethnic Aging (3)
Gerontology 370. Images of Aging in Contemporary Society (3)
Gerontology 402. The Aging Network (3)
Gerontology 499. Special Study (1-3)
Gerontology 520. An Inside Look at Aging Programs-Program Analysis (3)
Gerontology 596. Advanced Special Topics in Gerontology (1-4)
Recreation 580. Leisure and the Aging Process (3)
Women's Studies 310. Women in Cross-Cultural Perspective (3)
Women's Studies 521. Life Cycles of Women (3)

## Courses (Gero)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

GERO 101. Introduction to Human Aging (3) [GE] 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.

## GERO 250. Intergenerational Issues and the Elderly (3)

Controversial issues surrounding interpersonal relations between the aged and other age groups.

## GERO 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)

## GERO 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.

## GERO 360. Minority and Ethnic Aging (3) [GE] I

Prerequisite: Gerontology 101 or completion of the General Education requirement in Foundations IIB, Social and Behavioral Sciences required for nonmajors.

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.

## GERO 370. Images of Aging in Contemporary <br> Society (3) [GE] I, II

Prerequisite: Gerontology 101 or completion of the General Education requirement in Foundations IIB, Social and Behavioral Sciences required for nonmajors.

Images of older persons across gender and ethnicity in our society. Influence of films, newspapers, radio, television, books and magazines, and a wide range of advertising mechanisms.

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

Twelve hours of laboratory.
Prerequisites: Gerontology 350, 360, 370.
Integration of theoretical background and practical experience in providing services to elderly. Fieldwork and observation in settings providing services to the elderly. Direct experience in aging projects relevant to their field of interest.

## GERO 402. The Aging Network (3) I

Prerequisite: Three units in gerontology.
Current status of aging services in the community. Evaluation of effectiveness of programs and services to maintain elderly in the community.

## GERO 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.

## GERO 499. Special Study (1-3)

Prerequisite: Consent of department chair.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

## (Also Acceptable for Advanced Degrees)

## GERO 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.

## GERO 522. International Issues on Aging

(3)

Prerequisite: Three units in gerontology.
Socio-economic implications of rapidly growing number and proportion of older people around the world. Comparative study of aging populations in different countries, analysis and evaluation of related policies and programs.
GERO 530. Research Methods and Evaluation (3)
Prerequisites: Course in elementary statistics and satisfaction of the Entry-Level Mathematics requirement. Recommended: Sociology 201.

Research methodology, assessment, and evaluation of gerontology. Basic statistical techniques in evaluating gerontology databases. Methods, statistical procedures, hypothesis testing, evaluation, use of tables and graphs, and use of gerontology databases. SPSS using gerontology databases for instruction.

## GERO 540. Physical Function and Disease Prevention (3)

Prerequisites: One course in gerontology; Public Health 101 or 490B; Psychology 101.

Physical functioning of older persons and diseases related to age changes. Healthy aging, assessments of frailty, risk factors related to diseases of aging, current medical and health promotion interventions directed to risk reduction and healthy aging.

## GERO 596. Advanced Special Topics in Gerontology (1-4)

Advanced selected topics in gerontology. 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 or master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

Greek - Refer to "Classics" in this section of the catalog.
Health Science - Refer to "Public Heath" in this section of the catalog.

## Health and Human Services

OFFICE: Education 154
TELEPHONE: 619-594-6151
FAX: 619-594-7103
http://chhs.sdsu.edu

## Courses (HHS)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

HHS 280. Health Education for Teachers
(1)

Prerequisite: For multiple or single subject teacher candidates.
Topics designated in health framework for California; infusing health topics in the K-12 general curriculum.

## HHS 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.

6'I never did anything worth doing by accident, nor did any of my inventions come by accident; they came by work."
—Thomas A. Edison (1923)


## Hebrew

In the Department of Linguistics and Oriental Languages In the College of Arts and Letters

## Faculty

Emeritus: Bar-Lev
Chair: Kaplan

## Offered by the Department of Linguistics and Oriental Languages

Courses in Hebrew.
Major or minor work in Hebrew is not offered.

## Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Hebrew to fulfill the 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, 200, 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 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 or five college quarters, thus fulfilling the language requirement.

## Courses (hebrw)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## 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.

## HEBRW 100. Hebrew Alphabet (1)

(Selected sections offered as distance education.)
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. Does not satisfy language requirement.
HEBRW 101. Elementary Hebrew I (3) [GE]
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.

## HEBRW 102. Elementary Hebrew II (3) [GE]

Three 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.

## HEBRW 200. Reading Classical Hebrew (1)

Prerequisite: Knowledge of the Hebrew alphabet.
Continuation of Hebrew 100. Reading in Hebrew of short selections from Hebrew Bible and Prayerbook, study of songs, reading of simple stories. Focus on learning Hebrew roots and affixes through readings. Does not satisfy language graduation requirement.

HEBRW 201. Intermediate Hebrew (4) [GE]
Four lectures and one hour of laboratory.
Prerequisites: Hebrew 102 and 200.
Continuation of Hebrew 102. Applications of grammar and reading skills. Additional practice in conversation.

## HEBRW 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.

## HEBRW 330. Hebrew Discourse and Literature (3) [GE]

Prerequisites: Hebrew 201 and completion of the General Education requirement in Foundations II.C., Humanities.

Varieties of Hebrew discourse, including different types of modern discourse, and selected highlights of Hebrew literature throughout the ages, to be read in Hebrew. Use of variety of language modalities, including film, drama, translation, and student reports.

HEBRW 470. Kabbalah as a Symbolic System (1-2)
Prerequisite: Upper division standing.
Concepts of kabbalah in English to include Tree of life and sphirot; masculine and feminine aspects, sex and sexuality; alef-bet of Creation and "meanings" of Hebrew letters. Taught in English. Not open to students with credit in Hebrew 471.

## HEBRW 471. Kabbalah as a Symbolic System (3) [GE]

Prerequisites: Upper division standing and completion of the General Education requirement in Foundations II.C. Humanities.

Concepts of kabbalah in English to include Tree of life and sphirot; masculine and feminine aspects, sex and sexuality; alef-bet of Creation and "meanings" of Hebrew letters. Taught in English. Not open to students with credit in Hebrew 470.

## HEBRW 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.
HEBRW 499. Special Study (1-3) I, II
Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## OFFICE: Arts and Letters 588

TELEPHONE: 619-594-5262
FAX: 619-594-2210
http://www-rohan.sdsu.edu/dept/histweb/dept.html

## Faculty

Emeritus: Bartholomew, Jr., Cheek, Chu, Cox, Cunniff, Davies, DuFault, Dunn, Filner, Flemion, Hamilton, Hanchett, Heinrichs, Heyman, Hoidal, Kushner, McDean, Munter, Norman, Oades, O'Brien, Peterson, Polich, Rader, Schatz, Smith, C., Smith, R., Starr, Stites, Stoddart, Strong, Vanderwood, Vartanian, Webb

## Chair: Ferraro

The Dwight E. Stanford Chair in American Foreign Relations:
Cobbs Hoffman
The Nasatir Professor of Modern Jewish History: Baron
Professors: Baron, Christian, Cobbs Hoffman, Ferraro, Kornfeld
Associate Professors: Colston, Elkind, Kuefler, Wiese
Assistant Professors: Abalahin, Campbell, DeVos, Edgerton-Tarpley, Le, Passananti, Pollard, Putman, Yeh
Lecturers: Beasley, Castleman, Crawford, Guthrie, Hay, Kenway, Lide, Mahdavi-Izadi, McKanna, Nobiletti, Putko, Roy, Weeks, White, Ysursa

## Offered by the Department

Master of Arts degree in history.
Major in history with the B.A. degree in liberal arts and sciences. Minor in history.

## 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 holder of the Chair is Elizabeth Cobbs Hoffman, a distinguished scholar-teacher who is an expert on economic and political relations between the United States and the Third World, and on the history of the Cold War.

## 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 Major

History is the study of humanity's recorded past, encompassing almost all aspects of human activity and behavior. The arts, sciences, technology, economics, politics, war, ideology, and social attitudes all constitute the subject of history.

The purpose of history education is not primarily the accumulation of information on particular events, regions, or cultures, but rather the development of knowledge and skills to collect and sift historical evidence, analyze and interpret historical behavior, and apply historical understanding to self-transformation and civic participation. Study of the ideas, attitudes, and actions of people in the past sharpens a person's own sense of values, provides a context for present decision making, and cultivates a more compassionate spirit toward peoples whose way of life may be different from one's own.

In the College of Arts and Letters

The training in basic skills and the broad range of knowledge students receive in history courses prepare history majors for a wide variety of careers in law, government, politics, journalism, publishing, private charities and foundations, public history, business, and science. Teaching at the primary to university levels also offers opportunity for history majors who continue their education at the graduate level.

## Impacted Program

The history major is an impacted program. To be admitted to the history major, students must meet the following criteria:
a. Complete with a minimum GPA of 2.20 and a grade of C or higher: History 100, 101, and six units selected from History 105, 106, 109, 110, 115, or 116. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 60 transferable semester units;
c. Have a cumulative GPA of 2.40 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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. History 100, 101, and six units selected from History 105, 106, 109, 110, 115, or 116. (12 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$ and must be completed with a minimum GPA of 2.20 and a grade of $C$ or higher in each class.

Language Requirement. Students will be required to successfully complete the third college semester or fifth college quarter or four years of high school in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Students must have fulfilled the Writing Proficiency Assessment with a score of 8 or above before taking History 400W and earn a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units in history to include History 400W; three units from History 450W, 451, or 452, and a minimum of nine units in field (a) Thematic, Comparative, and Interdisciplinary History; six units in field (b) The Ancient through Early Modern World; and nine units in field (c) The Modern World. At least nine upper division units must be at the 500-level. Up to six units from other departments may be applied to the history major upon written approval of the undergraduate adviser. Up to six units of study abroad history courses may be applied to the history major upon prior written approval of the undergraduate adviser. 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 in residence 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 20 percent of senior history majors and who have successfully completed History 400W. Interested students should consult the undergraduate adviser in the History department.

## Courses (HIST)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## HIST 100. World History (3) [GE]

Growth of civilizations and interrelationships of peoples of Europe, Asia, Africa, and the Americas to 1500.
HIST 101. World History (3) [GE]
Modern history from a global perspective, 1500 to present.

## HIST 105. Western Civilization to the Seventeenth Century (3) [GE]

Development of Mediterranean and European cultures, thought, and institutions from ancient times to the seventeenth century. Not open to students with credit in History 305A.

## HIST 106. Western Civilization Since the Sixteenth Century (3) [GE]

Development of European cultures, thought, and institutions from sixteenth century to present. Not open to students with credit in History 305B.
HIST 109. American History to Reconstruction (3) [AI]
United States history from pre-colonial societies to Reconstruction. Contact of cultures, patterns of settlement, contests over racial, ethnic, religious, class, gender, regional, and national identities and institutions. Satisfies the American Institutions requirement in American history and United States Constitution.

## HIST 110. American History Since the Civil War (3) [AI]

United States history since the Civil War. Development of U.S. economy, urbanization, social and cultural change, emergence of U.S. as a world power, struggles over American identities and institutions. Satisfies the American Institutions requirement in American history and California government.

## HIST 115. Comparative History of the Americas (3) [AI]

Western hemisphere from ancient times to early national period, with focus on interactions among European, American Indian, and African cultures, institutions, and traditions. Ancient American societies, European colonial systems, creation of new nations. Satisfies the American Institutions requirement in American history and United States Constitution.

## HIST 116. Comparative History of the Americas (3) [AI]

Nations and cultures of the Western hemisphere since early national period, with focus on interactions among European, American Indian, and African cultures, institutions, and traditions. Satisfies the American Institutions requirement in American history and California government.

## HIST 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.

## HIST 299. Special Study (3)

Prerequisite: Consent of department chair and instructor. Individual study.

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

## HIST 400W. Historian's Craft (3) I, II

Prerequisites: Twelve units in history including History 100, 101, and six units selected from History 105, 106, 109, 110, 115, or 116. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); be a declared history major; and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

Theory and practice of history through writing. Historical theory, use of evidence, research methods, bibliography, historiography, and historical interpretation in some field of history.

## HIST 418. History of Britain (3)

Prerequisite: Upper division standing.
Survey of British history from its origins to the contemporary age. Emphasis on political institutions, religion, society, economy, the arts. (Formerly numbered History 308.)
HIST 450W. The Writing of History (3) I, II
Prerequisites: History 400W with a grade of C (2.0) or better and a minimum of 15 upper division units in history. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

Historical methods and research in selected aspects of history. Includes a major research paper based on primary sources.

## HIST 451. Historians and the Public (3)

Prerequisites: History 400W with a Grade of C (2.0) or better and a minimum of 15 upper division units in history.

Analysis and practice of ways historians preserve, research, and interpret the past for public audiences. Topics include historic preservation projects, parks, museums, archives, and living history programs. Includes a major analytical essay or public history project.

## HIST 452. Advanced Internship in Applied History (3)

Prerequisites: History 400W with a Grade of C (2.0) or better and a minimum of 15 upper division units in history.

Supervised field placement in applied history: campus and community archives, museums, government, and other historical agencies. Emphasis on critical analysis, writing, and historiography.

## HIST 490. Senior Honors Thesis (3) I, II

Prerequisite: History 400W; 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.

## HIST 499. Special Study (1-3) I, II

Prerequisite: Consent of department chair and instructor.
Individual study. Maximum credit six units.

## Field (a). Thematic, Comparative, and Interdisciplinary History <br> UPPER DIVISION COURSES (Intended for Undergraduates)

## HIST 402. History of Childhood (3) [GE]

Prerequisites: Upper division standing. Completion of the General Education requirement in Foundations II.C., Humanities required.

Comparative perspective on the history of infancy and early childhood; childrearing theories and practices; adolescence; education; play; work in slavery, servitude, apprenticeship, and families; immigration and migration; domestic violence and family law; and construction of gender and identity.

## HIST 406. History of Sexuality (3) [GE]

Prerequisite: Upper division standing and completion of General Education requirements in Foundations II.C. Humanities required.

Comparative and historical approach to changing conceptions of the body, regulation of sexual practices, and emergence of sexual identities. Historical perspectives on body parts, sexual practices, and sexual celebrities invested with social and political significance.

## HIST 422. Southeast Asian and Filipino Experience in America (3) [GE]

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.

## HIST 435. History Through Film (3)

Critical analysis of selected historical problems, eras, and events, using film as the principal historical document. See Class Schedule for specific content. Maximum credit six units.

## HIST 436. Modern Jewish History in Feature Films (3) [GE] I

Two lectures and two hours of activity.
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors

Representations of twentieth century Jewish history in feature films. Topics include persecutions of Jews in Czarist Russia and Nazi occupied Europe, social mobility in the United States and national sovereignty in Israel.

## HIST 440. The Holocaust and Western Civilization (3) [GE] 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 nonJews in the Western world.

## HIST 441. Environmental Problems in Historical

 Perspective (3) [GE]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.

## HIST 442B. People Out of Our Past (3-3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

A biographical approach to American history. 1865 to present; Mark Twain, Jane Addams, Emma Goldman, Woodrow Wilson, Henry Ford, Eleanor Roosevelt, Martin Luther King, Jr., Bob Dylan, Richard Nixon.
HIST 470. Topics in World History (3)
Prerequisite: Upper division standing.
Major historical problems, themes, or topics from global chronological and geographical perspectives of world history to include frontiers, food and famine, violence and warfare, science, religion and magic, the Atlantic world, medieval era. See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.

## HIST 486. World War II (3)

Causes of World War II, its course, and its legacy for today's world.

## HIST 488. Modern Jewish History (3) [GE] 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.

HIST 495. Internship in Applied History (3)
Nine to ten hours.
Prerequisites: Nine units in history. History 451 for some students (see instructor).

Supervised field placement of students in campus and community archives, historical museums, and other historical agencies. Practical experiences related to studies within history curriculum.

## HIST 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. Thematic, Comparative, and Interdisciplinary History
B. The Ancient Through Early Modern World
C. The Modern World

HIST 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)

## HIST 500. Topics in Ancient History (3)

Prerequisite: Upper division standing.
Variable topics in ancient history throughout the world may include: Women in Greek and Roman societies, magic in the GrecoRoman World, Silk Roads, and pre-contact Mesoamerica. See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.

## HIST 527. The Holocaust in Feature Films <br> (3) II

(Same course as European Studies 527.)
Two lectures and two hours of activity.
Prerequisite: Upper division or graduate standing.
Depiction of the Nazi policy of destroying European Jewry and its impact on the perpetrators, bystanders, victims, and the post-war world in feature films.

## HIST 580. Topics in the History of War and Violence

Prerequisite: Upper division standing.
History of war and violence may include: Violence in Africa, modern genocide, trauma and modern East Asia, social suffering in historical perspective. See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.

HIST 581. Topics in Urban History (3)
Prerequisite: Upper division standing.
Variable topics in urban history may include: The city in United States history, Chinatowns, suburbs and suburbanization, urban politics. See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.

## HIST 582. Topics in Social and Cultural History

Prerequisite: Upper division standing.
Variable topics in the social and cultural history may include: Ritual in early modern Europe, radicals ad revolutionaries, intellectuals and society, families in former times, and American popular culture. See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.

## HIST 583. Topics in History of Gender and Sexuality

(3)

Prerequisite: Upper division standing.
Variable topics in history of gender and sexuality may include: Gay and Lesbian history, Asian American gender and sexuality, genders in Latin America. See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.

## HIST 584. Topics in Environmental History

(3)

Prerequisite: Upper division standing
Variable topics in environmental history may include: Press, politics, environment, world environmental history, water and society. See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.

## HIST 596. Selected Studies in History (1-4)

Topics in 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

## Field (b). The Ancient Through Early Modern World UPPER DIVISION COURSES (Intended for Undergraduates)

HIST 407. Early Modern Europe (3) [GE]
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Early modern Europe from Renaissance to French Revolution. Social, cultural, economic, political, and intellectual trends, development of nation-states, and sources of continental conflict.

## HIST 409. United States History for Teachers (3) [AI]

Prerequisites: Upper division standing and Writing Proficiency Assessment with a score of 8 or above or Rhetoric and Writing Studies 280 or 281.

United States history from pre-colonial period through Reconstruction with emphasis on historiography, bibliography, and relationship between philosophy of history and teaching. Satisfies the American Institutions requirement in American history and United States constitution. Required of social science single subject majors. Not open to students with credit in History 310A or 413 or liberal studies majors.

HIST 411. World History for Teachers (3)
Prerequisites: Upper division standing, Writing Proficiency Assessment with a score of 8 or above, or Rhetoric and Writing Studies 280 or 281, and at least three units selected from History 100, 101, $105,106,115$, or 116.

Topics in world history from paleolithic times to sixteenth century emphasizing comparative analysis, interrelations among societies, and large-scale patterns of change. Various approaches to conceptualizing and teaching world history. Intended primarily for students in teacher preparation programs.

## HIST 413. United States History for Teachers for Liberal Studies Majors (3)

Prerequisites: Upper division standing and Writing Proficiency Assessment with a score of 8 or above or Rhetoric and Writing Studies 280 or 281. Limited to liberal studies majors.

United States history from pre-colonial period to World War I, incorporating California with emphasis on historiography and relationship between philosophy of history and teaching. Satisfies the American Institutions requirement in American history and United States constitution. Required of liberal studies majors. Not open to students with credit in History 409.

## HIST 415. Pre-Contact and Colonial Latin America (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Indigenous and colonial history of Latin America, pre-contact through early national period.

## HIST 420. Asia's Dynamic Traditions (3) [GE]

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.

## HIST 473. Middle Eastern History from the Advent of Islam to 1500 (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Middle Eastern history, 600 C.E. to 1500 C.E.; spread of Islam through rise of Ottoman Empire.
HIST 475. History of Africa to the Nineteenth Century (3) [GE]
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

History of precolonial Africa north and south of the Sahara.

## HIST 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. Thematic, Comparative, and Interdisciplinary History
B. The Ancient Through Early Modern World
C. The Modern World

## HIST 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)
HIST 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.

## HIST 502. Ancient Greece (3)

Greek history from prehistoric period through Age of Alexander the Great. Emphasis on political, social, cultural and institutional developments and historiography. Secondary attention to military, economic, and religious topics.
HIST 503. Ancient Rome (3)
Roman history from origins of Rome to fall of the Empire. Emphasis on political, social, cultural and institutional developments and historiography. Secondary attention to military, economic, and religious topics.

## HIST 504. The Early Middle Ages (3)

Europe and Mediterranean 300-1100 C.E. through various approaches: political, economic, social, and cultural. Collapse of Roman Empire, transformation of classical culture and regions that claimed its heritage: Christian kingdoms of western Europe, Byzantine, and Muslim Arab empires.

## HIST 505. The Later Middle Ages (3)

Europe and the Mediterranean 1100-1450 C.E. through various approaches: political, economic, social, and cultural. Development of Christian kingdoms of western Europe and relationship to Byzantine empire, Muslim Arab and Turkish states.

## HIST 506. The Renaissance (3)

Intellectual, artistic, social, and economic transformation in Europe from fourteenth to seventeenth centuries.

## HIST 507. The Reformation (3)

Continental Europe, 1500-1648. Split of Christendom; political and intellectual dissent; social fabric of family life; relationship between gender, class, and power; cultural stratification of European society.

## HIST 513. Early Scandinavia (3)

The formation and development of the Scandinavian kingdoms from the Viking Age to the end of the Napoleonic Wars. (Formerly numbered History 513A.)

## HIST 528. Social History of Early Modern Europe (3)

Historical survey of European society emphasizing changes in the family, health, diet, standard of living, urbanism, crime, migration, and literacy, from 1350 to beginning of Industrial Revolution.

## HIST 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.

## HIST 532. Topics in Early American History (3)

Prerequisites: Upper division standing and three units in history at the college level.

Variable topics in history of colonial America and the early republic. Possible topics include: Women and the Family; Race, Class and Labor; American Revolution; Religion and Politics; Immigrants' Experiences. See Class Schedule for topic. May be repeated with new content. Maximum credit six units.

## HIST 550. Colonial Mexico (3)

Prerequisite: History 115, 116, 415, or 416.
Social history of Mexico from pre-contact through early national period using primary and secondary sources. Processes of social and cultural negotiation involving gender, religion, environment, medicine, and urban experience.

## HIST 563. Southeast Asia to 1800 (3)

Cultural traditions of Southeast Asian people. Examines nature of the state, interstate relations, evolution of indigenous institutions, and influences of India, China, Islam, and the West to end of the eighteenth century.

## HIST 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.

## Field (c). The Modern World <br> UPPER DIVISION COURSES <br> (Intended for Undergraduates)

## HIST 408. Modern Europe (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Modern Europe from French Revolution to present. Social, cultural, economic, political, and intellectual trends, development of nationstates, and sources of continental conflict.

## HIST 410. United States History for Teachers (3) [AI]

Prerequisites: Upper division standing and Writing Proficiency Assessment with a score of 8 or above or Rhetoric and Writing Studies 280 or 281 .

United States history since Civil War with emphasis on historiography, bibliography, and relationship between philosophy of history and teaching. Satisfies the American Institutions requirement in American history and California government. Not open to students with credit in History 310B.

## HIST 412. Modern World History for Teachers (3)

Prerequisites: Upper division standing, Writing Proficiency Assessment with a score of 8 or above, or Rhetoric and Writing Studies 280 or 281, and at least three units selected from History 100, 101, 105, 106, 115, 116.

Topics in world history from the beginning of the sixteenth century to the present emphasizing world-scale patterns of change and cross-cultural comparisons. Various approaches to conceptualizing and teaching world history. Intended primarily for students preparing to teach history in secondary schools.

## HIST 416. Modern Latin America (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors

History of Latin America, early national period to present.

## HIST 421. Asia's Emerging Nations (3) [GE]

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.

## HIST 445. California History (3)

California history from pre-colonial societies to present. Emphasis on early colonial societies, economy, environment, politics, race, gender, and California's place in popular culture. Not open to students with credit in History 444 and 445 if both courses were taken prior to fall 2004.

HIST 474. The Middle East Since 1500 (3) [GE]
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors

Middle Eastern history since 1500 C.E.; Islamic empires, European colonialism, nationalism, and modernization.

## HIST 476. History of Africa Since the Nineteenth Century (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors

History of colonial and post colonial Africa nineteenth century to the present.

## HIST 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. Thematic, Comparative, and Interdisciplinary History
B. The Ancient Through Early Modern World
C. The Modern World

## HIST 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)
## HIST 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.

HIST 512B. The Age of Dictators and Contemporary Europe (3)
Europe in the age of dictatorship, world war, decline, and recovery.

## HIST 515. Globalization in Historical Perspective: 1500 to the Present (3) I

Prerequisite: Upper division standing.
Global movements of people, goods, and capital since 1500. Historical trends in labor and productivity, relationship of policy to economic growth, convergence and divergence, and impact of economic globalization on human welfare and the environment.

## HIST 518. Russia and the Soviet Union (3)

Political, social, and economic development of Russia in Europe and Asia. (Formerly numbered History 518B.)

HIST 533A. The Jacksonian Era (3)
Territorial expansion, democratic politics, revivalism, and the slavery controversy.

## HIST 533B. Civil War and Reconstruction (3)

The Civil War and Reconstruction, emphasizing political affairs and the role of Lincoln.

## HIST 535. The Age of Roosevelt

(3)

The United States in Depression, War, and Cold War. (Formerly numbered History 535B.)

## HIST 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.

## HIST 539. Topics in the History of the American West (3)

Prerequisites: Upper division standing and three units of history at the college level.

Selected topics in history of American West such as Westward movement; Southwest borderlands; gender and the frontier; new western history. May be repeated with new content. Maximum credit six units.
HIST 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.
HIST 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, American withdrawal, impact of war on Southeast Asia and the United States.

HIST 544A. Early American Foreign Relations (3)
Development of American foreign relations from Colonial Period to the Spanish-American-Filipino War.
HIST 544B. Modern American Foreign Relations (3)
Development of American foreign relations since 1900.
HIST 545. Constitutional History of the United States (3)
Development of American constitutional ideals and institutions from colonial period to the present. Examines historical context of significant legal issues and constitutional cases. (Formerly numbered History 545A and 545B.)

## HIST 551. Modern Mexico (3)

Prerequisite: History 115, 116, 415, or 416.
Social history of Mexico since early national period using primary and secondary sources. Processes of social and cultural negotiation involving gender, religion, environment, medicine, and urban experience.

## HIST 552. Brazil (3)

Survey of history of Brazil from Portuguese backgrounds to present. Brazil as a tropical society. Recommended for students minoring in Portuguese.
HIST 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.

## HIST 564. Southeast Asia in the Modern World (3)

Southeast Asian history since 1800 with attention to colonialism, sociocultural change, Chinese diaspora, nationalism and independence, and economic development. Considers transnational comparisons among Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam.

## HIST 567. China in Revolution (3)

China's history during the tumultuous nineteenth and twentieth centuries. China's forced encounter with Western imperialism, rural, and urban social movements. Impact of Mao's Revolution on everyday life in China, successes, limitations of China's recent reform policies.

## HIST 570. Japan in the Modern World (3)

Japan's emergence as a modern state since the nineteenth century, and ongoing struggle to redefine Japanese identity. Examines Japan's engagement with modernity as seen through changes in political discourse, gender relations, international relations, intellectual trends, and economic development.

## HIST 574. Arab-Israeli Relations, Past and Present (3)

Arab-Israeli conflict and diplomacy over Palestine from perspectives of Zionism, Arab nationalism, and Great Power relations from nineteenth century to present.
HIST 585. Topics in the History of the Sixties (3)
Prerequisite: Upper division standing.
Variable topics in the history of the 1960s may include: America in the 1960s, Africa in the 1960s, politics and protests in 1960s, Europe in the 1960s. See Class Schedule for specific topic. May be repeated with new content. Maximum credit six units.

GRADUATE COURSES
Refer to the Graduate Bulletin.

# Hospitality and Tourism Management 

## OFFICE: Professional Studies and Fine Arts 436 <br> TELEPHONE: 619-594-4964

FAX: 619-594-4443
http://www.sdsu.edu/htm

## Faculty

Hospitality and Tourism Management is administered by the Hospitality and Tourism Management Program Committee. The program draws on courses offered by the faculty in the following areas: Accountancy, Exercise and Nutritional Sciences, Finance, Hospitality and Tourism Management, Information and Decision Systems, Management, Marketing, Recreation, Parks and Tourism.
Director: Carl Winston (Professional Studies and Fine Arts, General) Internship and Placement Director: Brian Blake
Resource Manager:Paula Bloomer
Committee: Baker (Marketing), Capettini (Accountancy),
Chung-Herrera (Management), LaMaster (Exercise and
Nutritional Sciences), Lamke (Recreation, Parks and Tourism),
Raafat (Information and Decision Systems), Sasidharan
(Recreation, Parks and Tourism), Testa (Recreation, Parks and Tourism)

## Offered by Hospitality and Tourism Management

Major in hospitality and tourism management with the B.S. degree in applied arts and sciences.

Emphasis in hotel operations and management.
Emphasis in restaurant operations and management.
Emphasis in global tourism management.
Emphasis in events, conventions, and attractions management.

## Admission to the Major

The hospitality and tourism management (HTM) major is a collaborative interdisciplinary degree involving the College of Business Administration and the College of Professional Studies and Fine Arts. To be admitted to an HTM major emphasis, students must meet the following criteria:
a. Complete with a grade of C or higher: Accountancy 201; Finance 240; Information and Decision Systems 180 and 290; Economics 101 and 102; Hospitality and Tourism Management 201 and 223; Mathematics 120 (or other approved calculus course); and either Statistics 119 or Economics 201. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 60 transferable semester units;
c. Have a cumulative GPA of 3.0;
d. Students who meet all requirements except the GPA may request to be placed on the waiting list. Students on the waiting list will be admitted on a case-by-case basis formulated around the program's exception policy. Contact the Hospitality and Tourism Management Program Office (PSFA-436) 619-5944964, for more information.
To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## The Major

Hospitality and tourism management is an interdisciplinary major which culminates in a Bachelor of Science degree offered jointly by the College of Business Administration, a member of the American Assembly of Collegiate Schools of Business, and the College of Professional Studies and Fine Arts. This program provides students with a solid undergraduate program emphasizing basic business management principles and their specific application to the hospitality and tourism industry and its components that make up the industry. The program integrates a significant number of courses from diverse disciplines into a comprehensive theoretical and applied program necessary for success in the hospitality and tourism professions. The program is directed at management positions in the industry, positions that require a broad understanding of management and its application to the businesses and organizations that flourish in this sector of the international, national, state, and local economies.

Students select one of four emphasis areas for in-depth study; Hotel Operations and Management, Restaurant Operations and Management, Global Tourism Management or Events, Conventions, and Attractions Management. With a solid core of business management courses and theoretical and applied study of the broad hospitality and tourism industry, students are educated to move readily into management positions in one of the state's, nation's, and world's fastest growing economic sectors. The hotel and restaurant emphases will prepare managers to effectively administer businesses that provide lodging and food services to business and leisure travelers and tourists. The global tourism management emphasis will educate graduates to work in the United States and abroad in developing and managing tourism enterprises that are economically viable as well as consistent with resources available to sustain the industry within regions and locales. And lastly, the emphasis in events, conventions, and attractions management is aimed at preparing individuals to successfully manage destination based agencies that attract and entertain guests in a host region (convention centers, bureaus, festivals, sporting events, etc.).

## Internships

A significant portion of the student's educational program is dedicated to community-based learning components termed internships. Each student must complete two, 300+ hour internships in hospitality and tourism businesses. These experiential learning components enable students to apply their classroom education to real world experiences in actual businesses. The HTM Program has purposely entered into partnerships with San Diego's finest hospitality and tourism enterprises to provide students with specialized facilities and experiences that complete a well-rounded and comprehensive educational experience for graduation and entry into this rewarding profession.

## Advising

All students admitted to the university with a declared major in hospitality and tourism management are required to attend an advising meeting with the undergraduate advisers every semester.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Hospitality and Tourism Management Major

## With the B.S. Degree in Applied Arts and Sciences (Major Code: 05081)

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. Hospitality and Tourism Management majors may not complete a minor in the College of Business Administration. Preparation for the major courses may not be taken $\mathrm{Cr} /$ NC; the minimum grade in each course must be a C.

## Emphasis in Hotel Operations and Management

Preparation for the Major. Hospitality and Tourism Management 201, 223; Accountancy 201; Economics 101, 102; Finance 240; Information and Decision Systems 180, 290; Mathematics 120 or 150; and Statistics 119 or Economics 201. (30-31 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$. The minimum grade in each class is $C$ or higher.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Recreation 396 W with a grade of $C$ (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 47 upper division units to include Hospitality and Tourism Management 301, 398, 421, 425, 427, 450, 460, 490, 498; Finance 323; Information and Decision Systems 302; Management 350, 352; Marketing 370; Recreation 404, 470.

## Emphasis in Restaurant Operations and Management

Preparation for the Major. Hospitality and Tourism Management 201, 223; Accountancy 201; Economics 101, 102; Finance 240; Information and Decision Systems 180, 290; Mathematics 120 or 150; and Statistics 119 or Economics 201. (30-31 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$. The minimum grade in each class is $C$ or higher.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Recreation 396 W with a grade of $C$ (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 47 upper division units to include Hospitality and Tourism Management 301, 398, 421, 425, 450, 460, 490, 498; Finance 323; Information and Decision Systems 302; Management 350, 352; Marketing 370; Nutrition 303*, 303L*; Recreation 404, 470.

* Prerequisites waived for this course.


## Emphasis in Global Tourism Management

No new students will be admitted to this emphasis.
Preparation for the Major. Hospitality and Tourism Management 201, 223; Accountancy 201; Economics 101, 102; Finance 240; Information and Decision Systems 180, 290; Mathematics 120 or 150; and Statistics 119 or Economics 201. (30-31 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$. The minimum grade in each class is $C$ or higher.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Recreation 396W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 47 upper division units to include Hospitality and Tourism Management 301, 398, 411, 450, 460, 490, 498; Communication 371 or Management 357; Finance 323; Information and Decision Systems 302; Management 350, 352; Marketing 370; Recreation 404, 470, and 477 or Hospitality and Tourism Management 413.

## Emphasis in Events, Conventions, and Attractions Management

Preparation for the Major. Hospitality and Tourism Management 201, 223; Accountancy 201; Economics 101, 102; Finance 240; Information and Decision Systems 180, 290; Mathematics 120 or 150; and Statistics 119 or Economics 201. (30-31 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$. The minimum grade in each class is $C$ or higher.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Recreation 396 W with a grade of $C$ (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 47 upper division units to include Hospitality and Tourism Management 301, 398, 431, 433 or 435, 450, 460, 490, 498; Finance 323; Information and Decision Systems 302; Management 350, 352; Marketing 370; Recreation 404, 470, 475.

## Courses (HTM)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## HTM 201. Introduction to Hospitality and Tourism Management (3)

Hospitality and tourism industry with focus on basic management theories and principles as they apply to hospitality and tourism; basic structure, organization, and management of industry components and the services/products they deliver.

HTM 223. Hospitality Managerial Accounting and Controls (3)
Prerequisites: Hospitality and Tourism Management 201 and Accountancy 201.

Utilization of accounting information in decision-making, planning, directing, and controlling in hospitality and tourism management. Integrates areas of managerial accounting and controls with applications in hospitality industry. Not open to students with credit in Accountancy 202.

## HTM 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 <br> (Intended for Undergraduates)

HTM 301. Service Leadership Development (2)
One lecture and two hours of activity.
Prerequisite: Hospitality and Tourism Management 201 and upper division major in hospitality and tourism management.

Service leadership theory and development in hospitality and tourism industry. Application of business models and industry metrics with focus on individual assessment and development of leadership competencies.

## HTM 398. Internship I in Hospitality and Tourism (3) Cr/NC

Prerequisites: Hospitality and Tourism Management 301 and consent of internship coordinator.

Entry level experience in a hotel, restaurant, or tourism agency at a university approved site. Minimum 300 hours of quality work at agency required during semester and completion of agency-based project. Note: Only students who have been approved for placement by internship coordinator may enroll in this course.

## HTM 411. Global Tourism Issues (3)

Prerequisite: Hospitality and Tourism Management 301.
Global perspectives of tourism development with emphasis on natural resource characteristics, their sustainability to generating tourist flow, concepts of ecotourism, adventure travel, visitor safety and security, and minimal impact, including economic, cultural, and sociopsychological factors.

## HTM 413. Cultural Tourism (3)

Two lectures and two hours of activity.
Prerequisite: Hospitality and Tourism Management 301.
Relationship and effect of culture on travel and tourism experiences and impact and effect of tourism on cultures. Heritage tourism, travel globalization, cross-cultural understanding, and cultural resource attractions.

## HTM 421. Restaurant Development and Operations

Two lectures and three hours of laboratory.
Prerequisite: Hospitality and Tourism Management 301.
Restaurant and food service principles to operations of casual and fine dining restaurants with emphasis on cost/volume/profit relationships, forecasting demand and market share, market niche/positioning, sanitation and safety, scheduling, quality management, customer service, technology, and ambience/environment.

HTM 425. Property Management in Hospitality and Tourism
Prerequisite: Hospitality and Tourism Management 301.
Development, planning, and maintenance of hospitality facilities. Real estate economics, income generation, lease and management contracts, building operations, project development sequencing, conceptual and space planning, financing, asset management, industry practices, renovation, and public relations.

## HTM 427. Hotel Operations and Management

(3)

Two lectures and two hours of activity.
Prerequisite: Hospitality and Tourism Management 301
Hotel management and operations to include room reservations, housekeeping, front desk management, concierge, sanitation, safety, security, and bellstand. Revenue management, forecasting, measuring performance, transient versus group displacement, service quality, pricing and inventory management, ethics.
HTM 431. Convention and Meeting Management (3)
Two lectures and two hours of activity.
Prerequisite: Hospitality and Tourism Management 301.
Conference, convention, and meeting industry. Planning, developing, marketing, and implementing meeting and convention services with emphasis on staffing, budgeting, and logistics.

## HTM 433. Destination Management Services (3)

Prerequisite: Hospitality and Tourism Management 431.
Role of convention and visitors bureaus and destination management companies in attracting visitors to an area and providing services at a destination including economic impact of visitor markets, incentive travel, marketing techniques, structure, and governance of businesses and services.
HTM 435. Sporting Events and Festival Management (3)
Prerequisite: Hospitality and Tourism Management 431.
Organization and administration of attraction-based events focusing on scheduling, financing, budgeting and revenue distribution, logistics, planning techniques, marketing, contracts, and staging considerations.

## HTM 450. Venture and Entrepreneurial Management in

 Hospitality and Tourism (3)Prerequisites: Hospitality and Tourism Management 301, Finance 323, Information and Decision Systems 302, Management 350, and Marketing 370.

Initiating, expanding, purchasing, and consolidating hospitality and tourism businesses; examination of entrepreneurial approach including concepts, theories, techniques, and practices of managerial innovation/implementation; analysis of entrepreneurial skills.

HTM 460. Legal and Policy Issues in Hospitality and Tourism
(3)

Prerequisite: Hospitality and Tourism Management 301.
The law as it relates to hospitality and tourism with emphasis on legal/policy matters dealing with disabled and accessibility, consumer issues, safety and risk management, discrimination, business regulation, e-commerce, and ethical practices in the industry.

HTM 490. Strategic Management in Hospitality and Tourism (3)
Prerequisites: Hospitality and Tourism Management 450 and Marketing 370.

Problems and issues of strategic planning in hospitality and tourism businesses including methods, techniques, and models used to identify strategic issues and generate future-oriented action plans to implement change.

## HTM 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.

## HTM 498. Internship II in Hospitality and Tourism (3) Cr/NC

Prerequisites: Hospitality and Tourism Management 398 and Management 350, 352.

Advanced experience in a hotel, restaurant, or tourism agency in student's chosen emphasis at a university approved site. Minimum of 300 hours of quality work at agency required during semester in addition to completion of agency-based project.
HTM 499. Special Study (1-3) I, II
Prerequisite: Consent of special study adviser.
Individual study. Maximum credit six units.

# Humanities 

## In the College of Arts and Letters

## Faculty

Emeritus: Cutter, Eisner, Genovese
Chair: Genovese
Professor: Skwara

## Offered by the Department of <br> Classics and Humanities

Major in humanities with the B.A. degree in liberal arts and sciences.
Emphasis in European humanities.
Minor in humanities.

## The Major

The humanities comprise all uniquely human accomplishments. Founded in history, they are the artistic and intellectual traditions of civilized peoples, namely: language, literature, philosophy, religion, and the arts. The goal of the humanities major is an interdisciplinary understanding of peoples and their times through accomplishments that convey best what they value most. In short, humanities shows us what being civilized amounts to, and by directing us to the meaning and worth of life, it helps us to create and enjoy a life of our own.

Majors in humanities may choose a general course of studies that allows for a balance between Western and non-Western civilization or they may emphasize European civilization, which takes its start with the Greeks. They all have at their disposal the Burnett Classics Seminar Room with its library and media resources. In addition to close academic advising and fellowship in a small department with diverse interests, they culminate their studies with a senior seminar.

With a background in critical analysis and with an appreciation of history, ideas, and the arts, a graduate in humanities might find opportunities in communication, diplomacy, or commerce, as a cultural consultant, an editor or writer, an arts critic, a travel consultant, or a museum curator. Some of these careers, as well as teaching or research, will require study beyond the bachelor's degree, but the broad, integrated humanities program is designed for success in many fields.

## Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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."

A minor is not required with this major.
During their last semester, all seniors majoring in Humanities shall submit to the department a portfolio of their scholarly work.

## General Humanities Program

Preparation for the Major. Humanities 101; History 100-101; and three units from Classics 140, Comparative Literature 270A, 270B, English 220, Humanities 140, Philosophy 103, Religious Studies 101, or Women's Studies 102. (12 units)

Language Requirement. (Select one, 13-28 units)
Arabic 101, 102, 201, 202; and one four-unit upper division course taught in the language. (20 units)
Chinese 101, 102, 201, 202; and one three-unit upper division course taught in the language. (23 units)
French 100A, 100B, 201, 210, 220, 221; and one three-unit upper division course taught in the language. (25 units)
German 100A, 100B, 202, 205A, 205B; and one three-unit upper division course taught in the language. (24 units)
Greek: Either Classics 101G-202G or 250G; and Classics 303G-304G. (14-16 units)
Hebrew 101, 102, 200, 201, 330. (14 units)
Italian 100A, 100B, 201, 210; and one three-unit upper division course taught in the language. (19 units)
Japanese 111, 112, 211, 212; and one four-unit upper division course taught in the language. (28 units)
Latin: Classics 101L-202L or 250L; and Classics 303L-304L. (14-16 units) Portuguese 101, 201, 301, 401. (16 units)
Russian 100A, 100B, 200A, 200B; and one three-unit upper division course taught in the language. (23 units)
Spanish 101, 102, 103, 202, 211, 212; and Spanish 301 or 302. (25 units)
See foreign language departments for equivalents. This fulfills language degree requirement for the B.A. degree in Liberal Arts and Sciences.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508 W or Rhetoric and Writing Studies 305 W or 500 W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Humanities 460, 490; Asian Studies 458; 12 units from Classics 340, Humanities 401, 402, 403, 404; nine units from Art (art history), Classics, Comparative Literature, English, History, Humanities, Music 351A, 351B, 351D, 592, Philosophy, Religious Studies, Theatre 460A, 460B, or Women's Studies, with no more than three units in any discipline (at least three units must be taken in non-Western content; courses in Art, Comparative Literature, English, History, Philosophy, Religious Studies, or Women's Studies may be taken only with prior permission of major adviser).

Master Plan. A master plan of the courses taken to fulfill the major must be approved by the humanities undergraduate adviser and filed with the Office of Advising and Evaluations.

## Emphasis in European Humanities

Preparation for the Major. Humanities 101; History 105-106; and three units from Comparative Literature 270A, 270B, Humanities 140, Philosophy 103, Religious Studies 101, or Women's Studies 102. (12 units)

Language Requirement. (Select one, 13-25 units)
French 100A, 100B, 201, 210, 220, 221; and one three-unit upper division course taught in the language. (25 units)
German 100A, 100B, 202, 205A, 205B; and one three-unit upper division course taught in the language. (24 units)
Greek: Either Classics 101G-202G or 250G; and Classics 303G-304G. (14-16 units)
Italian 100A, 100B, 201, 210; and one three-unit upper division course taught in the language. (19 units)
Latin: Classics 101L-202L or 250L; and Classics 303L-304L. (14-16 units)
Portuguese 101, 201, 301, 401. (16 units)
Russian 100A, 100B, 200A, 200B; and one three-unit upper division course taught in the language. (23 units)
Spanish 101, 102, 103, 202, 211, 212; and Spanish 301 or 302 . (25 units) See foreign language departments for equivalents. This fulfills language degree requirement for the B.A. degree in Liberal Arts and Sciences.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508 W or Rhetoric and Writing Studies 305 W or 500 W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Classics 340, Humanities 401, 402, 403, 404 and 490; three units from Geography 336, Political Science 301A, 301B, or 302; nine units from European content courses in Art (art history), Comparative Literature, English, History, Humanities, Music 351A, 351B, Philosophy, Religious Studies, Theatre 460A, 460B, or Women's Studies 340, with no more than three units in any discipline (courses in Art, Comparative Literature, English, History, Philosophy, or Religious Studies may be taken only with prior permission of major adviser). (Some upper division courses in the major may have prerequisites not included among courses in the preparation for the major.)

Master Plan. A master plan of the courses taken to fulfill the major must be approved by the humanities undergraduate adviser and filed with the Office of Advising and Evaluations.

## Humanities Minor

The minor in humanities consists of a minimum of 18 units, of which at least 12 units must be upper division and at least 12 units must be in Humanities; three to six units must be selected from Humanities 460 and Asian Studies 458; three units may be selected from Classics 140 or Comparative Literature 270A.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

## Courses (HUM)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## HUM 101. Introduction to Humanities (3) [GE]

Preliminary investigation: How values and ideals are expressed in literary, artistic, and intellectual achievements of individuals and civilizations throughout the world.

## HUM 140. Mythology (3) [GE]

Comparative themes and figures from various mythologies of the world. Interpretation of myths; their influence on art, culture, and history.

## HUM 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)

## HUM 310. French Civilization (3) [GE]

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.
HUM 320. German Civilization (3) [GE]
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.
HUM 330. Russian Civilization (3) [GE] 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.

HUM 340. Italian Civilization (3) [GE]
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.

## HUM 370. Humanities in America (3) [GE] I

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Great literary, artistic, and intellectual traditions and achievements in America. From Neoclassicism to Postmodernism.

## HUM 401. The Medieval Heritage (3) [GE] I

Prerequisites: History 105, 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.

## HUM 402. The Renaissance (3) [GE] II

Prerequisites: History 105, 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.
HUM 403. The Baroque and the Enlightenment (3) [GE] I
Prerequisites: History 106, 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.

## HUM 404. The Modern European Heritage (3) [GE] II

Prerequisites: History 106, 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. From Romanticism to Postmodernism.

## HUM 460. African Civilizations (3) [GE]

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.

## HUM 490. Senior Seminar in Classics and Humanities (3)

Prerequisites: Classics or humanities major with more than 90 units; others with consent of department chair.

Senior capstone seminar in major. Discussion and research on topic in classics and humanities. Formal research paper.

## HUM 496. Topics in Humanities (3)

Interdisciplinary topics in literature and the arts. 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)

## HUM 596. Topics in Humanities (1-3)

Prerequisite: Upper division standing and consent of instructor.
Interdisciplinary topics in literature and the arts. 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 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.

HUM 599. Special Study (1-3)
Prerequisite: Consent of major or graduate adviser; to be arranged by department chair and instructor.

Directed individual study. Maximum credit six units.


# Information and Decision Systems 

OFFICE: Student Services 2411
TELEPHONE: 619-594-5316
FAX: 619-594-3675

In the College of Business Administration

## A Member of AACSB International-The Association to Advance Collegiate Schools of Business.

## Faculty

Emeritus: Feeney, Flatley, Gibson, Hatch, Langenbach, LyonsLawrence, Norman, Schlesinger, Sherrard, Sondak, Spaulding, Straub
Chair: Penrose
Professors: Beatty, Koster, Lackritz, Penrose, Raafat, Reinig, Vik, Yang
Associate Professors: Addo, Easton, A., Easton, G., Jennex, Shin
Assistant Professors: Plice, Shu
Lecturer: Tyler

## 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.
Minor in information systems.

## 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.

## Business Honors Program

The Business Honors Program offers excellent upper division business students the opportunity to explore issues in our local, regional, and global business environments focusing on the social and ethical responsibility that business has to the community and society. Honors students will enroll in a one unit business honors seminar each semester. During their enrollment they will participate in activities to promote their academic and personal growth, documenting their work in a written portfolio.

Generally, students should apply to this program at the time of application to upper division business. Applicants must submit an essay with their application. Applicants must have a 3.6 cumulative GPA or good standing in the University Honors Program. Students not meeting these requirements may petition for admission to the program. Successful completion of the Business Honors Program will be recognized at graduation. Contact Dr. Carol Venable, School of Accountancy, for more information about this program.

## Statement on Computers

Before enrolling in upper division courses in the College of Business Administration, students must be competent in the operation of personal computers, including word processing and spreadsheets. Business students are strongly encouraged to have their own computers capable of running word processing, spreadsheet, presentation, email, and Internet applications such as those found in packages sold by major software publishers. Availability of on-campus computing resources can be limited due to increasing demand across the University.

## Retention Policy

The College of Business Administration expects that upper division students will make reasonable academic progress towards the degree. Students earning less than a 2.0 average in their classes for two or more semesters may be removed from the upper division major and required to declare a non-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 AACSB International-The Association to Advance Collegiate Schools of Business accredited program. Exceptions require thorough documentation evidencing the above standards.

## Impacted Program

The information systems major is impacted. Before enrolling in any upper division courses in business administration, students must advance to an upper division business major and obtain a business major code. To be admitted to an upper division business major (accounting, finance, financial services, real estate, information systems, management, or marketing), students must meet the following criteria:
a. Complete with a grade of C or higher: Accountancy 201 and 202; Finance 240; Information and Decision Systems 180 and 290 (290 is not required for the accounting major); Economics 101 and 102; Mathematics 120 (or other approved calculus course); and either Statistics 119 or Economics 201. These courses cannot be taken for credit/no credit ( $\mathrm{Cr} / \mathrm{NC}$ );
b. Complete a minimum of 60 transferable semester units;
c. Have a cumulative GPA of 2.9;

Students who meet all requirements except the GPA may request to be placed on the waiting list. While all spaces are usually filled by eligible students, if there is room in the program after all the fully-qualified students have been accommodated, students will be admitted from the waiting list in GPA order. Contact the Business Advising Center (BA-448), 619-594-5828, for more information.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Information Systems Major

With the B.S. Degree in Business Administration
(Major Code: 07021)
A minor is not required with this major.
Preparation for the Major. Information and Decision Systems 180, 290; Accountancy 201, 202; Finance 240; Economics 101, 102; Mathematics 120 (or other approved calculus course); and Economics 201 or Statistics 119. (27-29 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$; the minimum grade in each class is C. Additional progress requirements must be met before a student is admitted to an upper division major.

Graduation Writing Assessment Requirement. Students must have fulfilled the Writing Proficiency Assessment with a score of 8 or above before taking Information and Decision Systems 396W and earn a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. Forty-three upper division units consisting of Information and Decision Systems 302, 306, 315, 380, 396W, 406, 483, 492; Business Administration 300; Finance 323; Management 350 and 405 or Business Administration 404; Marketing 370; six units selected from Information and Decision Systems 301, 375, 460, 481, 482, 515, 520. A "C" (2.0) average is required in the courses stipulated here for the major.

A minimum of 60 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration, economics, and statistics. This means that at least two units of electives (upper or lower division) must be completed in areas other than business administration, economics, and statistics.

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.

## Information Systems Minor

The minor in information systems consists of a minimum of 21 units to include Information and Decision Systems 180, 306, 315, 375; and nine units selected from Information and Decision Systems 380, 406, 481, 482, 483, 492, 515, 520.

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 in residence at San Diego State University. Students with a major in the College of Business Administration, Hospitality and Tourism Management, or International Business may not complete a minor in the College of Business Administration.

Students must officially declare the minor before taking any upper division business courses. Students must meet the prerequisites for the minor in effect at the time that they declare the minor. The current prerequisites for admission to the information systems minor include completion of the following courses with a grade of C or better: Economics 101, 102, and a three unit course in statistics (Statistics 119 is recommended); completion of the General Education requirements in Communication and Critical Thinking; completion of an additional nine units in the department of the student's major, including at least six units of upper division courses. Students must also meet the GPA requirement in effect at the time that they declare the minor. Contact the Business Advising Center (BA-448) for admissions criteria and procedures.

## Courses (IDS)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## IDS 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.

IDS 290. Business Communication (3) I, II
Prerequisite: Rhetoric and Writing Studies 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)
## IDS 301. Statistical Analysis for Business (3) I, II

Prerequisites: Mathematics 120; Economics 201 or Statistics 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.
IDS 302. Introduction to Operations Management (3) I, II, S
Prerequisites: Mathematics 120; Economics 201 or Statistics 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.

IDS 306. Information Systems Analysis (3) I, II, S
Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration.

Systems development life cycle concept, with emphasis on analysis of requirements using structured methodology. Feasibility study, needs assessment, prototyping, application design alternatives.

## IDS 315. Business Application Programming (3)

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration.

Computer programming for business applications. Appropriate data structures, control structures and program structures. Languages widely used in business applications.

## IDS 375. Information Systems Technology (3)

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration.

Technologies underlying information systems, including computer organization and components, computer arithmetic, I/O and storage, multimedia processing, data communications fundamentals, local area networks, internetworking, and workgroup computing.

## IDS 380. Data Management Systems (3) I, II

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration.

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. (Formerly numbered Information and Decision Systems 480.)

## IDS 390W. Reporting Techniques for Accountants (4)

Prerequisites: Credit or concurrent registration in Accountancy 321. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisite required: Test score or verification of exemption; copy of transcript.

Advanced preparation of written and oral reports with application to professional needs of accountants.

## IDS 396W. Reporting Techniques for Business Professionals (3) I, II

Prerequisites: Information and Decision Systems 290. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisite required: Test score or verification of exemption; 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.

## IDS 406. Information Systems Design (3) I, II

Prerequisites: Information and Decision Systems 306, 315, 380.
Business information systems design, installation, and implementation as part of the systems development life cycle, with emphasis on structured design methodology.

## IDS 460. Project Management (3)

Prerequisite: Credit or concurrent registration in Information and Decision Systems 302.

Management of small and large projects. Work breakdown structure milestones, project cost estimating and reporting, and single and multiple resource allocation/leveling. Computerized project management software.

## IDS 481. E-Business/Web Development (3) I, II

Prerequisites: Information and Decision Systems 306, 315, 380, and credit or concurrent registration in Information and Decision Systems 406.

Issues and tools related to developing Internet-based applications with database integration through hands-on projects. Developing complex sets of Web pages by linking front-end Web browser languages and databases via back-end server languages, database queries, and middleware.

## IDS 482. Information Technology Projects (3)

Prerequisite: Completion of at least 18 units of upper division information and decision systems courses.

Projects with San Diego area client organizations related to information technologies; topics may include: development life cycles, rapid application development, managing teams, client management, group interaction and conflict resolution, software metrics, and quality assurance techniques.

## IDS 483. Networks and Data Communications (3) I, II

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration.

Fundamental data communications concepts, including voice communications and carrier service offerings, communications hardware, and network design. Global, enterprise, workgroup, and local area networks. Protocols and network operating systems. Network security and control.

## IDS 492. Management of Information Systems (3) I, II

Prerequisite: Information and Decision Systems 306 and 380. Proof of completion of prerequisites required: Copy of transcript.

Role of information systems in organizations from management perspective: strategic information system planning, systems administration, and management of end user computing. Management issues related to systems development and implementation. Management of computer operations and the computer center.

IDS 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.

## IDS 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 information systems under the direction of one or more members of the information systems staff. May be repeated with new content. Maximum credit six units.

## IDS 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)

## IDS 515. Advanced Programming for Business (3) I,II

Prerequisite: Information and Decision Systems 315 or knowledge of one computer programming language.

Advanced programming for business applications in widely used programming languages. Advanced concepts of data structures used in business programming, control structures, and program structures. Selection of programming languages for particular purposes. Not open to students with credit in Information and Decision Systems 383 or 384

IDS 520. Java Programming for Business Applications (3) Prerequisite: A course in C/C++ programming.
Comprehensive coverage of both Java applications and applets with emphasis on business application programs using graphical user interfaces. Business applications include multimedia programs, network processing, and database connectivity.

GRADUATE COURSES Refer to the Graduate Bulletin.


# Interdisciplinary Programs 

## Interdisciplinary Programs Offered

Major in interdisciplinary studies in three departments 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.
Certificate in environmental studies.

For information on additional interdisciplinary programs, refer to this section of the catalog under the headings of Arabic, Asian Studies, Child and Family Development, European Studies, Gerontology, Humanities, International Business, International Security and Conflict Resolution, Jewish Studies, Latin American Studies, Liberal Studies, and Social Science.

## Interdisciplinary Studies in Three Departments

## In the Division of Undergraduate Studies

Office: Administration 101
Telephone: 619-594-5841
FAX: 619-594-7934

## Advising

Preliminary approval of the major must be secured from the Assistant Dean of Undergraduate Studies PRIOR TO COMPLETION OF 90 SEMESTER UNITS. Acceptance into the program requires approval from each of three departmental advisers. Information regarding participating departments and procedures for application is available in the Division of Undergraduate Studies.

## The Major

Interdisciplinary Studies in Three Departments is a studentdesigned major incorporating three different disciplines into a unified theme. The application process includes submission of an essay justifying a cohesive and rational master plan and the selection of upper and lower division coursework from three participating departments. Guidelines exist for Performing Arts.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Interdisciplinary Studies in Three Departments

With the B.A. Degree in Liberal Arts and Sciences (Major Code: 49993)

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-101) 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 semester 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.

For students electing biology as one of the three departments for the Interdisciplinary Studies in Three Departments, the minimum requirement for the lower division preparation for the major is Biology 201B and either Biology 100 or 201A ( $7-8$ units). The minimum requirement for the upper division major is an organismal course as described for the biology major, either both Biology 352 and 354 or both Chemistry 365 and Biology 366L, and a 500-level biology course (minimum 10 units). Other biology courses numbered 350 and above may be included as electives.

For students electing French as one of their departments, all lower division preparation for the major or equivalent competency must be completed in addition to French 301, 305A or 305B, and 421 or 422. Students electing Italian must fulfill lower division competency requirements, Italian 301, and two other upper division Italian courses.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

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.

## Urban Studies

In the College of Arts and Letters and the College of Professional Studies and Fine Arts<br>Office: Professional Studies and Fine Arts 105<br>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, Chicana and Chicano Studies, Economics, Geography, Political Science, Public Administration and Urban Studies, and Sociology.

Chair and Undergraduate Adviser: Caves (Public Administration and Urban Studies)

Committee: Ford (Geography), Gay (Sociology), Griswold del Castillo (Chicana and Chicano Studies), Herzog (Public Administration and Urban Studies), Kartman (Economics), Rodriguez (Chicana and Chicano Studies)

## 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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 Economics 201 or Political Science 201 or Sociology 201 or Statistics 250. (Students who specialize in economics must take Economics 201 or Statistics 250.) (21 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(\mathrm{W})$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements

Major. A minimum of 30 upper division units to include 12 units selected from the following: Chicana and Chicano Studies 355; Economics 458; Geography 354; Political Science 422; Public Administration 310; and 18 units in an area of specialization (may include up to three units outside the specialization).

Anthropology. Required: Anthropology 580; and 12 units selected from Anthropology 349, 430, 444, 582, 583.

Economics. Required: Economics 441; and 12 units to include Economics 301 and nine units selected from Economics 320, 321, 401, 489, 507, 565.

Geography. Required: Geography 385 or 585; and 12 units selected from Geography 353, 381, 385, 554, 556, 559, 572, 585, 587, 588.

Mexican American Border Studies. Required: Chicana and Chicano Studies 355; and 12 units selected from Chicana and Chicano Studies 301, 303, 306, 375, 596

Political Science. Required: Political Science 515; and 12 units to include Political Science 321, 334, 335, 531.

Public Administration and Urban Studies. Nine units selected from Public Administration 350, 420, 510, 512, 520; and six units selected from one of the following groups: (a) 450, 460, 512, 520; (b) 320, 525.

Sociology. Required: Sociology $406^{*}$ or $407^{*}$; and 12 units selected from Sociology 350, 355, 406* or 407* (if not taken as a required course), 443, 456, 457, 505, 537, 543.

Master Plan. A master plan of the courses taken to fulfill the major must be approved by the program faculty adviser and filed with the Office of Advising and Evaluations one semester before graduation.

* Additional prerequisites required.


## Interdisciplinary Minors

## African Studies Minor

Dr. Charles H. Cutter, Department of Classics and Humanities, is adviser for this minor.

The minor in African Studies consists of a minimum of 15 upper division units, to include History 475, 476; Humanities 460; Political Science 364; and Religious Studies 328*

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 in residence at San Diego State University.

## * Additional prerequisites required.

## Energy Studies Minor*

Dr. Alan R. Sweedler, Department of Physics, is adviser for this minor.

The interdisciplinary minor in energy studies consists of a minimum of 15 units to include Economics 452, Mechanical Engineering 352* Physics 301; and six units selected from Art 247 or 347, Economics 453, Electrical Engineering 380*, 580*, Mechanical Engineering 552*, $556^{*}$, Geography 370, 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 in residence 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.

[^24]
## Environment and Society Minor*

Dr. Sarah S. Elkind, Department of History, 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 315 or 327, Economics 452, 453, Geography 370, 409, or 573, and History 441 or 540; and six units selected from Biology 315, 324, 327, Economics 452, 453, 454, Geography 370, 570, 573, 574, 575, History 441, 540, Political Science 334, 335, Sociology 350. Also acceptable: Geological Sciences 303, Philosophy 332, 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 in residence at San Diego State University.

* Additional prerequisites may be required for courses in the minor.


## Interdisciplinary Certificate

## Environmental Studies Certificate

The Environmental Studies Certificate is designed for students already holding a bachelor's degree (in any field) who desire to increase their understanding of the theoretical and applied approaches to environmental problems and issues. This is not a certificate program
in the hard sciences, but rather is intended to provide diverse ways for students to develop knowledge of the causes and consequences of the human impact on the environment and the impact on humans of philosophical, political, economic, spatial, and natural science perspectives. This professional development program offers a multi-disciplinary approach to environmental studies for natural resource managers, teachers, community activists, and others who are concerned about the interaction of people and the environment.

Students must complete the required units with a 2.5 grade point average. A bachelor's degree from a university is also required.

The certificate requires 15 units to include nine units selected from Economics 453, Geography 370, 573, International Security and Conflict Resolution 300, Oceanography 320, Political Science 334; and six units selected from Biology 315, 324, 327, Economics 452, 454, 489, Geography 378, 409, 570, 572, 574, Geological Sciences 301, 303, History 441, 540, International Security and Conflict Resolution 301, Philosophy 332, Public Health 304, Recreation 487. Core courses can be counted in only one category; 500-numbered courses may have substantial prerequisites, but may be counted later for graduate credit toward an M.A. degree.

Students interested in the Environmental Studies Certificate will normally enroll in courses through Open University. Prior to enrollment, contact Dr. John R. Weeks, Department of Geography or Dr. Donna L. Ross, School of Teacher Education, to develop an approved program of coursework


Photo: Polly Sipper

# International Business 

In the College of Arts and Letters and<br>the College of Business Administration

OFFICE: Arts and Letters 208<br>TELEPHONE: 619-594-4505 / FAX: 619-594-7738<br>E-MAIL: ib@mail.sdsu.edu http://www.sdsu.edu/ib

A member of AACSB International-The Association to Advance Collegiate Schools of Business.

## Faculty

International Business is administered by the International Business Program Committee. The program draws on courses offered by faculty in the following areas: Accountancy, Africana Studies, American Indian Studies, Anthropology, Arabic, Art, Asia Pacific Studies, Chicana and Chicano Studies, Chinese, Communication, Comparative Literature, Economics, English, European Studies, Finance, French, Geography, German, History, Humanities, Information and Decision Systems, Italian, Japanese, Latin American Studies, Linguistics, Management, Marketing, Philosophy, Political Science, Portuguese, Public Administration, Religious Studies, Rhetoric and Writing Studies, Russian, Sociology, Spanish, and Women's Studies.

## Chair:Steven J. Loughrin-Sacco (European Studies)

## Offered by International Business

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

Emphases in language: Arabic, Chinese, French, German, Italian, Japanese, Portuguese, Russian, and Spanish.
Emphases in regional/cultural studies: Africa-Middle East, Asia-Pacific, Latin America, North America, Russia and Central Europe, and Western Europe.

## The Major

International business is an interdisciplinary major that culminates in a Bachelor of Arts degree offered jointly by the College of Arts and Letters and the College of Business Administration. 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. All students are required to spend a semester abroad and to complete an international internship.

Students select one of nine emphases in foreign language (chosen from Arabic, Chinese, French, German, Italian, Japanese, Portuguese, Russian, and Spanish) and one of six emphases in regional/cultural studies (chosen from Africa-Middle East, Asia-Pacific, Latin America, North America, Russia and Central Europe, and Western Europe). Students also complete the necessary business courses to meet accreditation standards of the 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 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 and nationwide.

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.

## Semester Abroad Requirement

All International Business majors are required to complete a semester abroad. Students may satisfy the requirement by studying abroad through one of our approved exchange programs. Students must complete 12 units of coursework. At least two out of the four courses must be upper division business courses. Students must successfully complete all four courses with a passing grade otherwise the study abroad requirement will not have been met. Students must be upper division in the major prior to submitting the application to go abroad. Exceptions may be made in Arabic, Chinese, Japanese, and Russian. Unapproved study abroad programs will not meet the requirement.

As an alternative to studying abroad at an approved exchange program, students may choose to complete an internship abroad in the region and language of emphasis. In order to meet this requirement, students must complete a minimum of 250 hours of work abroad.

## Study Abroad Programs

The international business program currently has direct exchange agreements with: Centro de Enseñanza Técnica y Superior (CETYS), Ensenada, Mexicali and Tijuana, Mexico; Ecole Supérieure des Practiciens de Commerce International (Groupe ESSEC), Cergy Pontoise, France; Fachhochschule Reutlingen, Reutlingen, Germany; Instituto Tecnológico de Estudios Superiores de Monterrey (ITESM), 26 campuses throughout Mexico; Brazil: Pontificia Universidade Católica do Rio de Janeiro (PUC-RIO), Rio de Janeiro, and Universidade Federal do Parana, Curitiba; Universidad Antonio de Nebrija, Madrid, Spain; Universidad Autónoma de Baja California (UABC), Tijuana, Mexico; Universidad de Barcelona, Barcelona, Spain; Universidad del CEMA, Buenos Aires, Argentina; Universidad de San Francisco, Quito, Ecuador; Universidad de Valladolid, Valladolid, Spain; Universidad de Valparaíso, Valparaíso y Viña del Mar, Chile; and Université du Quebéc at Chicoutimi, Québec, Canada. Qualified International Business majors participating in an exchange program make normal progress toward the degree while generally paying SDSU fees only.

## Internship Requirement

All students in the major must complete an internship in international business by enrolling in the International Business 495 course. Students have to be upper division in the major prior to completing their internship. Students may choose to complete an internship abroad, though this is not required. Students who choose to complete an internship abroad may meet the Semester Abroad Requirement, but preapproval must be obtained from the International Business office.

## Impacted Program

The international business major is an impacted program. To be admitted to the international business major, students must meet the following criteria:
a. Complete with a grade of C or higher: Accountancy 201 and 202; Economics 101 and 102; Economics 201 or Statistics 119; Finance 240; and Information and Decision Systems 180. Courses cannot have been taken prior to Fall 1992. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete or test out of one language sequence: Arabic 101, 102, 201, 202 (16 units); Chinese 101, 102, 201, 202 (20 units); French 100A, 100B, 201, 210, 220, 221 (22 units); German 100A, 100B, 202, 205A, 205B (21 units); Italian 100A, 100B, 201, 210 (16 units); Japanese 111, 112, 211, 212 (24 units); Portuguese 101, 201 (10 units); Russian 100A, 100B, 200A, 200B (20 units); or Spanish 101, 102, 103, 202, 211, 212 (22 units);
c. Complete with a grade of C or higher, the regional/cultural studies emphasis from one of the following regions: Africa-Middle East: History 100 and 101; Asia-Pacific: Six units selected from Asian Studies 100, 101, or 261; Latin America: Six units selected from History 115, 116 (recommended); Latin American Studies 101 (recommended); North America: Six units selected from Chicana and Chicano Studies 141A-141B, History 109, 110, or 115, 116, or Political Science 101, 102; Russia and Central Europe: Six units selected from Classics 140; European Studies 101; History 105, 106 (recommended); Western Europe: Six units selected from Classics 140; European Studies 101; History 105, 106 (recommended). These courses cannot be taken for credit/no credit (Cr/NC);
d. Complete a minimum of 60 transferable semester units;
e. Have a cumulative GPA of 2.90 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment). After satisfying the above supplementary admissions criteria, students must submit documentation (unofficial transcripts, grade cards, etc.) to the program adviser before they can be admitted to the upper division major.

## Advising

All students admitted to the university with a declared major in International Business are required to attend an advising meeting with the program adviser during their first semester on campus.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## International Business Major

## With the B.A. Degree in Liberal Arts and Sciences (Major Code: 05131)

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 normally complete a minor in the College of Business Administration or in the language or regional/cultural emphases used to satisfy major requirements.

No courses in the preparation for the major may be taken for $\mathrm{Cr} /$ NC ; the minimum grade in each course in lower division business is $C$.

Preparation for the Major. (Complete I, II, and III: 37-51 units)
I. Business: Accountancy 201, 202; Economics 101, 102; Economics 201 or Statistics 119; Finance 240; and Information and Decision Systems 180. (21 units)
II. Language Emphasis (choose one language): The lower division language course requirements may also be satisfied by successful results on certain standardized language examinations; contact the adviser of the appropriate language department for details. Students whose high school instruction was taught in a language
other than English may not take that language as their emphasis in the major. (Exceptions can be made for students enrolled in dual or triple degree programs. Please see the International Business office for details.)

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# Arabic 101, 102, 201, 202. (16 units)
\dagger Chinese 101, 102, 201, 202. (20 units)
    French 100A, 100B, 201, 210, 220, 221. (22 units)
    German 100A, 100B, 202, 205A, 205B. (21 units)
    Italian 100A, 100B, 201, 210. (16 units)
\dagger Japanese 111, 112, 211, 212. (24 units) (Not open to speak-
    ers of Japanese who have completed compulsory educa-
    tion through junior high school in Japan.)
    Portuguese 101, 201. (10 units)
§ Russian 100A, 100B, 200A, 200B. (20 units)
    Spanish 101, 102, 103, 202, 211, 212. Spanish }281\mathrm{ replaces
    103 and 211; and Spanish }282\mathrm{ replaces 202 and 212 for U.S.
    Hispanics. See adviser in Spanish department. (22 units)
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\# Students choosing Arabic language emphasis must complete the Africa-Middle East regional/cultural emphasis.
$\dagger$ Students choosing Chinese or Japanese language emphasis must complete the Asia-Pacific regional/cultural emphasis.
§ Students choosing Russian language emphasis must complete the Russia and Central Europe regional/cultural emphasis.
III. Regional/Cultural Studies Emphasis (choose one region):

Africa-Middle East: History 100 and 101.
Asia-Pacific: Asian Studies 100 and 101.
Latin America: Six units selected from History 115, 116 (recommended); Latin American Studies 101 (recommended).

North America: Six units (one pair) selected from Chicana and Chicano Studies 141A-141B, History 109, 110, or 115, 116, or Political Science 101, 102.

Russia and Central Europe: Six units selected from Classics 140; European Studies 101; History 105, 106 (recommended).

Western Europe: Six units selected from Classics 140; European Studies 101; History 105, 106 (recommended).

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. (Complete I, II, and III below: 53-57 units) A minimum grade point average of 2.0 in each of the three areas is required for graduation.
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):

Specialization: A minimum of 28 upper division units to include Finance 323, 329; Information and Decision Systems 302; Management 350, 405; Marketing 370, 376, and completion of one of the following areas of specialization:

Finance: Two 300 or 400-level courses in finance.
Management: Two 300 or 400-level courses in management. (Recommended: Management 357.)

Marketing: Two 300 or 400-level courses in marketing.
II. Language Emphasis (choose one language):

Arabic 301, 302, 496. (12 units)
Chinese 301, 302, 431, 434. (12 units)

French 301, 302, 422, and 423. (12 units)
German 300, 301, 400, 430. (12 units)
Italian: 12 units selected from Italian 301, 305A, 305B, 421, 422 or 424.
Japanese 311, 312, 321 or 322, 411. (16 units) (Not open to speakers of Japanese who have completed compulsory education through junior high school in Japan.)
Portuguese 301, 401, 443, 534 (for Western Europe Regional/ Cultural Emphasis) or 535 (for Latin America Regional/Cultural Emphasis). (12 units)
Russian 301, 303, 430, 501. (12 units)
Spanish 301, 302 (or 381 and either 350, 491 or 493), 307, 497 (12 units). Spanish 381 replaces 301 and 302 for U.S. Hispanics; see adviser in Spanish department.
Language Proficiency Assessment Requirement. Students are required to satisfy the Language Proficiency Assessment Requirement during or immediately following the semester in which they complete their last language course. To clear the language proficiency assessment requirement, students must achieve a passing score on a language examination approved by the international business program.
III. Regional/Cultural Studies Emphasis (Choose one region. A maximum of five courses may be applied to the major.) All international business majors are required to complete a study abroad or internship abroad experience of at least one semester in length. See the international business study abroad adviser to arrange for the study abroad, and the internship adviser to contract for the internship. Students who choose the study abroad option are still required to complete an internship (International Business 495). Students who choose the internship abroad option may earn credit for International Business 495.

Africa-Middle East: International Business 495, 498, and a minimum of nine units, with no more than two courses from one department selected from Africana Studies 463, 470; Arabic 330; Art 569+; Communication $371^{+}$; Comparative Literature 440; French 465; History 473, 475, 476, 488, 574; Humanities 460; Political Science 363, 364, $393^{+}$, $496{ }^{+}$; Religious Studies 320, 328; Women's Studies 580+.

Asia-Pacific: International Business 495, 498, and a minimum of nine units, with no more than two courses from one department selected from Anthropology 450, 452, 582+; Asian Studies 458*, 459*, 471, 570; Chinese 351@, 352, 431, 433@, 451@; Communication $371^{+}$; Comparative Literature 460, 530; Economics 330, 360, 365, 465; History 420, 421, 422, 566, 567, 570; Japanese 321, 322, 412\#, 421, 422, 496+; Philosophy 351, 575+; Political Science 362, 393, 496, 575*; Religious Studies 339*, 345*; Women's Studies 331.

Latin America: International Business 495, 498, and a minimum of nine units, with no more than six units from one department, selected from Anthropology 442, 582+; Art 562; Chicana and Chicano Studies 306, 310, 350A, 355, 375, 376, 380, 400; Communication 371+; Economics 360 (recommended), 365, 464, 565; Geography 323, 324, 353+; History 415, 416, 550, 551, 552, 558; Latin American Studies 560, 580; Political Science 393, 482, 496,

566, 567, 568, 575*; Portuguese 535; Public Administration 580*+; Spanish 341, 342, 406A, 406B, 491*, 492*, 493*; Women’s Studies $310^{+}, 512,580^{+}$.

North America: International Business 495, 498, Economics 565, and a minimum of six units, one course (three units) each from section A. Mexico and Mexico-U.S. Border and section B. United States.
A. Mexico and Mexico-U.S. Border: Chicana and Chicano Studies 306, 340, 350A, 355, 375, 380, 400, 498*; History 550, 551; Political Science 496+, 568; Public Administration 485; Spanish 342, 515*.
B. United States: Africana Studies 320, 321, 322, 471B; American Indian Studies 320, 400, 440; Anthropology 444, 445, 446; Art 560; Chicana and Chicano Studies 301, 303, 310, 320, 335, 350B, 376, 480; Communication 371+; Economics 330, 338; English 494, 519, 525; Geography 321, 353+, 354; History 450W, 442B, 445, 532, 536, 540, 544B, 545; Humanities 370; Linguistics 524; Political Science 305, 320, 321, 334, 335, 347A, 347B, 348, 422, 436, 478, 496+, 531; Public Administration 485; Religious Studies 390A-390B; Sociology 320, 335, 355, 421, 430, 433, 531, 537; Women's Studies 341A, 341B, 375.
Russia and Central Europe: International Business 495, 498, and a minimum of nine units with no more than six units from one department, selected from Communication 371+; Economics 330; History 518; Humanities 330; Political Science 359, 393, 496; Russian 311, 441, 470.

Western Europe: International Business 495, 498, and a minimum of nine units, with no more than six units from one department, selected from Anthropology 582+; Art 558; Communication $371^{+}$; Comparative Literature 512, 513, 514; Economics 330, 360; European Studies 301, 424, 501; French 305A, 305B, 421, 424; Geography 336, $353^{+}$; German 320,430, 520*; History 407, 408, 504, 505, 506, 507, 512A, 512B, 528; Humanities 310, 320, 340, 401, 402, 403, 404; Italian 305A, 305B; Philosophy 411, 412, 413, 414; Political Science $356,393^{+}, 496^{+}$; Portuguese 534; Spanish 340, 405A, 405B, 491*, 492, 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.

Master Plan. A master plan of the courses taken to fulfill the major must be approved by the international business program adviser and filed with the Office of Advising and Evaluations one semester before graduation.

* Indicates courses with prerequisites not included in requirements listed above.
+ These courses may be included in the major only with the prior written approval of the undergraduate adviser for international business.
@ Two of these courses are required of students choosing Chinese to satisfy the language emphasis of the major.
\# Required of students choosing Japanese to satisfy the language emphasis.


## Courses (IB)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## I B 296. Topics in International Business (1-3)

Selected topics in international business. 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.

## I B 299. Special Study (3-6)

Prerequisite: Pre-International Business major.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

I B 490. Senior Honors Thesis (3) Cr/NC I, II
Prerequisites: Senior standing and consent of honors thesis adviser.

Directed research or project on a topic related to international business chosen in consultation with the honors adviser and completion of a senior honors thesis. Required of students wishing to graduate with an Honors Certificate of Recognition in International Business.

I B 495. International Business Internship (3) Cr/NC/RP I, II
Prerequisites: Consent of instructor; upper division standing in the major.

Internships with international business firms, nonprofit organizations, and government agencies in U.S. and abroad. Work done under joint direction of activity sponsor and instructor. Project report and internship conferences required. Maximum credit three units.
I B 498. Doing Business Internationally (1) Cr/NC
Prerequisite: Upper division status in the major.
Required business customs and protocol course pertinent to all regions.

## I B 499. Special Study (1-6)

Prerequisite: International business major.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSE

 (Also Acceptable for Advanced Degrees)I B 596. Topics in International Business (1-3)
Prerequisite: Upper division standing.
Selected topics in international business. 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.

## Language Proficiency Assessment Requirement

For information regarding the Language Proficiency Assessment Requirement for Chinese, Italian, Japanese, Portuguese, and Russian, contact the International Business office.

## Certificat professionel

The International Business office administers the Chambre de Commerce et d'Industrie de Paris Certificat de français professionel examination each May at SDSU. Students normally sit for the Certificat examination during or immediately following the semester they take French 423. Passage of this examination is required to clear the Language Proficiency Assessment Requirement for the French language emphasis in international business.

## Examen Internacional de Negocios en Español

The International Business office administers the Examen Internacional de Negocios en Español (EXIGE) each semester at SDSU. Students sit for the EXIGE examination during or immediately following the semester they take Spanish 497. Passage of this examination is required to clear the Language Proficiency Assessment Requirement for the Spanish language emphasis in international business.

## Zertifikat Deutsch für den Beruf

Passage of the Zertifikat Deutsch für den Beruf examination is required to clear the Language Proficiency Assessment Requirement for the German language emphasis in international business.

## International Business Major Honors

The international business major offers high achieving undergraduates the opportunity to participate in an international business honors program leading to special recognition upon graduation. Honors candidates must achieve a 3.25 grade point average in the major upon entrance and upon exit, complete one year of study abroad, an internship abroad, and a minor or equivalent proficiency in a third language not already emphasized in the international business major. The final criteria for graduating with honors in the major is completion of International Business 490, Senior Honors Thesis, which is open to those who have met all other honors requirements. Interested students should consult the academic adviser in the International Business Program office.

## MEXUS Dual Degree

MEXUS is a transnational dual degree program between San Diego State University and universities in Mexico. Students have the option of choosing among three universities in Mexico: 1) CETYS University; 2) Universidad Autonoma de Baja California (UABC); and 3) Instituto Tecnológico de Estudios Superiores de Monterrey (ITESM). Students may enter the program at any one of these schools and must spend a minimum of one-and-one-half years of study each in the U.S. and in Mexico.

Participants in the MEXUS program are enrolled in the International Business major at San Diego State University.

In addition to completing 49 units of General Education requirements at SDSU, students in the MEXUS program must complete between 91-123 units in International Business courses.

Approximately one-half of all of these requirements are completed in Spanish while attending a school in Mexico. Successful participants earn both the Bachelor of Arts degree in liberal arts and sciences with a major in International Business, emphases in Spanish and Latin America from SDSU, and a equivalent degree from one of the three universities in Mexico.

## SanBrazil Dual Degree

San Brazil is a transnational dual degree program between San Diego State University and Pontifica Universidade Catolica Do Rio de Janeiro (PUC-Rio). Students may enter the program at either of the two schools and must spend a minimum of one-and-one-half years of study each in the U.S. and in Brazil.

Participants in SanBrazil are enrolled in the International Business major at San Diego State University.

In addition to completing 49 units of General Education requirements at SDSU, students in the SanBrazil program must complete 88 units in International Business courses.

Approximately one-half of all of these requirements are completed in Portuguese while attending school in Brazil. Successful participants earn the Bachelor of Arts degree in liberal arts and sciences with a major in International Business, emphases in Portuguese and Latin America from SDSU, and the Graduacao em Administracão de Empresas from PUC-Rio.

## SanDiQué Dual Degree

The SanDiQué program is a partnership between San Diego State University and the University of Quebec. Students may enter the program at either of the two universities and must spend a minimum of one year of study in both the United States and Canada.

Participants in the SanDiQué program are enrolled in the International Business major at San Diego State University.

In addition to completing 49 units of General Education requirements at SDSU, students in the SanDiQué program must complete 81 units of international business courses. Approximately one-quarter of all these requirements are completed in French while attending school in Canada. Students are also required to participate in an internship program, which provides SanDiQué students with the opportunity to work for an international institution and to develop a network of contracts in the private or public community, a vital step toward employment after graduation.

## San Paraíso Dual Degree

San Paraíso is a transnational dual degree program between San Diego State University (SDSU) and the Universidad de Valparaíso (UV). Students may enter the program at either of the two schools and must spend a minimum of one year of study each in the United States and in Chile.

Participants in San Paraíso are enrolled in the International Business major at San Diego State University.

In addition to completing 49 units of General Education at SDSU, students in the San Paraíso program must complete 76 units of international business courses. Approximately a quarter of all of these requirements are completed in Spanish while attending school in Chile. Successful participants earn both the Bachelor of Arts degree in liberal arts and sciences with a major in international business, emphases in Spanish and Latin America from SDSU and the Licenciatura en Negocios Internacionales from UV.

## CaMexUS Triple Degree

CaMexUS is a transnational triple degree program between San Diego State University (SDSU), the Université du Quebec a Chicoutimi (UQAC), and the Universidad Autonoma de Baja California (UABC). Students may enter the program at any of the three schools and must spend a minimum of one year of study in Canada, Mexico, and the United States.

Participants in CaMexUS are enrolled in the International Business major at San Diego State University.

In addition to completing 49 units of General Education requirements at SDSU, students in the CaMexUS program must complete 85 units of international business courses. Approximately a quarter of all of these requirements are completed in French while attending school in Canada, and another quarter of these requirements are completed in Spanish while attending school in Mexico. Successful participants earn three degrees: 1) the Bachelor of Arts degree in liberal arts and sciences with a major in International Business, emphases in French and North America from SDSU; 2) the Baccalaureat en Administration from UQAC; and 3) the Licenciatura en Negocios Internacionales from UABC.

## PanAmerica Triple Degree

PanAmerica is a transnational triple degree program between San Diego State University (SDSU), Universidad de Valparaiso (UV), and Universidad Autonoma de Baja California (UABC). Students may enter the program at any of the three schools and must spend a minimum of one year of study in the Chile, Mexico, and the United States.

Participants in PanAmerica are enrolled in the International Business major at San Diego State University.

In addition to completing 49 units of General Education requirements at SDSU, students in the PanAmerica program must complete 88 units in International Business courses.

Approximately one-half of all of these requirements are completed in Spanish while attending school in Chile and Mexico. Successful participants earn the Bachelor of Arts degree in liberal arts and sciences with a major in International Business, emphases in Spanish and Latin America from SDSU, a Licenciatura en Negocios Internacionales from UV, and a Licenciatura en Negocios Internacionales from UABC.

## Project North America

Project North America is a trinational program designed to increase the educational opportunities for university students to study abroad in the United States, Canada, and Mexico. Students are immersed in the culture and language of each of the NAFTA partners.

Students enroll for one semester each in Canada and in Mexico, taking regular academic courses on transacting business in the host countries. The training and exchange curriculum is integrated into the student's academic plan. Credit is received for all foreign coursework and normal progress toward the degree is maintained

## Montpellier Diploma Program

Students must study one year at the University of Montpellier, France in order to receive the diploma in international business management.

# International Security and Conflict Resolution 

OFFICE: Nasatir Hall 116<br>TELEPHONE: 619-594-3768<br>FAX: 619-594-7302<br>E-MAIL: iscor@mail.sdsu.edu

In the College of Arts and Letters,<br>the College of Professional Studies and Fine Arts, and<br>the College of Sciences

The international security and conflict resolution major is overseen by the Institute for International Security and Conflict Resolution (IISCOR) and administered by the International Security and Conflict Resolution (ISCOR) curriculum committee. The major includes courses offered by faculty in the Colleges of Arts and Letters; Health and Human Services; Professional Studies and Fine Arts; and Sciences.

International security and conflict resolution are seen as involving more than international relations and the more traditional focus on military power and the threat or use of force. They extend into such areas as arms control, economic development, human rights, and resources and the environment.

International security and conflict resolution are also viewed from the domestic context through the lens of homeland security. Interconnections between international and domestic security concerns in the U.S. and other nations are explored.

## Faculty

ISCOR Program Director and Undergraduate Adviser:
Gupta (Political Science); Greb (International Security and Conflict Resolution)
ISCOR Curriculum Committee: Alexseev (Political Science), Baron (History), Freeman (Theatre, Television, and Film),
Frost (Geological Sciences), Ghosh (Women's Studies),
Graubart (Political Science); Guang (Political Science), Gupta (Political Science), Mclllwain (Public Administration and Urban Studies), Sabbadini (Biology), Spitzberg (Communication), Sweedler (Physics), Varadarajan (Political Science),
Youde (Political Science), Zhang (Sociology)

## Offered by International Security and Conflict <br> <br> Resolution

 <br> <br> Resolution}Major in international security and conflict resolution with the B.A. degree in liberal arts and sciences.
Minor in international security and conflict resolution.

## The Hansen Chair in Peace Studies

International Security and Conflict Resolution plays a central role in the administration of the Hansen Chair in Peace Studies, an endowed chair responsible for organizing and coordinating activities focusing on the impact of resolution of various world and regional disputes. Appointees to the chair also serve as a member of the Advisory Board of the Fred J. Hansen Institute for World Peace.

## The Major

International security and conflict resolution is an interdisciplinary program leading to a Bachelor of Arts degree in liberal arts and sciences. The program requires and integrates coursework from natural sciences, social and behavioral sciences, and humanities.

In order to provide both breadth and depth for the courses of study, all students are required to complete a set of courses addressing the major themes of the development of global systems and the nature of conflict and conflict resolution. All students must select an integrated set of courses from different disciplines focused on an area
of specialization related to international security and conflict resolution in global systems, in cooperation, conflict and conflict resolution, or in environment and security.

Those completing the major will be prepared for careers in business, government, international relations or nonprofit organizations at the local, state, national or international level as they relate to international security and conflict resolution. Alternatively, majors will be prepared to pursue graduate or professional studies in a particular discipline or area related to international security and conflict resolution.

## Advising

Students are required to meet with the undergraduate adviser in order to declare the major. All students admitted to the university with a declared major in international security and conflict resolution are urged to meet with the undergraduate adviser during their first semester.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## International Security and Conflict Resolution Major

## With the B.A. Degree in Liberal Arts and Sciences

(Major Code: 22103)
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 ISCOR undergraduate adviser and the Office of Advising and Evaluations.

A minor is not required with this major.
It is strongly recommended that international security and conflict resolution majors consider either a minor or a second major in a foreign language. In addition, international security and conflict resolution majors may wish to obtain language certification in a foreign language or to include a period of study abroad. Many career positions related to an international security and conflict resolution major will require demonstrated competency in a foreign language.

It is also recommended that international security and conflict resolution majors consider either a minor, even a second minor, if a minor in a foreign language is taken, in an area studies programs, e.g., African Studies, Asian Studies, European Studies, Islamic and Arabic Studies, or Latin American Studies. Many career positions related to an international security and conflict resolution major will require a strong background in a particular region and/or culture, perhaps tied in with a specific foreign language. The program also requires at least one preapproved study abroad experience.

Study Abroad Requirement. All international security and conflict resolution majors are required to complete a study abroad experience. To meet this requirement, majors must complete one of the following with the preapproved and written consent of the undergraduate adviser:

1. A CSU Study Abroad Program;
2. An SDSU Exchange Program;
3. An SDSU Semester Abroad Program;
4. An SDSU Study Travel Program;
5. An international security and conflict resolution internship abroad, independent study abroad, or thesis abroad;
6. International Security and Conflict Resolution 450.

See the undergraduate adviser to make arrangements to meet the study abroad requirement.

Preparation for the Major. (24 units) Economics 101, 102; History 101; Political Science 103; Religious Studies 101; and three units from each of the following groups:

1. Anthropology 102 or Geography 102;
2. Comparative Literature 270B, History 100, or Philosophy 101;
3. Economics 201, Political Science 201, Psychology 270 or Sociology 201, Statistics 119 or 250.
Recommended for General Education in the Natural Sciences: In the Life Sciences, Biology 100 or 101; in the Physical Sciences, Chemistry 100, Geography 101 or Physics 107.

Language Requirement. It is strongly recommended that international security and conflict resolution majors consider either a minor or a second major in a foreign language. In addition, international security and conflict resolution majors may wish to obtain language certification in a foreign language. A minimum competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement (excluding American Sign Language). Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include 18 units in International Security and Conflict Resolution 300, 301, 310, 320 and either 495 or 497; Political Science 375; and 18 units from one of the three specializations: Global Systems; Cooperation, Conflict, and Conflict Resolution; or Environment and Security.

Master Plan. A master plan of the courses taken to fulfill the major must be approved by the undergraduate adviser and filed with the Office of Advising and Evaluations.

## Specialization in Global Systems

This specialization focuses on the political, economic, and social characteristics of global systems, which include the study of international relations, comparative regional studies, and internationally mobile populations. An understanding of global systems will provide the context for analyzing issues of international security, cooperation and conflict.

Requirements for specialization. A minimum of 18 units to include Economics 360; six units selected from International Security and Conflict Resolution 575; Economics 330; History 480; Political Science 577; six additional units from courses listed above or from Aerospace Studies 400B; Anthropology $350^{++}$; Asian Studies 570; Chicana and Chicano Studies 306; Economics 365; Geography 312+, $554^{+}$; History 408 or 486 or 512A or 512B; History $543^{++}$or 544B; Political Science 361 or 478 or 479 or 555 or 560 ; Sociology $350^{++}$; Women's Studies $580^{+}$; and three units from Asian Studies 459; Chicana and Chicano Studies 355; History 421, 474, 476, 564; Political Science 363, 364, 566. International Security and Conflict

Resolution $450^{+}$can be substituted for a maximum of one three unit course in this specialization with the approval and written consent of the undergraduate adviser.

## Specialization in Cooperation, Conflict, and Conflict Resolution

This specialization is concerned with exploring the causes, nature, consequences, management, and resolution of conflict. It will consider the psychology, sociology, economics, politics and history of cooperation, conflict and conflict resolution. It will address issues of war and peace, nationalism, civil war, terrorism, human rights, and ethnic hostility as they impact international security.

Requirements for specialization. A minimum of 18 units to include three units of International Security and Conflict Resolution 421; nine units selected from Africana Studies $445^{+}$or Psychology $340^{++}$or Sociology $410^{++}$; Communication $371^{++}$, $555^{++}$; Philosophy $512^{++}$; Political Science 302, 370, $531^{++}$, or Sociology $457^{++}$, or Women's Studies 530+; Political Science 577; Religious Studies 379 or Sociology $338^{+++}$; Social Work 350; Sociology $433^{++}$, $537^{++}$; three units selected from Africana Studies $321^{+}$, 448; American Indian Studies 400; History 486, 512A, 533B, 574; Political Science 363, 364, 566; Sociology $355^{++}$; Women's Studies $375,536^{++}$; and three units selected from International Security and Conflict Resolution 575; Africana Studies 325, 452+; Communication 408; Philosophy 329; Political Science 479; Public Administration $530^{+}$. International Security and Conflict Resolution $450^{+}$can be substituted for a maximum of one three unit course in this specialization with the approval and written consent of the undergraduate adviser.

## Specialization in Environment and Security

Issues related to the environment and the utilization of energy and natural resources are important aspects of international security and often are related to cooperation and conflict between nations and groups within states. The purpose of this specialization is to provide the student with the necessary background to better understand this aspect of international security and the management and resolution of conflict.

Requirements for specialization. A minimum of 18 units to include nine units selected from Biology $315^{++}$; Economics 452; Geography 370+; Physics 301; Political Science 334; Public Health 362; Sociology $350^{++}$; and nine units selected from courses listed above or from International Security and Conflict Resolution 575; Biology $324^{+}$, $354^{+}$; Economics 453, 489; Geography $378^{+}, 570^{+}$, $574^{+}$; History 441; Natural Science 333; Philosophy 329, 332, 333; Public Health 304. International Security and Conflict Resolution $450^{+}$can be substituted for a maximum of one three unit course in this specialization with the approval and written consent of the undergraduate adviser.

+ Course requires prerequisites other than those listed above.
++ Additional prerequisites other than those listed above may be required depending upon lower division courses taken for preparation for major (and/or for General Education).
+++ Consent of instructor.


## International Security and Conflict Resolution Minor

The minor in international security and conflict resolution consists of a minimum of 18 units to include International Security and Conflict Resolution 300, 301, 310, 320, Political Science 375 and three units selected from Anthropology 102, Economics 101, Geography 102, History 101, Political Science 103, or Religious Studies 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 in residence at San Diego State University.

Study Abroad Requirement. All international security and conflict resolution minors are required to complete a study abroad experience. To meet this requirement, minors must complete one of the following with the preapproved and written consent of the undergraduate adviser:

1. A CSU Study Abroad Program;
2. An SDSU Exchange Program;
3. An SDSU Study Abroad Program;
4. An SDSU Study Travel Program;
5. International Security and Conflict Resolution 450.

See the undergraduate adviser to make arrangements to meet the study abroad requirement.

## Courses (ISCOR)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

## ISCOR 300. Global Systems (3) [GE] I

Prerequisite: Nine units of General Education requirements in Foundations, to include three units each in Natural Sciences and Quantitative Reasoning, in Social and Behavioral Sciences, and in Humanities.

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

## ISCOR 301. Conflict and Conflict Resolution (3) [GE] II

Prerequisite: Nine units of General Education requirements in Foundations, to include three units each in Natural Sciences and Quantitative Reasoning, in Social and Behavioral Sciences, and in Humanities.

Conflict resolution as an emerging field; theories of conflict; methods and implications of conflict management including group, institutional, and international level analysis.
ISCOR 310. Our Global Future: Values for Survival (3) [GE] I
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.
ISCOR 320. International Security in the Nuclear Age (3) [GE] II
Prerequisites: Upper division standing. Nine units of General Education requirements in Foundations, to include three units each in Natural Sciences and Quantitative Reasoning, in Social and Behavioral Sciences, and in Humanities.

International security issues from historical, ethical, economic and sociopsychological perspectives, including the security environment after the Cold War and current sources of conflict. The proliferation of weapons of mass destruction, including nuclear weapons is discussed.

## ISCOR 421. Alternative Dispute Resolution:Theory and International Applications (3) I

Prerequisite: Upper division standing.
Theory of collaborative negotiation and mediation, practice of negotiation and mediation skills and techniques, and focus on personal styles of mediation and collaborative negotiating. Emphasis on resolving conflicts on the international level.

## ISCOR 450. Study Abroad in International Security and Conflict Resolution (3)

Prerequisite: Upper division standing. Class Schedule may have other prerequisites.

Selected topics in international security and conflict resolution. Course taught abroad. Potential additional prerequisites and location of course and organizational meetings. May be repeated once with new content. See Class Schedule for specific content. Maximum credit six units.

## ISCOR 495. Internship in International Security and Conflict Resolution (3) I, II

Prerequisites: Senior standing. Nine units of international security and conflict resolution core courses and nine units in selected specialization. Consent of instructor.

Supervised internship of 150 hours in government or nongovernmental agency, office or business in an area directly related to international security and conflict resolution.

## ISCOR 496. Selected Topics in International Security and Conflict Resolution (1-3)

Selected topics in international security and conflict resolution. See Class Schedule for specific content. May be repeated with new content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## ISCOR 497. Thesis in International Security and Conflict Resolution (3) I, II

Prerequisites: Senior standing. Nine units of international security and conflict resolution core courses and nine units in selected specialization. Consent of instructor.

An original and comprehensive written description and analysis of a problem or problem area in international security and conflict resolution.

## ISCOR 499. Special Study (1-3) I, II

Prerequisites: Consent of instructor. Six units of international security and conflict resolution core courses and six units in specialization. Individual study. Maximum credit six units.

## UPPER DIVISION COURSE

## (Also Acceptable for Advanced Degrees)

## ISCOR 575. Homeland Security (3)

Prerequisite: Upper division or graduate standing.
Evaluates components of homeland security. Research and analysis of homeland security policies and laws. Comparisons between homeland security policies and laws of various nations. Links between conflict abroad and homeland security in the United States. (Formerly numbered International Security and Conflict Resolution 475.)

# Italian 

In the Department of European Studies In the College of Arts and Letters

OFFICE: Business Administration 304 TELEPHONE: 619-594-5111<br>FAX: 619-594-8006<br>E-MAIL: italian.coord@sdsu.edu

## Faculty

Emeritus: Vergani, G., Vergani, L.
Chair: Benkov
Assistant Professor: Clò
Lecturers: Kehrenberg, Sylvers

## Offered by the Department of European Studies

Major in European studies, with emphasis in Italian. See European Studies.
Major in international business, with emphasis in Italian. See International Business.
Minor in Italian

## Italian Minor

The minor in Italian consists of a minimum of 15 units taught in Italian, nine units of which must be in upper division Italian courses. Any course taught in English needs department approval to apply to the minor requirements.

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 in residence at San Diego State University.

Students who minor in Italian are strongly encouraged to participate in the California State University International Programs (CSU-IP) and other approved study abroad programs in Italian-speaking countries.

## Interdisciplinary Studies in Three Departments

Students selecting Italian as one of their departments in this major must complete Italian 301, all lower division competency requirements, and at least two upper division Italian courses.

## Language Requirement for the

## B.A. Degree in Liberal Arts and Sciences

Students electing the study of Italian to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Italian 201 or 210 or the equivalent level of achievement. The usual sequence of coursework is Italian 100A, 100B, and 201 or 210. 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 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 or five college quarters, thus fulfilling the language requirement.

## Courses (ITAL)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## 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 for lower division courses taken after successfully completing any upper division Italian course taught in Italian.

No credit will be given when Italian 100A, 100B, 201/210, or 301 are taken concurrently or out of sequence. However, Italian 201 and 210 may be taken in any order or concurrently.

ITAL 100A. Elementary Italian I (5) [GE] 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.

## ITAL 100B. Elementary Italian II (5) [GE] 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.
ITAL 201. Reading and Speaking Italian (3) [GE] I
Prerequisite: Italian 100B or three years of high school Italian. Italian minors and international business majors are encouraged to enroll concurrently in Italian 210 when available. Recommended for students wanting to satisfy the language graduation requirement.

Emphasis on spoken language with readings of cultural material serving as a basis for discussion.

ITAL 210. Intermediate Grammar and Composition (3) [GE] II
Prerequisites: Italian 100B or three years of high school Italian. Italian minors and international business majors are encouraged to enroll concurrently in Italian 201 when available.

Comprehensive survey of Italian grammar at intermediate level. Study of a variety of prose models and practice in writing.

ITAL 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) <br> All upper division Italian courses are taught in Italian unless otherwise noted.

## ITAL 301. Advanced Oral and Written Composition (3) [GE]

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. Italian 301 is not open to students who hold the Italian secondary school diploma

## ITAL 305A. Italian Literature (3) [GE]

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.

## ITAL 305B. Italian Literature

(3)

Prerequisites: Six units of 200-level Italian.
Continuation of Italian 305A from the Renaissance to the present.

## ITAL 421. Italian Civilization <br> (3) [GE]

Prerequisites: Six units of 200-level Italian, and completion of the General Education requirement in Foundations II.C., Humanities.

Major aspects of Italian civilization with emphasis on art, music, history, and cinema.

## ITAL 422. Issues in Italian Studies (3)

Interdisciplinary approach to major themes and figures of Italian culture. Emphasis on social, literary, artistic, and political movements underlying development of contemporary Italy.

## ITAL 424. Italian Cinema (3)

Two lectures and two hours of activity.
Prerequisite: Completion of at least one upper division course in Italian.

Development of Italian cinema. Previewing lectures enhance cultural comprehension. Post-viewing discussions stimulate ideas for written work and final projects. Lectures and discussions in Italian.

## ITAL 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.

## ITAL 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 

OFFICE: Business Administration 327
In the Department of Linguistics and Oriental Languages In the College of Arts and Letters

## Faculty

Chair: Kaplan
Professor: Higurashi
Associate Professor: Kitajima
Lecturer: Yamaga

## Offered by the Department of

 Linguistics and Oriental LanguagesMajor in Japanese.
Minor in Japanese.

## Offered by International Business

Major in international business, with emphasis in Japanese.

## The Major

Japanese is the fastest growing language in U.S. higher education. Due to the interdependence between the U.S. and Japan, as well as Japan's role in the world economy, the importance of Japanese has become evident.

Students who major in Japanese will gain proficiency in Japanese language skills, and the department offers a broad variety of courses designed to prepare majors for a number of careers after graduation. A major in Japanese is also a good preparatory curriculum for graduate programs in such areas as international business, international law, librarianship, public administration, and journalism.

A knowledge of Japanese is a valuable asset in finding positions as interpreters and translators employed by the federal government, the United Nations, international conferences, trade councils, and publishers, as well as internationally oriented companies, government agencies, the press corps, and the tourism industry. It also gives graduates an advantage in looking for positions in Japan in such areas as language teaching, business consulting, or journalism.

## Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters are declaration or change of major.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Japanese Major

With the B.A. Degree in Liberal Arts and Sciences

## (Major Code: 11081)

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 56 units in Japanese courses can apply to the degree.

Students majoring in Japanese must complete a minor in another field to be approved by the departmental adviser in Japanese.

All students with transfer credits must take placement test at the Student Testing, Research and Assessment Office at SDSU.

Note: Speakers of Japanese who have completed compulsory education through junior high school in Japan, or those who pass level one of the Japanese Language Proficiency Test, created and
edited by The Association of International Education and the Japan Foundation, or equivalent, will receive no credit for Japanese 311, 312, 321, 322, 411, 412, 421, and 422.

Preparation for the Major. Japanese 111, 112, 211, and 212. (24 units) A maximum of 24 lower division units of Japanese courses may be used to satisfy degree requirements.

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(\mathrm{W})$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 32 upper division units in Japanese to include Japanese 311, 312, 321, 322, 411, 412, 421, and 422.

## Japanese Minor

The minor in Japanese consists of a minimum of 24 units taught in Japanese, at least 12 units of which must be in upper division Japanese courses. Any course taught in English needs department approval to apply to the minor requirements.

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 in residence at San Diego State University, and a proficiency level equal to that of Japanese 411 must be demonstrated.

## Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Japanese to fulfill the 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 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 or five college quarters, thus fulfilling the language requirement.

## Japanese Language Proficiency Test

The Japanese language proficiency test is taken to assess the proficiency level and to place students at the most appropriate level in the
curriculum of the Japanese language program at San Diego State University. Students who have special backgrounds, and those SDSU students who took Japanese elsewhere, including SDSU students who participated in exchange programs, are required to meet with the program adviser and to take this examination.

Test dates and times are listed in the "Special Tests" section of the Class Schedule.

## Courses (JAPAN)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## 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 lower division courses taken after successfully completing any upper division Japanese course taught in Japanese.

No credit will be given for Japanese 111, 112, 211, 212 taken out of sequence.
JAPAN 111. Elementary Japanese I (6) [GE] 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.)

## JAPAN 112. Elementary Japanese II (6) [GE] 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.)
JAPAN 211. Intermediate Japanese I (6) [GE] 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.)
JAPAN 212. Intermediate Japanese II (6) [GE] 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.

## JAPAN 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.
JAPAN 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 Japanese are taught in Japanese unless otherwise stated.

No credit will be given for Japanese 311, 312, 411, 412 taken out of sequence.

JAPAN 311. Third Year Japanese I (4) [GE] I
Four Lectures and one hour of laboratory.
Prerequisites: Japanese 212 and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Japanese majors.

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.
JAPAN 312. Third Year Japanese II (4) [GE] II
Four lectures and one hour of laboratory.
Prerequisites: Japanese 311 and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Japanese majors.

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.

## JAPAN 321. Advanced Japanese Discourse

(4)

Prerequisite: Japanese 212.
Varieties of Japanese such as broadcasting Japanese, lectures, business negotiations, and ceremonial discourses. Focus on listening comprehension.

JAPAN 322. Advanced Conversation Through Media (4)
Prerequisite: Japanese 311.
Development of advanced conversation skills through understanding and analysis of social and linguistic aspects of modern Japanese drama. Role play, practical vocabulary, and useful expressions; conversation on assigned topics.

## JAPAN 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.

## JAPAN 412. Fourth Year Japanese II

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.

## JAPAN 421. Japanese Literature Through Text and Film

(4)

Prerequisite: Japanese 312.
Japanese literature from earliest times to present. Major works of modern Japanese fiction as a literary genre and their cinematic interpresentation.

## JAPAN 422. Newspaper Reading and Advanced Composition

Prerequisite: Japanese 411.
Advanced readings in general and specialized texts selected from current newspapers and magazines published in Japan. Discussion of text and development of related compositions.

## JAPAN 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.

## JAPAN 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

# Jewish Studies 

## In the College of Arts and Letters

## OFFICE: Arts and Letters 588 <br> TELEPHONE: 619-594-5338

## Faculty

Jewish studies is administered by the Modern Jewish Studies Executive Board of San Diego State University and the program administrator of the Consortial Modern Jewish Major of the California State University system. Faculty assigned to teach courses in modern Jewish studies are drawn from the Departments of English and Comparative Literature; European Studies; History; Linguistics and Oriental Languages; and Religious Studies at San Diego State University and from the Departments of Cinema, Communication Studies, English, History, Humanities, Jewish Studies, Philosophy, Political Science, Psychology, Religious Studies, Sociology, Women's Studies, or World and Comparative Literature at California State University, Chico and San Francisco State University.

## Chair and Undergraduate Adviser: Baron (History)

Consortial Major Administrator:Edelman (CSU, Chico)

## Committee:

Baron (History)
Cayleff (Women's Studies)
Cummins-Lewis (English)
Grossbard-Shechtman (Economics)
Harris (Electrical and Computer Engineering)
Koster (Information and Decision Systems)
Levitt (Religious Studies)
Mclllwain (Public Administration)
Moore (Religious Studies)
Shapovalov (Russian)

## Offered by Jewish Studies

Major in modern Jewish studies with the B.A. degree in Liberal Arts and Sciences.
Minor in Jewish studies.

## The Major

Modern Jewish studies is a multidisciplinary major which provides an understanding of Jewish civilizations as the result of the interactions of Jewish culture, history, politics, and religion with other civilizations in societies where Jews have been the dominant majority population (the first two Jewish commonwealths and the modern state of Israel) and in those of the Diaspora Jewish communities where Jews have been a minority group.

Students will be expected to obtain proficiency in Hebrew. They will develop an understanding of the major events in Jewish history starting with the Biblical Period through the centuries of Diaspora to the Holocaust and the creation of the modern state of Israel. Students will be exposed to main Jewish beliefs, ideas, and traditions which have arisen in these different historical contexts. They will also become familiar with Jewish visual and literary expressions of culture. It is hoped that the study of Jewish civilizations will foster on awareness of how the Jewish experience reflects the universal dynamic of how ethnic, religious, or racial minorities interact with majority societies (i.e., discrimination and persecution, acculturation, integration, syncretism, and resistance to assimilation).

Those completing the major will be prepared for careers or further graduate training in the foreign service, overseas business, education, social services, multi-media productions, visual and literary arts, advocacy organizations, museum work, and the ministry.

## Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible. Students must receive major advising in the first semester they declare Modern Jewish Studies as their major and must do so no later than the first semester of their junior year.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Modern Jewish Studies Major

With the B.A. Degree in Liberal Arts and Sciences

## (Major Code: 15102)

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. Jewish Studies 130 and either Religious Studies 100 or 101 or 103. (6 units)

Language Requirement. Hebrew 101, 102, and 201.
Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units. Fifteen upper division units for the modern Jewish studies major must be taken on the SDSU campus. The remaining courses can be taken via distance education from the CSU Jewish studies consortium or in Israel through the CSU International Programs.

Capstone Course (3 units). Majors enroll in Jewish Studies 496 to participate in a capstone experience which will consist of a week long conference of Jewish studies faculty and majors from universities participating in the consortium for panel discussions, lectures, and seminar meetings.

## Culture and Society Area (9 units)

## San Diego State University

Comparative Literature 405/English 405. The Bible as Literature (3) History 436. Modern Jewish History in Feature Films (3)
History/European Studies 527. The Holocaust in Feature Films (3)
Russian 435. Russian and Central European Jewish Literature (3)

## San Francisco State University

Jewish Studies 340. American Jewish Family and Identity (3)
Jewish Studies/International Relations/Political Science 430. Israeli Democracy, Politics, and Society (3)
Jewish Studies 437/English 533/World and Comparative Literature 437. Holocaust and Literature (3)

## CSU, Chico

Modern Jewish and Israel Studies/Communication Studies 219. Israeli Public Address (3)
Modern Jewish and Israel Studies/Communication Studies/ Sociology 156. Genocide and Mass Persuasion (3)
Modern Jewish and Israel Studies/Sociology 153. The Holocaust: Background, Tragedy, and Aftermath (3)

## History Area (9 units)

## San Diego State University

History 440. The Holocaust and Western Civilization (3)
History 474. The Middle East Since 1500 (3)
History 488. Modern Jewish History (3)
History 574. Arab-Israeli Relations, Past and Present (3)

## San Francisco State University

Jewish Studies/History 317. The Holocaust and Genocide (3)
Jewish Studies 320/History 635. The Jewish Historical Experience (3)
Jewish Studies 633. Modern Jewish History (3)

## CSU, Chico

Modern Jewish and Israel Studies/History 266. The Arab-Israeli Conflict (3)
Modern Jewish and Israel Studies/Political Science 218. Government and Politics of Israel (3)
Political Science 246A. International Relations: Middle East (3)

## Religion and Thought Area (9 units)

## San Diego State University

Hebrew 471. Kabbalah as a Symbolic System (3)
Religious Studies 301. Hebrew Bible (3)
Religious Studies 320. Judaism (3)
Religious Studies 373. Women and the Bible (3)
San Francisco State University
Jewish Studies 310. Jewish Thought and Culture (3)
Jewish Studies 410/Philosophy 514. Spirituality and Jewish Tradition (3)
Jewish Studies 550. Good and Evil: Jewish Ethics and Contemporary Social Problems (3)

## CSU, Chico

Modern Jewish and Israel Studies/Philosophy 135. Philosophy of Judaism (3)
Modern Jewish and Israel Studies/Religious Studies122. Hebrew Bible (Old Testament) (3)
Modern Jewish and Israel Studies/Religious Studies 128. Judaism in America (3)

## Electives (6 units)

Students may take these units on any campus. A maximum of six units outside of Jewish Studies may be counted toward the major, and a major adviser must approve these units. Students may not double count courses taken for the required and core areas for elective use and vice versa. Internet/distance education based courses are available to students for courses at San Francisco State University and CSU, Chico.

## San Diego State University

Jewish Studies 495. Jewish Studies Internship (3) Cr/NC
Jewish Studies 496. Topics in Jewish Studies (1-3)
(May be repeated with new content)
Hebrew 330. Hebrew Discourse and Literature (3)
Hebrew 496. Topics in Hebraic Studies (1-4) (May be repeated with new content) (Maximum credit eight units)
Hebrew 499. Special Study (1-3) (Maximum credit six units)

## San Francisco State University

Jewish Studies/Journalism 311. Facing Each Other: Blacks and Jews in the Popular Media (3)
Jewish Studies/Philosophy 412. Derrida and Jewish Tradition (3)
Jewish Studies/Philosophy 415. The Hebrew Bible (3)
Jewish Studies 416. Special Topics in Jewish Studies (3)
Jewish Studies 445. Jews, Diaspora, and Identity (3)
Jewish Studies/English 451. American Jewish Literature (3)
Jewish Studies/Humanities/Philosophy 501.
Judaism, Christianity, and Islam (3)
Jewish Studies/Creative Writing 509.
Jewish Writers in the American Poetry Archives (3)
Jewish Studies 516/World and Comparative Literature 416/
Classics 416/English 532/Philosophy 551.
Bible and Ethics: The Moral of the Story (3)
Jewish Studies/English/Women's Studies 546.
Twentieth Century American Jewish Women Writers (3)
Jewish Studies 600. Internship (3)
Cinema 406. Jewish Identity in Film (3)
World and Comparative Literature 445. Jewish Literature in Translation (3)
CSU, Chico
Modern Jewish and Israel Studies/Communication Studies/ Sociology 256. Teaching and Communicating the Holocaust and Genocide (3)
Modern Jewish and Israel Studies 289. Internship (1-3) (Must be taken for 3 units)
Modern Jewish and Israel Studies 298C.
Special Topics in Modern Jewish and Israel Studies (1-3)

## Jewish Studies Minor

Dr. Lawrence Baron, Department of History, is adviser for this minor.
The Jewish studies minor 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 Jewish 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.

The minor consists of a minimum of 19-20 units to include seven to eight units selected from Jewish Studies 130 or Religious Studies 100, 101, or 103; and Hebrew 101, 102, 200, or 201; and 12 upper division units selected from Jewish Studies 495, 496; Comparative Literature 405; Hebrew 471, 496; History 436, 440, 488, 574; Religious Studies 301, 320; and other relevant courses may be counted as part of the 12 upper division units taken with the approval of the adviser for Jewish 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 in residence at San Diego State University.

## Courses (JS)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

JS 100. New Perspectives in Jewish Studies (1) Cr/NC I, II
New interpretations of Jewish history, culture, and social issues. Presentations from perspective of various disciplines. Contemporary issues.

## JS 130. The Jewish Heritage (3) [GE]

Hebraic and Jewish influences on the arts, literature, philosophy, and religion of Western civilization. (Formerly numbered Humanities 130.)

## JS 296. Topics in Jewish 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 COURSES (Intended for Undergraduates)

## JS 495. Jewish Studies Internship (3) Cr/NC

Six hours per week at agency and one hour every other week with SDSU supervising faculty member.

Prerequisite: Upper division status and consent of supervising instructor.

Internship with local Jewish service agencies and non-profit organizations. Work to be done under direction of activity supervisor and SDSU instructor. Written project report and internship conferences required every other week with SDSU faculty adviser. Maximum credit six units.

## JS 496. Topics in Jewish Studies (1-3)

Prerequisite: Upper division status.
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## Latin

Refer to "Classics" in this section of the catalog.


TELEPHONE: 619-594-1104
http://latinamericanstudies.sdsu.edu/

In the College of Arts and Letters

## Faculty

Latin American studies is administered by the Latin American Studies Committee. Faculty assigned to teach courses in Latin American studies are drawn from Anthropology, Art, Design, and Art History, Chicana and Chicano Studies, Communication, Comparative Literature, Economics, Geography, History, Political Science, Public Administration and Urban Studies, Sociology, Spanish and Portuguese Languages and Literatures, Women's Studies; and the College of Business Administration.
Chair and Undergraduate Adviser: Gerber
Committee: Amuedo-Dorantes (Economics), Angelelli (Spanish), Ball (Anthropology), Bosco (Geography), Carrilio (Social Work), Carruthers (Political Science), Castleman (History), Coleman (Public Health), Colston (History), Conway (Anthropology), Del Castillo (Chicana and Chicano Studies), DeVos (History), Esbenshade (Sociology), Ganster (Institute for Regional Studies of the Californias), Gerber (Economics), Godoy (Spanish), Graubart (Political Science), Griswold del Castillo (Chicana and Chicano Studies), Herzog (Public Administration and Urban Studies), Hicks (Chicana and Chicano Studies), Ibarra (Chicana and Chicano Studies), Iglesias Prieto (Chicana and Chicano Studies), Kada (Political Science), Lara (Women's Studies), Loveman (Political Science), Lyman-Hager (Language Acquisition Resource Center), Maher (Political Science), Martín-Flores (Spanish), Mathiesen (Social Work), Mattingly (Women's Studies), Moyna (Spanish), Murillo (History), Múzquiz-Guerreiro (Spanish), Nericcio (English and Comparative Literature), Ojeda (Sociology/Chicana and Chicano Studies), Ortiz (Chicana and Chicano Studies), Passananti (History), Pérez (Anthropology),
Rissolo (Anthropology), Robinson (Spanish), Rodriguez (Chicana and Chicano Studies), Rosenberg (Spanish), Ryan (Public Administration), Sneed (Portuguese), Sobo (Anthropology), Strejilevich (Spanish), Talavera (Public Health),
Weeks (Geography), Wilson (Spanish).

## Offered by Latin American Studies

Master of Arts degree in Latin American studies.
Master of Public Health and Master of Arts in Latin American studies degrees (concurrent program).
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, histories, societies, economies, 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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, 201, and 301 or Spanish 101,102, 103, 202, 211, 212 (13-22 units); 12 units selected from Anthropology 102, Economics 101 and 102, Geography 102, History 115, 116, Latin American Studies 101, Political Science 101 and 103.

Language Requirement. The language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units selected from the courses listed below with not less than 12 units in one department and nine in two other departments. At least 33 units must be in courses having Latin American content:

Latin American Studies 366, 495, 498, 540, 550, 555, 560, 580; Anthropology $442^{*}$, 508*, 520*, 582*, 583+*; Art 561*, 562*; Chicana and Chicano Studies 306, 310, 335, 340, 350A, 350B, 355, 375, 376, 380, 400, 498; Communication 371*, 591*; Comparative Literature 445, $561^{+}, 562^{+}, 563^{+}, 577^{+}$, 596+; Economics 360, 365, 464, 561*, 565, 592*; Geography 323, 324, 353, 354+, 381, 507, 509, 554*; History 415, 416, 550, 551, 552, 558; International Security and Conflict Resolution 300, 301, 310, 496+; Political Science 335, 361, 482, 496+, 531, 555, 560, 564, 566, 567*, 568, 577; Portuguese 443*, 499+, 534*, 535*; Public Administration and Urban Studies 420*, 485*, 580*; Public Health 362; Sociology 350, 450*, 457*, 522*, 555*; Spanish 307*, 341*, 342*, 350*, 391*, 406A*-406B*, 448*, 491*, 492*, 493*, 495**, 497*, 502*, 515*, 520*, 549*, 557*; Television, Film, and New Media $363^{+}, 462^{*}$; Women's Studies 310, $512^{*}$, $515^{*}, 530^{*}, 536^{*}$, 565*, 580*, 596+.

Courses numbered 496, 499, and 596 of relevant content in the above departments may be used for the Latin American studies major.

[^25]
## Latin American Studies Major

## (Imperial Valley Campus) <br> 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.

The major in Latin American studies 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 a community college: elementary Spanish; intermediate Spanish or bilingual Spanish; intermediate conversational Spanish or bilingual oral Spanish; advanced conversational Spanish; and 12 units selected from cultural anthropology, cultural 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.

Language Requirement. The language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

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: Anthropology 442; Art 496 (when relevant); Chicana and Chicano Studies 335, 350A, 376; Economics 365, 464, 496 (when relevant); Geography 323, 324, 496 (when relevant); History 415, 416, 496 (when relevant), 550, 551, 552, 558; Political Science 566, 567, 568; Sociology 350, 450; Spanish 406A-406B, 515; 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 103 or Portuguese 101 or the equivalent. No more than six units may be drawn from any one department's or program's offerings. Units may be selected from among the following:

Latin American Studies 101, 366, 495, 498, 540, 550, 555, 560, 580; Anthropology 442, 582 (when relevant); Chicana and Chicano Studies 306, 310, 335, 340, 350A, 355, 375, 376, 380, 498; Comparative Literature 445; Economics 360, 365, 464, 565, 592; Geography 323, 324; History 115, 116, 415, 416, 550, 551, 552, 558; Music 596; Political Science 361, 566, 567, 568, 577; Portuguese 535; Public Administration 580 (when relevant); Sociology 350 (when relevant), 450 (when relevant), 555; Spanish 341*, 342*, 406A-406B, 515, 520; Television, Film, and New Media 363 (when relevant), 562; 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 in residence 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 (LATAM)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## LATAM 101. Latin American Heritage (3)

Introduction to Latin American cultures and peoples from an interdisciplinary perspective.

## LATAM 110. Elementary Mixtec I (4) [GE]

Mixtec language and culture. Pronunciation, oral practice, reading, and listening comprehension and essentials of grammar in a communicative context and through task-based activities. Not open to students who have completed three years of high school Mixtec unless the third course was completed five or more years ago. Not open to students with credit in Latin American Studies 111.

## LATAM 111. Elementary Mixtec II (4) [GE]

Prerequisite: Latin American Studies 110.
Continuation of Latin American Studies 110. Development of increased proficiency in Mixtec language and culture. Pronunciation, oral practice, listening comprehension, reading and writing, and grammar in a communicative context and through task-based activities. Not open to students who have completed four years of high school Mixtec unless the fourth course was completed five or more years ago.

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

## LATAM 366. Latin American Politics (3)

(Same course as Political Science 366.)
Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Introduction to Latin American Politics. Knowledge of political change and political systems in Latin America, viewed historically and comparatively, using concepts and theories applicable to more general political analysis.

## LATAM 495. Latin American Studies Internship (3) $\mathbf{C r} / \mathrm{NC}$ I, II

Prerequisite: Six upper division units in Latin American content courses.

Opportunity for Latin American studies undergraduates to implement area specialist skills. Placement with a local organization with legal, commercial, or social service functions whose activities are primarily Latin American related.

## LATAM 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.

## LATAM 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.
LATAM 499. Special Study (1-3)
Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

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

LATAM 540. History, Society, and Ecology of Baja Peninsula (3)
Prerequisites: Latin American Studies 101; Geography 102; Anthropology 102 or Political Science 103.

Historical and social anthropology of Baja Peninsula, current issues in socio-economy of a small region, relations between human activity and natural environment, flora and fauna of region, and challenges to ecological preservation.

## LATAM 550. Mexican-US Border from a Latin American Perspective (3)

Prerequisites: Six upper division units with Latin American content. Spanish proficiency.

Multidisciplinary analysis of Mexican-US border region.

## LATAM 555. Women's Rights and Citizenship in Latin America (3)

Prerequisites: Latin American Studies 101; Political Science 103 or Women's Studies 101.

Women's roles in war, counter-insurgency and human rights movements of 1970s and 1980s; women and social movements; female citizenship and socio-political participation in Latin American countries.

## LATAM 560. Latin America After World War II (3)

Prerequisites: Latin American Studies 101; History 115, 116; and Political Science 566.

Major socioeconomic and political changes in Latin America since World War II and inter-American relations during the same period. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

## LATAM 576. Frida Kahlo and Her Circle: Mexican Artists and the Challenge of Modernity

Prerequisite: Upper division standing
Work and life of Frida Kahlo, her influence on artists and thinkers who shared her world, and influence she continues to have on art of Mexico and the U.S.

## LATAM 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.

GRADUATE COURSES
Refer to the Graduate Bulletin.


# Liberal Studies 

## In the Division of Undergraduate Studies

## Faculty

Coordinator: Roeder, P. (Division of Undergraduate Studies)
Allison (English), Bowers (Mathematics), Colston (History), Cummins-Lewis (English), Egipto (Linguistics), Goldberg (Physics), Griswold (English), Larlham, M. (Theatre, Television, and Film), McDonald (Music and Dance), Riggs (Geological Sciences)
Committee: Anderson, B. (Theatre, Television, and Film), Bowers (Mathematics), Indermill (Liberal Studies Advising), McDonald (Music and Dance), Roeder, P. (Natural Science), Roy (History), Samraj (Linguistics)

## Offered by the Division

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

## The Major

The liberal studies major is designed for students who intend to teach at the elementary or middle school level. For details on the traditional, integrated, and middle school options, see below. Individuals learn to think critically, analyze evidence thoughtfully, and write clearly and effectively. Graduates develop a rich understanding of the major subject areas-literature, history, mathematics, science, and the visual and performing arts-including how practitioners create and evaluate new knowledge. They learn to identify and understand the developmental stages of children and to observe, interview, and tutor children effectively in classroom settings.

The liberal studies major satisfies the Senate Bill 2042 requirements for Elementary Subject Matter programs approved by the California Commission on Teacher Credentialing in September 2001. The major includes a number of courses specifically designed for future elementary teachers including children's literature, linguistics, mathematics, inquiry-based science, early world and United States/California history for teachers, hands-on art and performing arts courses, physical education of children, and child development. The content covered in the courses closely matches the content that teachers will ultimately have to teach in the schools as well as the content assessed by the California Subject Examination for Teachers-Multiple Subject (CSET-MS) examination.

The program includes a specially designed core of courses. During the second or third semesters, students take Education 200, Teaching as a Profession. In this course, students complete 30 hours of fieldwork which they critically assess issues related to teaching in culturally and linguistically diverse school settings, learn about career paths, and evaluate their occupational fitness for the teaching profession. During the junior year, students take Liberal Studies 300, Introduction to Liberal Studies, and complete an additional 30 hours of fieldwork. Students focus both on the nature of the disciplines-goals, processes, and evaluation-as well as how the knowledge being learned will ultimately be used in the classroom. Throughout the first three years, students work on critical thinking, research, and writing skills. During the senior year, students complete Liberal Studies 498, Assessment in Liberal Studies. This course supports students as they complete the liberal studies writing, research, and reflection assessments; the CSET; and the application process for their credential

## OFFICE: Liberal Studies Office (Administration 103) TELEPHONE: 619-594-0597 http://www-rohan.sdsu.edu/dept/libst

program. They are strongly encouraged to save both syllabi and written work (examinations, projects, and other materials) from all their courses in preparation for the CSET and senior-level assessment.

## Programs

## Traditional Program

The traditional program is designed for (1) students who wish to teach elementary school, especially the upper grades (4-6); (2) students who wish to complete their credential program elsewhere, and (3) students who decide not to pursue a credential. Students are able to complete the traditional major and specialization in eight semesters and, if desired, a postbaccalaureate credential program during a ninth and tenth semester.

The specialization consists of 12 units in a given discipline. In some specializations, one course from the upper division major may be double counted. See the specific requirements below. Specializations focus on the major subject areas taught in the schools plus human development. Thus, graduates can help each other once they begin teaching.

## Integrated Program

The integrated program is designed for students who wish to teach elementary school, especially the primary grades (K-3). Students who qualify are able to complete the liberal studies major and credential coursework in nine semesters (135 units). The ninth semester may be completed at the postbaccalaureate level.

The integrated program specialization consists of (1) nine units of HIST-3, HIST-4, and HIST-5, which are double counted in the major and specialization, (2) three units (one course) in the history of one of the subject areas, and (3) nine units of credential coursework. (See specializations below.)

## Middle School Option

The middle school option is designed for students who want the flexibility of being able to teach either at the elementary or middle school level. Because of the shortage of teachers with single subject credentials in mathematics and science, liberal studies graduates have been especially successful in obtaining middle school positions in these two subject areas.

Students complete the traditional liberal studies major, one of the specializations required for the traditional program (see above), plus additional coursework in the same subject area sufficient to qualify for a 32-unit Introductory Subject Matter Authorization from the Commission on Teacher Credentialing. If students plan carefully, they are able to finish this special version of the liberal studies major in approximately eight semesters and the postbaccalaureate credential program during a ninth and tenth semester. Advising sheets are available at the Liberal Studies office and on the Web site.

## Advising

Advising is extremely important because students must make numerous decisions that include choosing which specialization/credential option to pursue, selecting appropriate courses, and preparing for the senior level assessments. See the Web site for current information, advising procedures, and e-mail questions. Information about SDSU credential programs and financial aid opportunities is available at the College of Education, Office of Advising and Recruitment, BA-259, 619-594-6320.

## Impacted Program

The liberal studies major is an impacted program. To be admitted to the liberal studies major, students must meet the following criteria:
a. Complete all courses listed in Preparation for the Major sections for the liberal studies major;
b. Complete with a C or higher: a certified Area A1 Oral Communication course; a certified Area A3 Intermediate Composition and Critical Thinking course; Exercise and Nutritional Sciences 241A and 241B; and Mathematics 210 and 211. These courses can not be taken for credit/no credit (CR/NC);
c. Earn a passing score on the SDSU Mathematics Departmental Placement Examination (Part LS);
d. Complete a minimum of 60 transferable semester units;
e. Have a cumulative GPA of 2.50 or higher;
f. Declare the liberal studies major by following the procedures explained on the Web site.
To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## Courses (LIB S)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## UPPER DIVISION COURSES (Intended for Undergraduates)

LIB S 300. Introduction to Liberal Studies (3)
Prerequisite: Preparation for the major completed or to be completed concurrently.

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.

## LIB S 498. Assessment in Liberal Studies (0.5-1) Cr/NC

Prerequisites: Liberal Studies 300 and successful completion of one upper division semester of the liberal studies major. Not open to premajors.

Senior assessment including reflections upon educational experiences in each subject area and role as future educator. Students will explore differences between subject areas and reflect upon learning and teaching.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Liberal Studies Major

## With the B.A. Degree in Applied Arts and Sciences

## (Major Code: 49015)

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."

Completion of the liberal studies major fulfills General Education requirements.

A minor is not required for this major.
Cultural Perspective Requirement. Liberal studies majors are strongly encouraged to include at least one course that approaches its subject from an ethnic perspective. Consider the courses under LANG-1, 2, or 3 or HIST-2 or -3 that are indicated by a star (*).

Preparation for the Major. (56-56.5 units)

## Language and Literature

LANG-1. Complete with a grade of C or higher: Three units selected from Africana Studies 140*, Chicana and Chicano Studies $111 A^{*}$, Communication $103^{1}$.

LANG-2. Three units selected from Africana Studies 120*; Chicana and Chicano Studies 111B*; English 100; Linguistics 100; Rhetoric and Writing Studies 100, 101².

LANG-3. Complete with a grade of C or higher: Three units selected from Africana Studies 200*, Chicana and Chicano Studies 200*, English 200; Linguistics 200, Philosophy 110, Rhetoric and Writing Studies $200^{3}$.

LANG-4. Three units selected from Comparative Literature 270A, 270B; English 220.
${ }^{1}$ Upper division transfer students fulfill this area with any certified oral communication (A1) transfer course.
2 Upper division transfer students fulfill this area with any certified written communication (A2) transfer course.
${ }^{3}$ Upper division transfer students fulfill this area with any certified critical thinking (A3) transfer course.

History and Social Science
HIST-1. Geography 106.
HIST-2. Three units selected from Africana Studies 170A*, Chicana and Chicano Studies 141A*, History 109.

HIST-3. Three units selected from Africana Studies 170B* (recommended), Chicana and Chicano Studies 141B* (recommended), History 110, Political Science 102.

HIST-4. History 100.

## Mathematics

MATH-1. Complete with a grade of C or higher: Mathematics 210.
MATH-2. Mathematics Education 212 (1-1.5 units). (Recommended: Taken concurrently with Mathematics 210.)

MATH-3. Complete with a grade of C or higher: Mathematics 211.

## Science

SCI-1. Three units (or four units including laboratory) selected from Geological Sciences 104 and 101 (laboratory).

SCI-2. Three units (or four units including laboratory) selected from Biology 203 (4 units; includes laboratory, recommended); Biology 100 and 100L (laboratory).

SCI-3. Laboratory from either category SCI-1 or SCI-2.

## Visual and Performing Arts

VPA-1. Three units selected from Art 157 or Theatre 120.
VPA-2. Three units selected from Dance 102 or Music 102.
Development, Health, and Physical Education
DHP-1. Complete with a grade of C or higher: Exercise and Nutritional Sciences 241A (1 unit) and 241B (1 unit).

DHP-2. Health: Public Health 101 (3 units) or Health and Human Services 280 (1 unit).

DHP-3. Three to six units selected from: General Studies 130 (3 units); Psychology 101 and Psychology 230 (six units) ${ }^{1}$.
${ }^{1}$ Upper division transfer students may substitute a transfer course designated as CAN FCS 14 or transfer course equivalent to SDSU course Child and Family Development 270 in lieu of General Studies 130.

## Education

ED-1. Education 200.

## General Education Humanities

HUM-1. One course selected as follows:

1) If the equivalent of the second college-level semester or higher of one foreign language has not been satisfied by high school coursework ${ }^{\top}$, by examination, or by petition, select three or more units from Arabic 102; Chinese 102; Filipino 102; French 100B; German 100B; Hebrew 102; Italian 100B; Japanese 112; Latin American Studies 111; Persian 102; Portuguese 201; Russian 100B; Spanish 102; Speech, Language, and Hearing Sciences 259.
2) If the equivalent of the second semester of one foreign language has been satisfied by one of the methods described above, select three or more units from Philosophy 101, Religious Studies 101 or 103, a beginning level foreign language course in a different language (than the one above), or a more advanced level foreign language course in the same language (as the one above) ${ }^{2}$.
${ }^{1}$ Passed third-year level of a high school foreign language.
${ }^{2}$ See "Graduation Requirements: General Education II. Foundations: Foreign Language" in the General Catalog. Discuss with an adviser.
Physical Science Elective:(3 units)
SCI-4. Three units selected from Chemistry 308 (recommended) or Natural Science 100.

Graduation Writing Assessment Requirement. Students must have fulfilled the Writing Proficiency Assessment with a score of 8 or above before taking English 306W and earn a grade of C (2.0) or higher. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Upper Division Major. (37.5-38.5 upper division units)

## Language and Literature

LANG-5. Linguistics 420.
LANG-6. Linguistics 452.
LANG-7. English 306W. (Passing with a C or higher satisfies the graduation writing assessment requirement.)

LANG-8. English 306A. (English 306A and 306W must be taken concurrently.)

## History and Social Science

HIST-5. History 411.
HIST-6. History 413.

## Mathematics

MATH-4. Mathematics 311 (2 units) ${ }^{1}$.
MATH-5. Mathematics 315 (2 units) ${ }^{1}$.
${ }^{1}$ Students must pass the Mathematics Departmental Placement Examination Part LS prior to enrolling in Mathematics 311 or 315. Students who do not pass are required to complete Mathematics 215 (1 unit).

## Science

SCI-5. Natural Science 412.
Visual and Performing Arts
VPA-3 and VPA-4. Choose one of the following options:
Option I: If Art 157 and Music 102 lower division, choose Art 387 or Music 343, plus three additional units selected from Art 387, Music 343, Theatre 310, or Theatre 315.

Option II: If Art 157 and Dance 102, choose Art 387 or Dance 302 plus three additional units selected from Art 387, Dance 302, Theatre 310, or Theatre 315.

Option III: If Theatre 120 and Music 102 lower division, choose Art 387 plus three additional units selected from Music 343, Theatre 310, or Theatre 315.

Option IV: If Theatre 120 and Dance 102 lower division, choose Art 387 plus three additional units selected from Dance 302, Theatre 310, or Theatre 315.

## Development, Health, and Physical Education

DHP-4. Two to three units selected from Child and Family Development 375A (2 units) or Psychology 380 (3 units) ${ }^{1}$.
${ }^{1}$ Prerequisite: Psychology 101.

## Nature of the Disciplines and Assessment

LS-1. Liberal Studies 300 (3 units).
LS-2. Liberal Studies 498 ( 0.5 units). Passing the senior assessment Liberal Studies 498 is a graduation requirement for the major.

Specialization (9-13 units) [Certain specializations include lower division courses.]

All students shall complete a specialization. For the literature, linguistics, social science, mathematics, science, art, music, theatre, and human development specializations, one course from the major may double count both in the major and specialization. If a course may double count, the requirement number from the major is listed in parentheses following the course. Thus, "English 306A (LANG-8 in major)" indicates that English 306A satisfies both requirement LANG8 in the major and the children's literature requirement in the specialization; only nine additional units are needed to complete the specialization.

Prerequisites are enforced: Students should choose lower division courses carefully.

A minor may not be substituted for a specialization.
Complete one of the following specializations (listed by subject area).

## 1. LITERATURE

Prerequisite: LANG-4 in preparation for the major.
Children's Literature: English 306A (LANG-8 in major).
American Ethnic Literature: Three units selected from Africana Studies 365; American Indian Studies 430; Chicana and Chicano Studies 335; English 519, 520; Women's Studies 352.

Shakespeare: Three units selected from English 302, 533.
General Literature: Three units selected from English 409, 410, 502, 503, 523, 524.

## 2. LINGUISTICS+

Prerequisite: LANG-5 in the major.
Language Acquisition: Linguistics 452 (LANG-6 in major).
Depth: Six units selected from Linguistics 524, 551, 552, 553, and either 430 or 530 .

Current Issues and Applications: Linguistics 550.

+ For information on the Applied Linguistics and English as a Second
Language (ESL) Certificate, see the linguistics section of the catalog.


## 3. SPANISH

(12 upper division units required; extra prerequisites may be required.)

Native Speakers+ (Defined as high school graduates of Spanishspeaking countries.) Native speakers are not eligible for the Spanish specialization.
U.S. Hispanics+ (Defined as students who scored high enough on the Spanish Diagnostic Placement Examination to be placed in Spanish 282.)

Prerequisite: Spanish 282. (Will be waived if score on exam is high enough to be placed in Spanish 381.)

Foundations and Inquiry: Spanish 350 and 381.
Culture or Linguistics: Three units selected from Spanish 340, 341, 342, 448.

Literature: Three units selected from Spanish 405A, 405B, 406A, 406B.

English Speakers+ (Defined as native English speakers and other students who cannot pass the Spanish Diagnostic Placement Examination.)

Prerequisites: Spanish 202, 212.
Foundations and Inquiry: Spanish 301, 302, and 350.
Literature: Three units selected from Spanish 405A, 405B, 406A, 406B.

+ Contact the Department of Policy Studies in Language and Cross-Cultural Education about the Spanish Language Proficiency and Cultural Awareness Examination, a prerequisite for the bilingual credential program.


## 4. SOCIAL SCIENCE

Prerequisites: HIST-1, HIST-2, HIST-3, and HIST-4 in preparation for the major.

Foundations and Inquiry: History 413 (HIST-6 in major).
Breadth and Current Issues: Three units selected from History 410, 412.

California: History 445.
Depth: Three units selected from Geography 321 or Political Science 320 (not allowed after Political Science 102).

## 5. ETHNIC STUDIES

(12 upper division units required)
Prerequisites: HIST-1, HIST-2, HIST-3, and HIST-4 in preparation for the major

Foundations and Inquiry: Sociology 355.
Breadth, Depth, and Application: Nine units to include at least one course from each category.
A. Ethnic Community and Identity: Africana Studies 471A, 471B; American Indian Studies 320, 440, 470; Chicana and Chicano Studies 320, 350B, 376, History 422.
B. Ethnic Politics and Community Issues: Africana Studies 320, 321, 420, 452; American Indian Studies 480; Asian Studies 460; Chicana and Chicano Studies 301, 480.

## 6. MATHEMATICS

(Extra prerequisite may be required.)
Prerequisites: MATH-1, MATH-2, and MATH-3 in preparation for the major; plus Mathematics 141 with a C or better OR a passing score on the Mathematics Departmental Precalculus Proficiency Examination.

Foundations and Inquiry: Mathematics 311 and 315 (MATH-4 and MATH-5 in the major).

Calculus: Mathematics 150.
Depth: Three units selected from Mathematics 302, 303.
Depth and Application: Mathematics 413.

## 7. SCIENCE

(One additional upper division unit required.)
Prerequisites: $\mathrm{SCl}-1$ and $\mathrm{SCl}-2$ in preparation for the major.
Foundations and Inquiry: Natural Science 412 (SCI-5 in major) (4 units)

Breadth and Current Issues: Select three units from Biology 315, 319, 324, 327.

Depth and Application: Three units selected from Astronomy 310; Chemistry 300; Geological Sciences 301, 303; Oceanography 320; Physics 301.

Inquiry and Research on an Environmental Problem: Geological Sciences 412 (4 units).

## 8. ART

Prerequisites: VPA-1 in preparation for the major plus Art 259.
Foundations and Inquiry: Art 387 (VPA-3 in major)
Depth: Complete nine units from the Art History Track or Studio Arts Track.

Art History Track: Art 557, 558, 559, 560, 564*, 565*, 569*, 570*, 573A, 573B, 575, 577.

Studio Arts Track: Students with sufficient lower division coursework may complete nine upper-division units in studio arts to be approved in advance by the School of Art, Design, and Art History and the liberal studies adviser.

* Recommend one course with a non-western emphasis.


## 9. MUSIC

Prerequisite: Music 102 (VPA-2).
Foundations: Music 110, 115, 240.
Inquiry: Music 343 (VPA-3).
Breadth and Current Issues: Music 345.
Great Music: Three units selected from Africana Studies 385; Chicana and Chicano Studies 310; Music 351A, 351B, 351D.

Performance: Three units from Music 369+, 170/370+, 174/374+, $175 / 375+, 177 / 377+, 180 / 380+, 185 / 385+, 186 / 386+, 189 / 389+$, 445++.

+ Consent of instructor required. Previous experience playing an instrument required except for Music 185/385 and 186/386.
++ For students who do not already play an instrument or sing, Music 445 may be completed three times with different content.


## 10. THEATRE

Prerequisite: VPA-1 in preparation for the major.
Foundations and Inquiry: Theatre 310 (VPA-3 in major)
Breadth and Current Issues: Theatre 315 (may not double count in the major)

Depth and Application: Theatre 510 and 580.

## 11. PHYSICAL EDUCATION

(10-12 upper division units required.)
Prerequisites: DHP-3 in preparation for the major
Foundations and Inquiry: Exercise and Nutritional Sciences 241A and 241B (2 units) (DHP-1 in preparation for the major); Exercise and Nutritional Sciences 301+.

Breadth and Current Issues: Exercise and Nutritional Sciences 348+++.

Depth: Three units selected from Dance 102 (may not double count in Preparation for the Major) OR Exercise and Nutritional Sciences $335+$ ( 2 units) plus one unit of Dance 100A, 100C, 100E, 100G, 100I OR Exercise and Nutritional Sciences 104A-104B, 108A-108B, 109A-109B, 110A-110B, 111A-111B, 118A-118B, 120A-120B, 125, 130, 137A, 141A-141B.

Application: Exercise and Nutritional Sciences 398+ (1 unit)
Pedagogy: Exercise and Nutritional Sciences 347A++ (2 units), $347 \mathrm{~B}++$ (1 unit).

+ Prerequisite: Exercise and Nutritional Sciences 241A, 241B.
++ Prerequisite: Exercise and Nutritional Sciences 301.
+++ Prerequisite: Exercise and Nutritional Sciences 347A, 347B.


## 12. HUMAN DEVELOPMENT

(Extra prerequisite may be required; may include one additional upper division unit.)

Prerequisites: DHP-3 in preparation for the major and DHP-4 in the major.

Foundation: Psychology 101.
Depth: Psychology 331.
Special Populations: Nine units selected from Child and Family Development 537+; General Studies 420; Psychology 333; Special Education 500; Special Education 501 and 502 (4 units); Speech, Language, and Hearing Sciences 350.

[^26]
## 13. INTEGRATED PROGRAM SPECIALIZATION

(Three upper division and nine credential units required beyond the units required in preparation for the major and the major.)

Open only to students who qualify for admission to the SDSU Integrated Credential Program.

Prerequisites: HIST-1 and HIST-2 in preparation for the major.
Foundations: HIST-3 course (HIST-3 in preparation for the major) and History 100 (HIST-4 in preparation for the major), and History 413 (HIST-5 in major).

Depth: Three units selected from Africana Studies 385, 471A; American Indian Studies 440; Art $557^{1}, 560^{1}, 577^{2}$; Chicana and Chicano Studies 310, 350B; English 523, 524; History 410, 412, 445; Linguistics 410; Mathematics 3033; Natural Science 315; Music 351A, 351D; Theatre 460B.

Credential: Nine units selected from Teacher Education 910A, 910B, 910C, 923, 930.

[^27]OFFICE: Business Administration 327
TELEPHONE: 619-594-5268
FAX: 619-594-4877
http://www-rohan.sdsu.edu/dept/linguist/index.html

## Faculty

Emeritus: Bar-Lev, Donahue, Elgin, Frey, Johns, Seright, Webb Chair: Kaplan
Professors: Choi, Gawron, Higurashi, Kaplan, Robinson, Underhill
Associate Professors: Kitajima, Poole, Samraj, Zhang
Assistant Professors: Csomay, Malouf, Wu

## 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. Minor in linguistics.
Certificate in applied linguistics and English as a second
language (ESL), basic and advanced.

## 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, communication, ethnic studies, a foreign language, history, journalism, literature, philosophy, psychology, public administration and urban studies, sociology, and speech, language, and hearing sciences.

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.

## Linguistics

## In the College of Arts and Letters

## Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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, communication, ethnic studies, a foreign language, history, journalism, literature, philosophy, psychology, public administration and urban studies, sociology, and speech, language, and hearing sciences.

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.

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."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or Linguistics 305 W or 396 W , or Rhetoric and Writing Studies 305W or 500W with a grade of $C(2.0)$ or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units is required: at least 21 of these must be in Linguistics (and those 21 must include Linguistics 420 or 520 and 521,522 , and 525); with the approval of the adviser, up to six units may be selected from related fields.

## Minor in Linguistics

The minor in linguistics consists of a minimum of 15 units, 12 of which must be upper division and at least 12 of which must be linguistics courses selected under the guidance and with the approval of the adviser. Linguistics 101 or 420 or 520 is required. Linguistics 100, 200, and 305 W may not be applied to the minor. No more than three units may be applied to the minor from Anthropology 410, Chinese 352, Communication 530, German 505, Philosophy 531, Spanish 448.

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 in residence at San Diego State University.

## Basic Certificate in Applied Linguistics and English as a Second Language (ESL)

The Department of Linguistics and Oriental Languages offers a basic and advanced Certificate in Applied Linguistics and English as a Second Language (ESL). The basic certificate requires 15 units to include

Introductory Linguistics: Linguistics 420 or 520;
Language Acquisition: Linguistics 452, 454, 552, or 554;
Language Variation: Linguistics 524 or 551;
ESL Teaching: Linguistics 550; and
Practical Issues/English Grammar: Linguistics 530 or 555.
Students must obtain a "C" or better in each of the certificate courses. 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 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 or the major in liberal studies (including the linguistics specialization) but may not be counted toward the minor in linguistics.

Refer to the Graduate Bulletin for information on the advanced certificate.

## Courses (LING)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## General

LING 94. Developmental Writing for International or Bilingual Students (3) Cr/NC/RP I, II
(Same course as Rhetoric and Writing Studies 94.)
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 writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of "RP." Students receiving an "RP" should re-enroll in Rhetoric and Writing Studies 94 or Linguistics 94.
LING 101. Introduction to Language (3) [GE]
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, excluding Linguistics 305W.

LING 241. Foreign Language Experiences (1-2)
Study of one to two languages chosen by individual students, with focus on spontaneous speaking abilities and methodologies. Specially recommended for learning-disabled students and for study of languages otherwise unavailable. May be repeated with new content for maximum credit three units. Not acceptable for General Education credit.

## LING 242. Foreign Language Experiences (3) [GE]

Study of one to three languages chosen by individual students, with focus on spontaneous speaking abilities and methodologies. Specially recommended for learning-disabled students and for study of languages otherwise unavailable.

## LING 250. Directed Language Study <br> (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.

## LING 253. Grammar and Usage for Writers (2)

(Same course as Rhetoric and Writing Studies 253.)
Prerequisite: Passage of EPT or transfer writing assessment.
Instruction in sentence structure with attention to integrating sentences into their logical and rhetorical contexts. Identifying and understanding source of sentence-level writing problems.

LING 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

## LING 100. English Composition for International

 Students (3) [GE]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 Studies 92A or 92B or 97, 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 Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Rhetoric and Writing Studies 100 or 101 , or higher-numbered composition course.

## LING 200. Advanced English for International Students (3) [GE]

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, Chicana and Chicano Studies 200, English 200, General Studies 260D, or Rhetoric and Writing Studies 200.

## LING 281. Academic Reading and Writing for Second Language Learners and International Students (3)

(Same course as Rhetoric and Writing Studies 281.)
Prerequisite: Open only to students who qualify for Rhetoric and Writing Studies 280 and whose first language is not English.

Academic prose, emphasizing purposes, structures, and styles of academic English writing. Designed to improve students' ability to plan, draft, revise, and edit essays, as well as to read and analyze complex academic texts. Additional emphasis on grammatical features of English relevant to the second language population.

## UPPER DIVISION COURSES (Intended for Undergraduates)

LING 305W. Advanced Composition for International Students (3)
Prerequisite: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. 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 completely with written English on advanced university levels. This course may not be used toward the major or minor in linguistics.

## LING 310. English Word Origins (3)

Traces English word-origins, exposing the romance of their story, while showing how linguistic analysis can help participants to increase their mastery of English vocabulary. Guides for interpreting new or specialized terminology.

## LING 311. Writing Systems of the World (3)

Alphabets and other writing systems around the world, from "logographic" (Sumerian, Egyptian, Mayan, Chinese, Japanese) to syllabary (Japanese, Cherokee), consonantal alphabet or abjad (Hebrew, Arabic), to alphabet (Greek, Roman, etc.). Relevance of writing to thought.

## LING 342. Exercises in Foreign Language Learning (3)

Prerequisites: Two semesters in any foreign language.
Exercises in foreign language learning with a variety of language structures, as a way of exploring nature of foreign language learning.

## LING 344. Language and Gender (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Relationship between language and gender: language variation according to gender, discourse structure and same- and cross-sex interactions; cross-cultural research linking language and gender. Qualitative and quantitative linguistics analyses of language data.

## LING 350. Language and Politics (3)

Linguistics devices used to persuade in politics. Differences between what is literally said and what is actually conveyed in political discourse. How political speakers and writers use grammar, sound structure, and vocabulary to persuade.

## LING 352. Language and Advertising (3)

Linguistic devices used to persuade in advertising. Differences between what is literally said and what is actually conveyed in advertisements. How advertisers use the grammar, sound structure, and vocabulary of languages (especially English) to persuade audiences.

## LING 353. Language and Law (3)

Legal language; reading legal cases; linguistic and legal analysis of contracts, statutes, constitutions, other 'operative' texts; language crimes and forensic linguistics; language and First Amendment law; language under law (minority language, dialect rights).

## LING 354. Language and Computers (3) [GE]

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.

## LING 396W. Writing Proficiency (1)

Prerequisite: Consent of instructor. Limited to linguistics majors. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of
completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

Upper division writing course taken in conjunction with any 500numbered 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.

## LING 410. History of English (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

The history of English and its present day use.

## LING 420. Linguistics and English (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

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.

## LING 430. English Grammar for Prospective Teachers (3) <br> Prerequisites: Linguistics 101 and upper division standing.

Core grammatical concepts and facts of English grammar. Parts of speech; grammatical relations; word, sentence, discourse structure. Focus on standard written English. Of special interest to prospective secondary school teachers.

## LING 452. Language Acquisition (3)

Prerequisite: Linguistics 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.

## LING 453. Language Issues in the Schools (3)

Prerequisite: Linguistics 420.
Linguistic minorities and dialect variation in interethnic communication. Language development from a socio-interactionist perspective. Development of discourse and literacy, and their underlying cognitive and linguistic foundations.

## LING 454. Second Language Acquisition

Prerequisite: Linguistics 101 or 420.
Basic theory and research in second language acquisition. Nature of interlanguage in second language learning. Influence of native language transfer, interaction, sociocultural factors on second language acquisition. Applications of second language research to teaching.
LING 457. Community-Based Language Fieldwork (1)
Two hours of activity.
Prerequisite: Concurrent registration in upper division course requiring term paper on language behavior (e.g. Linguistics 452).

Fieldwork in language use in community setting. Students observe, keep field notes, analyze language behavior (e.g. speaking, reading, writing, listening).

## LING 460. American Indian Languages (3) [GE]

(Same course as American Indian Studies 460.)
Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Structures of American Indian languages. Language families of North America, history, and present circumstances. Interdependence of language and culture, differences in ways of speaking. Issues of language endangerment, language death, language maintenance, and language revitalization.

## LING 496. Experimental Topics in Linguistics (1-4)

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.

LING 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)

LING 505. Writing for Graduate Students (3)
Prerequisite: Conditional or classified admission to an SDSU graduate program or undergraduates with consent of instructor.

Conventions of scholarly writing appropriate for student papers, theses, or academic journal articles. Development of research questions and literature reviews as appropriate for students' disciplines. Revision of current or previous course papers according to disciplinary conventions.

## LING 520. Fundamentals of Linguistics

Prerequisite: Upper division standing.
Principles of modern linguistics, with attention to English grammar (syntax, morphology, phonology). Language change, dialects, sociolinguistics, psycholinguistics, language acquisition.

## LING 521. Phonology (3)

Prerequisite: Linguistics 420 or 520 .
Theoretical principles of transformational-generative phonology.
LING 522. Syntax (3)
Prerequisite: Linguistics 420 or 520.
Theoretical principles of transformational-generative syntax.

## LING 523. Morphology (3)

Prerequisite: Linguistics 420 or 520 .
Theoretical principles of words structure, including inflection, derivation, and compounding; organization of the lexicon; structure of inflectional paradigms; morphophonological and morphosyntactic alterations; and computational applications.

## LING 524. American Dialectology (3)

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.

## LING 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.

## LING 530. English Grammar (3)

Prerequisites: 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.

## LING 550. Theory and Practice of English as a Second Language (3)

Prerequisite: Linguistics 420 or 520 .
The nature of language learning; evaluation of techniques and materials for the teaching of English as a second language.

## LING 551. Sociolinguistics (3)

Prerequisite: A course in introductory linguistics.
Investigation of the correlation of social structure and linguistic behavior.

## LING 552. Psycholinguistics (3)

Prerequisite: Linguistics 420 or 520 .
Psychological and mental processes related to comprehension, production, perception, and acquisition of language in adults and children.

## LING 553. Bilingualism (3)

Prerequisite: Linguistics 420 or 520 or Speech, Language, and Hearing Sciences 300.

Bilingual societies; language choice by bilinguals; bilingual language acquisition; effects of bilingualism on language structure and use.

## LING 554. Child Language Acquisition

(3)

Prerequisite: Linguistics 420 or 520.
Theories and research methods in child language acquisition; quantitative and qualitative analyses of data at various levels of grammar (phonology, morphology, lexicon, syntax, and discourse) using language and acquisition corpora.

## LING 555. Practical Issues in Teaching English as a Second Language (3)

Prerequisites: Linguistics 420 or 520; and credit or concurrent registration in Linguistics 550.

Practical approaches to applications of the theory of English as a Second Language (ESL) and methodology for speaking, reading, listening, writing; techniques for facilitating growth of communicative competence.

## LING 556. Computer Assisted Language Learning and Teaching (3)

Prerequisites: Linguistics 420 or 520; and credit or concurrent registration in Linguistics 550.

Theory and practice of computer assisted language learning and language teaching. Hands-on experience with pedagogical aspects of using technology in the language classroom.
LING 570. Mathematical Linguistics (3)
Prerequisites: Two linguistics courses.
Mathematical tools for linguistics: set theory; basic algebraic structures such as groups, lattices, and Boolean algebras; formal language theory; propositional and 1st-order logic. Some emphasis on proofs. Applications to linguistics.

## LING 571. Computational Corpus Linguistics

(3)

## Prerequisites: Two linguistics courses.

Practical introduction to computation with text corpora and introduction to Perl. Tokenizing, part-of-speech tagging, and lemmatizing (stemming) large corpora. Writing of Perl programs required.
LING 581. Computational Linguistics (3)
(Same course as Computer Science 581.)
Prerequisites: Linguistics 570 or Mathematics 245; Linguistics 571 or Computer Science 320.

Basic concepts in computational linguistics including regular expressions, finite-state automata, finite-state transducers, weighted finite-state automata, and n-gram language models. Applications to phonology, orthography, morphology, syntax. Probabilistic models. Statistical techniques for speech recognition.

## LING 582. Computational Syntax and Semantics

Prerequisites: Linguistics 522 and 581.
Review of finite-state and context free languages; unification grammars; problems of meaning and intention in computational systems. Example applications from information retrieval, dialogue, and machine translation systems.

## LING 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 

OFFICE: Student Services 3356
TELEPHONE: 619-594-5306
FAX: 619-594-3272

A Member of the AACSB International-The Association to Advance Collegiate Schools of Business.

## Faculty

Emeritus: Atchison, Belasco, Brady, Butler, Ghorpade, Hampton, Mitton, Pierson, Robbins, Srbich, Wright
Chair: Singh
Professors: De Noble, Hergert, Jung, Marino, Naughton, Shore, Singh
Associate Professors: Chung-Herrera, Dunn, Ehrlich, Rhyne, Ryan, Sundaramurthy
Assistant Professors: Dean, Francis, Randel, Zheng
Lecturer: Glazer

## 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. Minor in management.
Minor in small business management (available at Imperial Valley Campus only).

## 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.

In the College of Business Administration

## Business Honors Program

The Business Honors Program offers excellent upper division business students the opportunity to explore issues in our local, regional, and global business environments focusing on the social and ethical responsibility that business has to the community and society. Honors students will enroll in a one unit business honors seminar each semester. During their enrollment they will participate in activities to promote their academic and personal growth, documenting their work in a written portfolio.

Generally, students should apply to this program at the time of application to upper division business. Applicants must submit an essay with their application. Applicants must have a 3.6 cumulative GPA or good standing in the University Honors Program. Students not meeting these requirements may petition for admission to the program. Successful completion of the Business Honors Program will be recognized at graduation. Contact Dr. Carol Venable, School of Accountancy, for more information about this program.

## Statement on Computers

Before enrolling in upper division courses in the College of Business Administration, students must be competent in the operation of personal computers, including word processing and spreadsheets. Business students are strongly encouraged to have their own computers capable of running word processing, spreadsheet, presentation, e-mail, and Internet applications such as those found in packages sold by major software publishers. Availability of on-campus computing resources can be limited due to increasing demand across the university.

## Retention Policy

The College of Business Administration expects that upper division students will make reasonable academic progress towards the degree. Students earning less than a 2.0 average in their classes for two or more semesters may be removed from the upper division major and required to declare a non-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 AACSB International-The Association to Advance Collegiate Schools of Business accredited program. Exceptions require thorough documentation evidencing the above standards.

## Impacted Program

The management major is impacted. Before enrolling in any upper division courses in business administration, students must advance to an upper division business major and obtain a business major code To be admitted to an upper division business major (accounting, finance, financial services, real estate, information systems, management, or marketing), students must meet the following criteria:
a. Complete with a grade of C or higher: Accountancy 201 and 202; Finance 240; Information and Decision Systems 180 and 290 (290 is not required for the accounting major); Economics 101 and 102; Mathematics 120 (or other approved calculus course); and either Statistics 119 or Economics 201. These courses cannot be taken for credit/no credit ( $\mathrm{Cr} / \mathrm{NC}$ );
b. Complete a minimum of 60 transferable semester units;
c. Have a cumulative GPA of 2.9;

Students who meet all requirements except the GPA may request to be placed on the waiting list. While all spaces are usually filled by eligible students, if there is room in the program after all the fully-qualified students have been accommodated, students will be admitted from the waiting list in GPA order. Contact the Business Advising Center (BA-448), 619-594-5828, for more information.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Management Major

## With the B.S. Degree in Business Administration (Major Code: 05061)

A minor is not required with this major.
Preparation for the Major. Accountancy 201, 202; Finance 240; Information and Decision Systems 180, 290; Economics 101, 102; Economics 201 or Statistics 119; and Mathematics 120 (or other approved calculus course). (27-29 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$; the minimum grade in each class is C. Additional progress requirements must be met before a student is admitted to an upper division major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. Thirty-seven upper division units consisting of Management 350, 352, 356, 401, 451, 454; Business Administration 300; Finance 323; Information and Decision Systems 301, 302; Marketing 370; three units from Business Administration 404; Management 405, 450 or 458 ; and three units selected from any upper division course in Management, Accountancy, Economics, Finance, Information and Decision Systems, Marketing, or Africana Studies 445, 452; American Indian Studies 320; Anthropology 350, 444; Chicana and Chicano Studies 320; Communication 371; Geography 353; Natural Science 333; Philosophy 329, 333; Political Science 346; Psychology 319, 340; Social Work 350; Sociology 355, 401, 410, 531, 532; Women's Studies 320, 385. A "C" (2.0) average is required in the courses stipulated here for the major.

A minimum of 60 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration, economics, and statistics.

## 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 in residence at San Diego State University. Students with a major in the College of Business Administration, Hospitality and Tourism Management, or in International Business may not complete a minor in the College of Business Administration.

Students must officially declare the minor before taking any upper division business courses. Students must meet the prerequisites for the minor in effect at the time that they declare the minor. The current prerequisites for admission to the management minor include completion of the following courses with a grade of C or better: Economics 101, 102, and a three unit course in statistics (Statistics 119 is recommended); completion of the General Education requirements in Communication and Critical Thinking; completion of an additional nine units in the department of the student's major, including at least six units of upper division courses. Students must also meet the GPA requirement in effect at the time that they declare the minor. Contact the Business Advising Center (BA-448) for admissions criteria and procedures.

## Small Business Management Minor <br> (Imperial Valley Campus Only)

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, 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 in residence at San Diego State University.

## Project AMIGOS Dual Degree

Project AMIGOS (American Management Initiative for Global Operating Skills) is a transnational dual degree program between San Diego State University (SDSU) and Instituto Tecnologico y de Estudios Superiores de Monterrey (ITESM). Students may enter the program at either of the two schools and must spend a minimum of one-and-onehalf years of study each in the United States and in Mexico.

Participants in Project AMIGOS are enrolled in the management major in the College of Business Administration at San Diego State University.

In addition to completing 49 units of General Education requirements at San Diego State University, students in AMIGOS must complete 97 units in management courses.

Approximately a quarter of all of these requirements are completed in Spanish while attending school in Mexico. Successful participants earn both the Bachelor of Science degree in business administration from San Diego State University and the Licenciatura en Administracion de Empresas from ITESM.

For more information about this program, contact Teresa Donahue at 619-594-3902.

## Courses (MGT)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSE

## MGT 202. Business Professions (1) Cr/NC I, II

Students explore career options, analyze and evaluate career decisions through self assessment and career research. Computer programs and resources in Career Services library used to identify potential career.

## UPPER DIVISION COURSES (Intended for Undergraduates)

MGT 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.

MGT 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.

## MGT 356. Social and Ethical Issues in Business (3) I, II

Prerequisite: Business Administration 300.
Corporate social responsibility, stakeholder theory, morality of capitalism, and corporate governance. Ethical theory and its application to ongoing issues and current events within the business context.

## MGT 357. Multinational Business and Comparative Management (3) <br> Prerequisite: Management 350.

Context of international business, environment, institutions, and business practices. Cultural awareness, sensitivity, interpersonal, and leadership skills needed in an international context.

## MGT 401. Business Internship (3) Cr/NC I, II

Prerequisites: Management 350 and consent of faculty adviser.
Internship with business firms, nonprofit organizations, or government agencies. Work done under joint supervision of intern organization and course instructor.

## MGT 405. International Business Strategy and Integration (3) I, II

Prerequisites: Management 350, Business Administration 300, 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.

## MGT 450. Venture Management (3) I, II

Prerequisites: Management 350, Business Administration 300, 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.
MGT 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.

## MGT 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.

## MGT 458. Management Decision Games (1-3) II

Prerequisites: Consent of instructor. Management 350, Business Administration 300, 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.

## MGT 496. Selected Topics in Management (1-4)

Prerequisite: Consent of department chair.
Selected areas of concern in management; see Class Schedule for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

## MGT 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.
MGT 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)
MGT 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

## A Member of the AACSB International-The Association to Advance Collegiate Schools of Business.

## Faculty

Emeritus: Akers, Apple, Barber, Darley, Haas, Hale, Lindgren, McFall, Sciglimpaglia, Settle, Vanier, Wotruba

## Chair: Belch

Professors: Belch, Kartalija, Krentler, Saghafi, Stampfl, Tyagi
Associate Professors: Baker, Russell
Assistant Professors: Aistrich, Appleton-Knapp, Honea
Lecturers: Brooks, Olson

## 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.
Minor in marketing.

## 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 operations in large department stores, serve as sales representatives for manufacturers and wholesalers, and sell a variety of services and equipment;
- 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.

OFFICE: Student Services 3356 TELEPHONE: 619-594-5317

FAX: 619-594-3272

Students who choose the specialization in Integrated Marketing Communications prepare for careers as:

- Advertising and promotion specialists, such as copywriters, who 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, who supervise the promotional activities of retailers, wholesalers, or manufacturers;
- Account executives, who 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, who coordinate the purchasing of space in newspapers and magazines and arrange for commercials on radio and television;
- Production managers, who supervise the work of copywriters, artists, and other members of an advertising team.


## Business Honors Program

The Business Honors Program offers excellent upper division business students the opportunity to explore issues in our local, regional, and global business environments focusing on the social and ethical responsibility that business has to the community and society. Honors students will enroll in a one unit business honors seminar each semester. During their enrollment they will participate in activities to promote their academic and personal growth, documenting their work in a written portfolio.

Generally, students should apply to this program at the time of application to upper division business. Applicants must submit an essay with their application. Applicants must have a 3.6 cumulative GPA or good standing in the University Honors Program. Students not meeting these requirements may petition for admission to the program. Successful completion of the Business Honors Program will be recognized at graduation. Contact Dr. Carol Venable, School of Accountancy, for more information about this program.

## Statement on Computers

Before enrolling in upper division courses in the College of Business Administration, students must be competent in the operation of personal computers, including word processing and spreadsheets. Business students are strongly encouraged to have their own computers capable of running word processing, spreadsheet, presentation, e-mail, and Internet applications such as those found in packages sold by major software publishers. Availability of on-campus computing resources can be limited due to increasing demand across the university.

## Retention Policy

The College of Business Administration expects that upper division students will make reasonable academic progress towards the degree. Students earning less than a 2.0 average in their classes for two or more semesters may be removed from the upper division major and required to declare a non-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 AACSB International-The Association to Advance Collegiate Schools of Business accredited program. Exceptions require thorough documentation evidencing the above standards.

## Impacted Programs

The majors in the Department of Marketing are impacted. Before enrolling in any upper division courses in business administration, students must advance to an upper division business major and obtain a business major code. To be admitted to an upper division business major (accounting, finance, financial services, real estate, information systems, management, or marketing), students must meet the following criteria:
a. Complete with a grade of C or higher: Accountancy 201 and 202; Finance 240; Information and Decision Systems 180 and 290 (290 is not required for the accounting major); Economics 101 and 102; Mathematics 120 (or other approved calculus course); and either Statistics 119 or Economics 201. These courses cannot be taken for credit/no credit ( $\mathrm{Cr} / \mathrm{NC}$ );
b. Complete a minimum of 60 transferable semester units;
c. Have a cumulative GPA of 2.9;

Students who meet all requirements except the GPA may request to be placed on the waiting list. While all spaces are usually filled by eligible students, if there is room in the program after all the fully-qualified students have been accommodated, students will be admitted from the waiting list in GPA order. Contact the Business Advising Center (BA-448), 619-594-5828, for more information.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Marketing Major

## With the B.S. Degree in Business Administration (Major Code: 05091)

A minor is not required with this major.
Preparation for the Major. Accountancy 201, 202; Economics 101, 102; Finance 240; Information and Decision Systems 180, 290; Mathematics 120 (or other approved calculus course); and Economics 201 or Statistics 119. (27-29 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$; the minimum grade in each class is C. Additional progress requirements must be met before a student is admitted to an upper division major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(W)$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. Students may elect to major in general marketing or to complete the marketing major with a specialization in integrated marketing communications.

## General Marketing

Forty-seven upper division units consisting of Marketing 370, 371, 470, 479; Business Administration 300; Finance 323; Information and Decision Systems 301, 302; Management 350; Business Administration 404 or Management 405; 16 units selected from Marketing 372, $373,376,377,472,473,474,475,476$. A "C" (2.0) average is required in the courses stipulated here for the major. A minimum of 60 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration, economics, and statistics.

## Specialization in Integrated Marketing Communications

Forty-seven to 48 upper division units consisting of Marketing 370, 371, 373, 470, 472; Business Administration 300; Finance 323; Information and Decision Systems 301, 302; Management 350; Business Administration 404 or Management 405; 12-13 units selected from Communication 440, 460, 480, 560*, 565*^; Marketing 476. A "C" (2.0) average is required in the courses stipulated here for the major. A minimum of 60 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration, economics, and statistics. This specialization meets this requirement.

[^28]
## Marketing Minor

The minor in marketing consists of a minimum of 20 units, of which 12 units must be in upper division courses, to include Marketing 370; Accountancy 201; Economics 102; and 11 to 12 units selected from Information and Decision Systems 301, Marketing 371, 372, 373, 376, $377,470,472,473,474,476$.

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 in residence at San Diego State University. Students with a major in the College of Business Administration, Hospitality and Tourism Management, or International Business may not complete a minor in the College of Business Administration.

Students must officially declare the minor before taking any upper division business courses. Students must meet the prerequisites for the minor in effect at the time that they declare the minor. The current prerequisites for admission to the marketing minor include completion of the following courses with a grade of C or better: Economics 101, 102, and a three unit course in statistics (Statistics 119 is recommended); completion of the General Education requirements in Communication and Critical Thinking; completion of an additional nine units in the department of the student's major, including at least six units of upper division courses. Students must also meet the GPA requirement in effect at the time that they declare the minor. Contact the Business Advising Center (BA-448) for admissions criteria and procedures.

## Courses (мктG)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

## MKTG 370. Marketing (3) I, II, S

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.

## MKTG 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.

## MKTG 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

MKTG 373. Integrated Marketing Communications (4) I, II
Prerequisite: Marketing 370 with a minimum grade of $C$ (2.0). Proof of completion of prerequisite required: Copy of transcript.

Communication and promotion theory; emphasis on integration of various marketing communications tools including advertising, personal selling, media strategy and tactics, public relations, and publicity strategy, methods, measurement, and ethics.

## MKTG 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.

## MKTG 377. Selling Strategy and Practices (4)

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.

## MKTG 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

Methods of information generation and interpretation for marketing decisions; research design, data sources and collection, analysis and reporting techniques. Use of SPSS computer programs for analysis of marketing research survey and experimental data.

## MKTG 472. Advanced Integrated Marketing

Communications (4) I, II
Prerequisites: Marketing 373 with minimum grade of C ; Marketing 371 and 470 with minimum grade of $C$ or an average of 2.0 in both courses. Proof of completion of prerequisites required: Copy of transcript.

Management of marketing communications function with emphasis on integration and coordination of all activities. Planning, implementation, and coordination of marketing communications activities. Development, implementation, and program evaluation of an integrated marketing communications project.

MKTG 473. Sales Management (4)
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.

## MKTG 474. Business Marketing (4)

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.

## MKTG 475. Global Marketing Applications (4)

Prerequisite: Marketing 376 with a minimum grade of $C$ (2.0)
Applying global marketing concepts to conduct detailed market analysis through collecting demographic, cultural, political, legal, economic, financial data; developing international marketing plan focused on one world region for company with international entry, global marketing strategy issues. Region of focus varies.

MKTG 476. Marketing, Computers, and the Internet (4) I, II
Prerequisite: Marketing 370 with a minimum grade of $C$ (2.0) Proof of completion of prerequisite required: Copy of transcript.

Applications of personal computers, information technology, and Internet in business and marketing. Topics include use of computerized reference sources, the world wide web, webpage design, marketing and business on the Internet, desktop publishing and computer databases.

MKTG 479. Strategic Marketing Management (4) I, II, S
Prerequisites: Marketing 371 and 470 with a minimum grade of $C$ (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.

## MKTG 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.
MKTG 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.

MKTG 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 

## OFFICE: Geology/Mathematics/Computer Science 413 TELEPHONE: 619-594-6191

## Faculty

Emeritus: Branstetter, Branca, Bray, Carlson, Deaton, Eisemann, Elwin, Fountain, Garrison, Hager, Harvey, Hintzman, Ho, Holmes, Lutz, Marcus, Marosz, McLeod, Nower, Pierce, Riggs, Ross, Saltz, Short, Smith, Sowder, J., Sowder, L., Springer, Thompson, Van de Wetering, Villone, Whitman
Chair: Lesley
Professors: Castillo, Dunster, Geveci, Grone, Hui, Lesley, Mahaffy, Nemirovsky, Salamon
Associate Professors: Bowers, Kirschvink, Lobato, Palacios, Rasmussen
Assistant Professors: Blomgren, Carretero, Interlando, Nickerson, O'Sullivan, Smarandache
Lecturers: Brock, Cavanaugh, Rotar

## Offered by the Department of Mathematics and Statistics

Master of Arts degree in mathematics.
Master of Science degree in applied mathematics.
Concentration in dynamical systems.
Concentration in mathematical theory of communication systems.
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 computational science.
Emphasis in mathematical finance.
Emphasis in science.
Teaching major in mathematics for the single subject teaching credential.
Minor in mathematics.
Certificate in communications systems (refer to the Graduate Bulletin). Certificate in mathematics specialist (refer to the Graduate Bulletin).
Certificate in single subject mathematics.

## The Majors

Mathematics is the language and instrument for the sciences and technology. It is concerned with a wide range of diverse problems from developing techniques to model real world applications and designing efficient methods for calculating their solutions, to creating new branches of mathematics and theories for as yet unsolved problems. Some students find mathematics stimulating because of its many and varied applications, while others are fascinated and attracted to it for the beauty of its intrinsic order, structure, and form.

Because of its broad scope, degrees in mathematics can prepare students for many different careers and the Department of Mathematics and Statistics offers a variety of such degrees and emphases to provide students with several blends and specialties according to their interests and goals.

Graduates with a mathematics major have many options for either careers in applications, for further study in graduate school, or for teaching. Mathematics majors are important because their training involves quantitative abilities and critical reasoning that many potential employers can utilize. With a minor in an area of applications, graduates are suited for further graduate study in many areas that heavily depend upon mathematical methods and techniques. Graduates with an interest in the more theoretical aspects of mathematics are sought

In the College of Sciences

after in many diverse graduate programs from applied and pure mathematics to computer and computational sciences and statistics. Careers in teaching include positions in secondary schools, for which a teaching credential is additionally required, teaching in two year colleges, for which a master's degree is required, and teaching at the university level, which requires a doctorate degree and involves research and creation of new mathematics.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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, 151, 241, 245, 252, 254, Computer Science 107. (22 units)

Recommended: Physics 195, 195L, 196, 196L, 197, 197L.
Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(W)$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

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 selected from: Mathematics 521A-521B; Mathematics 337 and 531; 337 and 537; 337 and 538; 534A-534B; 541 and 542; 541 and 543; Statistics 550 and 570; Statistics 551A and 551B; and nine units of electives.

Master Plan. A master plan of the courses taken to fulfill the major must be approved by the adviser and filed with the Office of Advising and Evaluations

## 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."

There are four emphases offered in this major: Applied Mathematics, Computational Science, Mathematical Finance, and Science.

## Emphasis in Applied Mathematics

This emphasis is designed to train the student in those areas of mathematics which may be applied to formulate and solve problems in other disciplines. The program is designed to qualify the student for employment as an applied mathematician, but the graduate would also be well prepared for graduate study in pure or applied mathematics.

Preparation for the Major. Mathematics 150, 151, 241, 245, 252, 254, Computer Science 107, Statistics 250. (25 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements

Major. A minimum of 36 upper division units to include Mathematics $337,521 \mathrm{~A}, 524,532,534 \mathrm{~A}, 534 \mathrm{~B}, 541$; Statistics 350A or 551A; and 12 units of electives in computer science, mathematics, or statistics (approved by the Applied Mathematics adviser) excluding Mathematics $302,303,312,313,342 \mathrm{~A}, 342 \mathrm{~B}, 414,509$, and Statistics 357.

Master Plan. A master plan of the courses taken to fulfill the major must be approved by the adviser and filed with the Office of Advising and Evaluations.

Auxiliary Area. A minimum of 12 units (lower or upper division) 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 Economics 101, 102, 320, 321. 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 Computational Science

Preparation for the Major. Mathematics 150, 151, 241, 245, 252, 254, Computer Science 107, 108, 205, Statistics 250. (31 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Mathematics $336,337,521 \mathrm{~A}, 524,534 \mathrm{~A}$; at least nine units from Mathematics 525 , $532,537,541$ or $544,542,543$, Computer Science 558, 575; three units of Mathematics 499 (Senior Project); and nine units of electives from computer science, mathematics, or statistics (approved by the Applied Mathematics adviser) excluding Mathematics 302, 303, 312, 313, 342A, 342B, 414, 509, and Statistics 357.

Master Plan. A master plan of the courses taken to fulfill the major must be approved by the adviser and filed with the Office of Advising and Evaluations.

## Emphasis in Mathematical Finance

This emphasis is designed to train students for work in the field of financial mathematics, focusing on derivative instruments and risk management. The graduate would also be highly qualified for graduate study.

Preparation for the Major. Mathematics 150,151, 241, 245, 252, 254, Computer Science 107, Statistics 119 or 250, Accountancy 201, Economics 101, 102. (34 units) The student must complete these courses before being allowed to register for the upper division finance courses.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 39 upper division units to include Mathematics 337, 524, 531, 544, 562, 580, 581, Statistics 550 or 551A, Statistics 551 B or 570 or 575, Finance 323, 326 or Economics 490, Finance 327, 329 or 421.

Master Plan. A master plan of the courses taken to fulfill the major must be approved by the adviser and filed with the Office of Advising and Evaluations.

## Emphasis in Science

This purpose of this emphasis 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 will provide a good background for employment or graduate work in applied mathematics or in that science.

Preparation for the Major. Mathematics 150,151, 241, 245, 252, 254, Computer Science 107, Statistics 250. (25 units) Some lower division courses will probably be prerequisite to science courses applied to the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Mathematics $337,524,534 \mathrm{~A}, 534 \mathrm{~B}$; at least six units selected from Mathematics 521 A, $525,531,532,537$; 12 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 computer science, mathematics, or statistics excluding Mathematics 302, 303, 312, 313, 342A, 342B, 414, 509, and Statistics 357.

Master Plan. A master plan of the courses taken to fulfill the major must be approved by the adviser and filed with the Office of Advising and Evaluations.

## Mathematics Major

## In preparation 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 preparing to be high school teachers as an undergraduate major for the B.A. degree in liberal arts and sciences.

Preparation for the Major. Mathematics 150, 151, 241, 245, 252, 254, Statistics 250. (22 units)

Recommended: Computer Science 107, Physics 195, 195L, 196, 196L, 197, 197L.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language as part of the preparation for the major. Refer to the section of the catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 24 upper division units in mathematics to include Mathematics 302, 303, 414, 521A, 534A, Statistics 550; an upper division course in geometry; and three units of electives in mathematics approved by the credential adviser.

Master Plan. A master plan of the courses taken to fulfill the major must be approved by the adviser and filed with the Office of Advising and Evaluations.

## 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 in residence at San Diego State University.

## Single Subject Mathematics Certificate

The purpose of the Single Subject Mathematics Certificate program is to provide individuals appropriate mathematics coursework to establish their subject matter competency in accordance with California State requirements for high school mathematics teachers. 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 Mathematics and Statistics.

The program consists of 46 units to include Mathematics 150, 151; and $241,245,252,254,302,303,414,510$ (or 511 or 512 ), 521A, 534A, Statistics 250,550, and three units of upper division 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 118, 120, 121, 141, 150, 210, 211, 312, Statistics 119, 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) STATISTICS (See this section of catalog under Statistics)

## Courses (MATH)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

NOTE: Proof of completion of Entry-Level Mathematics requirement required for Mathematics 118, 120, 121, 122, 141, 150, 210, 211: Copy of ELM score or verification of exemption.

## MATH 118. Topics in Mathematics (3) [GE] I, II

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.

Topics selected from algebra, analysis, geometry, logic, probability, or statistics, designed to give student insight into structure of mathematical theories and their applications.

MATH 120. Calculus for Business Analysis (3) [GE] I, II, S
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA.

Matrix algebra. Calculus including differentiation and integration. Graphing and optimization. Exponential and logarithmic functions. Multivariable calculus.

MATH 121. Calculus for the Life Sciences I (3) [GE] I, II
Two lectures and two hours of activity.
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA.

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.
MATH 122. Calculus for the Life Sciences II (3) [GE] I, II
Two lectures and two hours of activity.
Prerequisites: Satisfaction of the Entry-Level Mathematics requirement; qualification on the Mathematics Departmental Placement Examination, Part IA; and Mathematics 121.

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.

## MATH 141. Precalculus (3) [GE] I, II

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA.

Real numbers, inequalities; polynomials; rational, trigonometric, exponential and logarithmic functions; conic sections. Not open to students with credit in Mathematics 150.

## MATH 150. Calculus I (4) [GE] I, II, S

Prerequisites: Knowledge of algebra, geometry, and trigonometry as demonstrated by either (1) satisfactory completion of Mathematics 141 with a grade of $C$ (2.0) or above; or (2) satisfaction of the EntryLevel Mathematics requirement and qualification on the Mathematics Departmental Precalculus Proficiency Examination. Proof of completion of prerequisites required.

Algebraic and transcendental functions. Continuity and limits. The derivative and its applications. The integral and the fundamental theorem of calculus.

MATH 151. Calculus II (4) [GE] I, II, S
Prerequisite: Mathematics 150 with minimum grade of C. Proof of completion of prerequisite required.

Techniques and applications of integration. Improper integrals. Differential equations. Infinite series. Conic sections. Curves in parametric form, polar coordinates.

## MATH 210. Number Systems in Elementary Mathematics (3) [GE] I, II

This course or its equivalent is required for students working toward a multiple subject credential in elementary education.

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.

Number sense, operation concepts, estimation, mental arithmetic, algorithms, problem solving, whole, rational, real numbers, ratio, and number theory.

## MATH 211. Geometry in Elementary Mathematics (3) [GE] I, II

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and Mathematics 210.

Two and three dimensional shapes and interrelationships, congruence, similarity and proportional reasoning, measurement of length, angle size, area, volume, metric system, and problem solving.

## MATH 215. Mathematics Placement Examination: Part LS Review (1) ( $\mathrm{Cr} / \mathrm{NC}$ )

Prerequisite: Score of 12 or lower on either section of Mathematics Placement Examination: Part LS.

Required review for students who have failed Mathematics Placement Examination: Part LS. Basic numbers (quantities, number systems, basic computations with integers and fractions), measurement and geometry (two- and three-dimensional objects, measurements, and measure systems).

MATH 241. Mathematics Software Workshop (1)
(Selected sections offered as distance education.)
Prerequisite: Mathematics 151.
Introduction to mathematical software environment such as MATLAB, MAPLE, MATHEMATICA or the Geometers Sketchpad. May be repeated for credit with different software. See Class Schedule for specific content. Maximum credit two units.

## MATH 245. Discrete Mathematics (3) [GE] I, II, S

Prerequisite: Mathematics 121 or 150.
Logic, methods of proof, set theory, number theory, equivalence and order relations, counting (combinations and permutations), solving recurrence relations.

## MATH 252. Calculus III (4) [GE] I, II, S

Prerequisite: Mathematics 151 with minimum grade of C .
Functions of several variables. Vectors. Partial derivatives and multiple integrals. Line integrals and Green's Theorem.
MATH 254. Introduction to Linear Algebra (3) [GE] I, II, S
Prerequisite: Mathematics 151.
Matrix algebra, Gaussian elimination, determinants, vector spaces, linear transformations, orthogonality, eigenvalues, and eigenvectors.

## MATH 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.
MATH 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.

## MATH 302. Transition to Higher Mathematics (3) I, II

Prerequisite: Mathematics 150
Selected topics in mathematics to emphasize proof writing and problem solving. Intended for those planning to teach secondary school mathematics.

## MATH 303. History of Mathematics (3) [GE] I, II

Prerequisites: Mathematics 141 or students using course to satisfy General Education must complete the General Education requirement in Foundations IIA., Natural Sciences and Quantitative Reasoning.

Major currents in the development of mathematics from ancient Egypt and Babylon to late nineteenth century Europe.

MATH 311. Statistics and Probability in Elementary Mathematics (2)
Prerequisites: Mathematics 211 and satisfactory performance on Mathematics Departmental Placement Examination, Part LS.

Topics from statistics and probability. Enrollment limited to liberal studies majors. Not open to students with credit in Mathematics 312.

## MATH 312. Topics from Elementary Mathematics I (3) I, II

Prerequisites: Mathematics 211 and satisfactory performance on Mathematics Departmental Placement Examination, Part LS.

Topics from statistics and probability. Enrollment limited to future teachers in grades K-8. Not open to students with credit in Mathematics 311.

## MATH 313. Selected Topics in Elementary Mathematics (3) I, II

 Prerequisite: Mathematics 311 or 312.Capstone course for prospective K-8 teachers. Advanced topics in mathematics selected from algebra, number systems, transformation geometry, and problem solving. Enrollment limited to future teachers in grades K-8.

## MATH 315. Special Topics in Algebra, Geometry, and Problem

 Solving (2)Prerequisites: Mathematics 210, 211, 311.
Capstone course for prospective elementary teachers to include algebra (describing change), geometry (rigid motions), and non-routine problem solving.

## MATH 336. Introduction to Mathematical Modeling (3) II

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.

## MATH 337. Elementary Differential Equations (3) I, II

Prerequisite: Mathematics 254 or 342A.
Integration of first-order differential equations, initial and boundary value problems for second-order equations, series solutions and transform methods, regular singularities.

## MATH 342A. Methods of Applied Mathematics I

(3) I

Prerequisite: Mathematics 252.
Vector analysis, divergence and Stokes' theorem and related integral theorems. Matrix analysis, eigenvalues and eigenvectors, diagonalization. Introduction to ordinary differential equations. Computer software packages for matrix applications, solving, and graphing differential equations. Not open to students with credit in Physics 340A.
MATH 342B. Methods of Applied Mathematics II (3) II
Prerequisite: Mathematics 342A with minimum grade of C.
Second order ordinary differential equations, power series methods, Bessel functions, Legendre polynomials. Linear partial differential equations, separation of variables, Fourier series, Sturm-Liouville theory, orthogonal expansions, Fourier Transforms. Use of computer software packages for symbolic algebra and solution of differential equations. Not open to students with credit in Physics 340B.

## MATH 413. Mathematics for the Middle Grades (3)

Prerequisites: Senior standing and Mathematics 312.
Teacher-level look at mathematics taught in middle grades, to include proportional reasoning, rational and real numbers, probability, and algebra. Intended for those planning to teach mathematics in middle grades; cannot be used as part of major or minor in mathematical sciences with exception of major for single subject teaching credential. Students in the SSTC major must receive instructor permission.

## MATH 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.

## MATH 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.

## MATH 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) <br> NOTE: Proof of completion of prerequisites required for all upper division courses: Copy of transcript. 

MATH 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.

## MATH 510. Introduction to the Foundations of Geometry <br> (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.

## MATH 511. Projective Geometry (3)

Prerequisite: Mathematics 254.
Geometry emphasizing relationships between points, lines, and conics. Euclidean geometry and some non-Euclidean geometries as special cases of projective geometry.

## MATH 512. Non-Euclidean Geometry

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 nonEuclidean geometry.

## MATH 521A. Abstract Algebra (3) I, II

Prerequisites: Mathematics 245 and 254.
Abstract algebra, including elementary number theory, groups, and rings.

## MATH 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.

## MATH 522. Number Theory (3) I

Prerequisites: Mathematics 245 and 252.
Theory of numbers to include congruences, Diophantine equations, and a study of prime numbers; cryptography.

## MATH 523. Mathematical Logic (3) <br> Prerequisite: Mathematics 245. <br> 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.

## MATH 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.

## MATH 525. Algebraic Coding Theory (3) I

Prerequisite: Mathematics 254.
Linear codes, perfect and related codes, cyclic linear codes, BCH codes, burst error-correcting codes.

## MATH 528. Information Theory and Data Compression <br> (3)

Prerequisites: Mathematics 245 and 254.
Fundamental of discrete probability and information theory: joint and conditional distributions, Bayes' theorem, entropy, channel capacity. Noiseless coding theorem and data compression algorithms: Huffman codes, arithmetic coding, Ziv-Lempel codes. Information theory in error correction coding and cryptography.

## MATH 531. Partial Differential Equations (3) II

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.

## MATH 532. Functions of a Complex Variable <br> (3) I

Prerequisite: Mathematics 252.
Analytic functions, Cauchy-Riemann equations, theorem of Cauchy, Laurent series, calculus of residues, and applications.

## MATH 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.

## MATH 534A. Advanced Calculus I (3) I, II, S

Prerequisites: Mathematics 245 and 254; or 342A.
Completeness of the real numbers and its consequences, sequences of real numbers, continuity, differentiability and integrability of functions of one real variable.

## MATH 534B. Advanced Calculus II (3) II

Prerequisite: Mathematics 534A.
Series and sequences of functions and their applications, functions of several variables and their continuity, differentiability and integrability properties.

## MATH 537. Ordinary Differential Equations (3)

Prerequisite: Mathematics 337.
Theory of ordinary differential equations: existence and uniqueness, dependence on initial conditions and parameters, linear systems, stability and asymptotic behavior, plane autonomous systems, series solutions at regular singular points.

## MATH 538. Discrete Dynamical Systems and Chaos (3) II

Prerequisite: Mathematics 337.
One- and two-dimensional iterated maps, equilibria and their stability, sensitive dependence on initial conditions, Lyapunov exponents, horseshoe maps, period doubling, chaotic attractors, Poincare maps, Lorenz systems, chaos in differential equations, stable manifolds and crises. Applications in biology, chemistry, physics, engineering, and other sciences. Bifurcation theory.
MATH 541. Introduction to Numerical Analysis and Computing (3) I, II, S
Prerequisites: Mathematics 254 or 342A; and Computer Science 106 or 107 or 205.

Solution of equations of one variable, direct methods in numerical linear algebra, least squares approximation, interpolation and uniform approximation, quadrature.

## MATH 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.
MATH 543. Numerical Matrix Analysis (3)
Prerequisite: Mathematics 541.
Gaussian elimination, LU factorizations and pivoting strategies. Direct and iterative methods for linear systems. Iterative methods for diagonalization and eigensystem computation. Tridiagonal, Hessenberg, and Householder matrices. The QR algorithm.

## MATH 544. Computational Finance (3)

Prerequisite: Statistics 550 or 551A.
Risk evaluation. Numerical procedures for evaluating financial derivatives. Monte Carlo simulation techniques.

## MATH 561. Applied Graph Theory (3) I

Prerequisite: Mathematics 245 or 254.
Undirected and directed graphs, trees, Hamiltonian circuits, classical problems of graph theory including applications to linear systems.

## MATH 562. Mathematical Methods of Operations Research (3) II

Prerequisites: Mathematics 252 and 254.
Theory and applications concerned with optimization of linear and non-linear functions of several variables subject to constraints, including simplex algorithms, duality, applications to game theory, and descent algorithms.
MATH 579. Combinatorics (3) II
Prerequisite: Mathematics 245.
Permutations, combinations, generating functions, recurrence relations, inclusion-exclusion counting. Polya's theory of counting, other topics and applications.

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MATH 580. Risk Management: Stocks and Derivative
    Securities (3)
    Prerequisite: Statistics 550 or 551A.
    Theory of derivative securities with focus on evolution of stock
prices and pricing of options.
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## MATH 581. Risk Management: Portfolio Selection and Other Features of Finance Markets (3)

Prerequisite: Statistics 550 or 551A.
Derivatives and term structures, method of principal components, theory of portfolio optimization, some numerical methods.

MATH 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.

## Mathematics Education

## Course (MTHED)

## LOWER DIVISION COURSE (Intended for Undergraduates)

NOTE: Proof of completion of Entry-Level Mathematics requirement required for Mathematics 118, 120, 121, 122, 141, 150, 210, 211: Copy of ELM score or verification of exemption.

## MTHED 212. Children's Mathematical Thinking (1-1.5)

Prerequisite: Credit or concurrent registration in Mathematics 210.
Children's mathematical thinking and in-depth analyses of children's understanding of operations (addition, subtraction, multiplication, and division) and place value. Students will observe individual children solving mathematics problems. Real, compact disc, and/or web-based experience included.

## Mathematics Specialist Certificate Program

The Mathematics Specialist Certificate Program for Grades 4-6 is open only to credentialed teachers. The certificate program is described in the Graduate Bulletin in the Mathematics and Science Education section. Undergraduate mathematics courses for the certificate program are listed below.

## Courses (МАТН)

MATH 281A-281B. Integrated Mathematics (2-2)
One lecture and two hours of activity.
Prerequisites: Mathematics 281A is prerequisite to 281B. Teaching credential and consent of instructor.

Number systems, geometry, and measurement, selected and sequenced as appropriate for practicing elementary teachers' needs.

## MATH 381. Foundations of Quantitative Reasoning (1)

Prerequisites: Teaching credential and consent of instructor.
Reasoning about quantities and their measurement and relationships among these quantities, including representations of these relationships. Understand situations that call for additive or multiplicative reasoning; important role of these ideas in development of quantitative reasoning skills in primary grades.
MATH 382. Foundations of Algebraic Thinking (1)
Prerequisites: Teaching credential and consent of instructor.
Topics such as pattern searching, equivalence, making and justifying conjectures to prepare primary grade teachers to teach California required K - 12 algebraic reasoning strand.

MATH 383. Quantitative Reasoning (1)
One-half lecture and one hour of activity.
Prerequisites: Teaching credential and consent of instructor.
Reasoning about objects and their measurements and the relationships among these quantities. Understand situations that call for additive or multiplicative reasoning; the important role of proportional reasoning in many middle grades topics.

## MATH 384. Fostering Algebraic Thinking

One-half lecture and one hour of activity.
Prerequisites: Teaching credential and consent of instructor.
Topics (e.g. pattern searching, generalizing, graphing) that can prepare elementary and middle school students for algebra.

## MATH 385. Representing and Interpreting Data (1)

One-half lecture and one hour of activity.
Prerequisites: Teaching credential and consent of instructor.
Gathering, representing, and interpreting data sets.
MATH 386. Measuring Uncertainty (1)
One-half lecture and one hour of activity.
Prerequisites: Teaching credential and consent of instructor.
Prepare teachers to teach probability topics in grades 4-8 textbooks, simulating probabilistic situations, theoretical probabilities, expected values.

## MATH 487. Algebra in the Middle Grades

(3)

One lecture and four hours of activity.
Prerequisites: Teaching credential and consent of instructor.
Algebra as a powerful tool for analyzing, describing, and symbolizing physical relationships. Role of functions in algebra and in other areas of mathematics.

## MATH 488. Geometry in the Middle Grades (3)

One lecture and four hours of activity.
Prerequisites: Mathematics 211, 281A-281B, teaching credential, and consent of instructor.

Geometry as a powerful tool for analyzing, describing, and symbolizing physical and abstract relationships. Properties and relationships of two and three dimensional figures. Role of measurement in geometry and in other areas of mathematics.

GRADUATE COURSES
Refer to the Graduate Bulletin.

# Mechanical Engineering 

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The undergraduate program in Mechanical Engineering is accredited by the American Board for Engineering and Technology.

## Faculty

Emeritus: Bauer, Bedore, Bilterman, Craig, Hoyt, Hussain, Lybarger,
Mansfield, Morgan, Murphy, Ohnysty, Rao
Chair: May-Newman
Professors: Bhattacharjee, Kline, Olevsky
Associate Professors: Burns, Impelluso, May-Newman, Moon, Morsi
Assistant Professors: Beyene, Kassegne, Lambert
Adjunct: German

## Offered by the Department

Doctor of Philosophy degree in engineering sciences/applied mechanics.
Master of Engineering in manufacturing and design.
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 American Board for Engineering and Technology, 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. No more than twelve units may be used for General Education credit from any one department or academic unit. No more than 7 units from one department can be used in Sections II and IV combined (Foundations and Explorations), nor more than 10 units from one department in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).
I. Communication and Critical Thinking: 9 units

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

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)
II. Foundations: 29 units
A. Natural Sciences and Quantitative Reasoning (17 units):
4. Physical Sciences (10 units)

Engineering students will take Chemistry 202 which includes a laboratory (4 units).
Physics 195 (3 units)
Physics 196 (3 units)
2. Life Sciences (3 units)
3. Laboratory (satisfied under A.1. above)
4. Mathematics/Quantitative Reasoning

Engineering students will take Mathematics 150, 4 units applicable to General Education. You may not use Credit/ No Credit grades.
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: Courses in this area must not be taken sooner than the semester in which you achieve upper division standing (60 units passed). Upper division courses in the major department may not be used to satisfy General Education. Total: 9 units; must include one course of cultural diversity.
A. Upper division Humanities (3 units)

Three units must be taken from the same department as one of the Humanities courses selected in Foundations.
B. Upper division Humanities (3 units from a department not selected in A above.)
C. Upper division Social and Behavioral Sciences (3 units)

## The Major

Mechanical engineers invent solutions to problems involving a broad spectrum of thermal/mechanical/electromechanical devices. They create novel devices for solving problems in innovative 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 lifesaving 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.

Mechanical engineers are designers, and the program is dedicated to teaching engineering through the process of design. Design methodology and design projects are integrated throughout the curriculum, culminating in a capstone, design experience in the senior year where students are members of a design team.

The future depends on solving the worldwide problems of energy shortages, environmental pollution, world health, and inadequate food production. Mechanical engineers are actively involved in finding solutions for these problems.

The following is a recommended sequence of courses for the major in mechanical engineering. See General Education in this section for specific GE requirements.

## MECHANICAL ENGINEERING MAJOR

## FRESHMAN YEAR *

| Fall Semester | Units | Spring Semester | Units |
| :---: | :---: | :---: | :---: |
| GE Composition. | 3 | GE Intermediate Composition/ |  |
| GE Math / Mathematics 150, Calculus I ........ | 4 | Prerequisite for M E 330 ... | 3 |
| GE Social Science.................................... | 3 | GE Oral Communication...... | 3 |
| M E 101, Solid Modeling I ......................... | 2 | GE Humanities. | 3 |
| Chemistry 202, Gen. Chem. for Engrs. ......... | 4 | M E 102, Solid Modeling II. | 2 |
|  |  | Mathematics 151, Calculus II . | 4 |
|  |  | Physics 195, Principles of Physics | 3 |
|  | 16 |  | 18 |
| ${ }^{+}$Summer Semester | Units |  |  |
| GE Life Science..................................... | 3 |  |  |
| GE Humanities ........................................ | 3 |  |  |
|  | 6 |  |  |


| Fall Semester | Units | Spring Semester | Units |
| :---: | :---: | :---: | :---: |
| M E 203, Computer Program. and Applic. | 2 | Take the Writing Proficiency Assessment Examination |  |
| M E 240, Intro. to Engineering Materials | 3 | CIV E 301, Intro. to Solid Mechanics ........... | 3 |
| M E 241, Materials Laboratory . | 1 | E E 203 or E E 204 |  |
| E M 200, Statics | 3 | Principles of Electrical Engineering | 3 |
| Mathematics 252, Calculus III. | 4 | ENGR 280, Methods of Analysis | 3 |
| PHYS 196 \& 196L, Principles of Physics. | 4 | E M 220, Dynamics | 3 |
|  |  | Physics 197, Principles of Physics | 3 |
|  |  | GE Humanities. | 3 |
|  | 17 |  | 18 |


| JUNIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall Semester | Units | Spring Semester | Units |
| M E 310, Engr. Design: Introduction | 3 | M E 312, Simulation of Engr. Systems... | 3 |
| M E 340, Materials, Manufac. and Design .... | 3 | M E 314, Engr. Design: Mech. Comp. ... | 3 |
| M E 350, Thermodynamics | 3 | M E 330, Control Systems Laboratory | 3 |
| E M 340, Fluid Mechanics | 3 | M E 351, Engineering Thermodynamics.. | 3 |
| E M 341, Fluid Mechanics Laboratory. | 1 | M E 452, Principles of Heat Transfer.. | 3 |
| GE Explorations | 3 | GE Explorations. | 3 |
|  | 16 |  | 18 |



[^29]
## Educational Objectives

The objectives of the mechanical engineering program are:

1. To instill in students an open minded but critical approach to the analysis of problems and design of systems, keeping in mind the technical, professional, societal, economic, and ethical dimensions of any solution.
2. To prepare students for successful careers and to have an appreciation of the need for life-long learning in a rapidly changing field.
3. To give students a significant exposure to the humanities and social sciences in order to broaden their appreciation of the world and provide an understanding of the role that engineering plays in society.
Mechanical engineering students will graduate with the following abilities: a strong grounding in the fundamentals; knowledge of mathematics, science, and engineering; design and conduct experiments, analyze and interpret data; design a system, component, or process to meet desired needs; function on multidisciplinary teams; identify, formulate, solve engineering problems; understanding of professional and ethical responsibility; communicate effectively; understand impact of engineering solutions in a global and societal context; recognition of need for and an ability to engage in life-long learning; knowledge of contemporary issues; techniques, skills, and modern engineering tools necessary for engineering practice; apply advanced mathematics through multivariate calculus and differential equations; familiarity with statistics and linear algebra; work professionally in both thermal and mechanical systems areas including the design and realization of such systems; be computer literate and Internet competent; and knowledge of chemistry and calculus-based physics.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement

## Mechanical Engineering Major

With the B.S. Degree (Major Code: 09101)
NOTE: Refer to chart 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. The major consists of 52 upper division units. 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 known 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.

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.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Master Plan. The master plan provides an advising record for mechanical engineering majors and must be initiated by the student with their faculty adviser during the second semester of the freshman year. Transfer students must comply with this requirement prior to enrollment in Mechanical Engineering 310. The master plan must be reviewed each semester with the faculty adviser before registration, and submitted to the Office of Advising and Evaluations the semester prior to graduation.

## Courses (ME)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## M E 101. Solid Modeling I (2)

Six hours of activity.
Computer-aided solid modeling, including engineering documentation, dimensioning and tolerancing per ASME Y14.5M-1004. Elementary sketching and dimensioning of orthographic and pictorial drawings and sections. (Formerly numbered Engineering 190.)

M E 102. Solid Modeling II (2)
Six hours of activity.
Prerequisite: Mechanical Engineering 101.
Continuation of computer-aided solid modeling and engineering documentation with geometric tolerancing, thread, and thread notations per ASME Y14.5M-1994. Finite element analysis (FEA) of mechanical components. (Formerly numbered Engineering 195.)

## M E 203. Computer Programming and Applications (2) I

Six hours of activity.
Prerequisites: Mechanical Engineering 101 and Mathematics 151 Recommended: Mechanical Engineering 102.

Principles of programming using C and Java. Graphical programming using Labview. Topics include data types, loops, control flow, arrays, memory acquisition, data structures. Applications related to mechanical system components. (Formerly numbered Mechanical Engineering 290.)

M E 205. Simulation of Physical Systems (2) II
Six hours of activity.
Prerequisites: Mechanical Engineering 102, 203, Mathematics 252.

Mechanical mechanisms and dynamic simulation analyses. Construction of web-based virtual machines which operate according to physics. Typical machines include roller coaster, machining center, gear assemblies, stress testing devices, crane and bridges. Network communication software used to connect virtual machines using Java3D. (Formerly numbered Mechanical Engineering 295.)

## M E 240. Introduction to Engineering Materials (3) I, II

Prerequisites: Chemistry 202 and credit or concurrent registration in Engineering Mechanics 200 or 202. Proof of completion of prerequisites required: Copy of transcript and 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. Examples of material structure relevant to civil, electrical, aerospace, and mechanical engineering applications. (Formerly numbered Mechanical Engineering 260.)

## M E 241. Materials Laboratory (1) I, II

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Mechanical Engineering 240.

Experimental methods used to characterize engineering materials and their mechanical behavior

## M E 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 <br> (Intended for Undergraduates)

NOTE: Proof of completion of prerequisites required for all Mechanical Engineering 300-, 400-, and 500-level courses: Copy of transcript is acceptable as proof. In addition, Mechanical Engineering 351, 490A, and 530 require evidence of concurrent registration in appropriate courses.
M E 310. Engineering Design: Introduction (3) I, II
Two lectures and three hours of guided design activities.
Prerequisites: Mechanical Engineering 102, 203, and Engineering Mechanics 220. 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 and projects are completed.

## M E 312. Simulation of Engineering Systems (3) I, II

Prerequisites: Mechanical Engineering 203, 350; Civil Engineering 301; Electrical Engineering 203; Engineering 280; Engineering Mechanics 340 .

Modeling, simulation, and analysis of various mechanical systems: dynamic, vibrational, electromechanical, thermodynamic, and fluidic. Circuits for monitoring and controlling mechanical systems. (Formerly numbered Mechanical Engineering 512.)

M E 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.
M E 330. Control Systems Laboratory (3) I, II
Two lectures and three hours of laboratory.
Prerequisites: Mechanical Engineering 203; Electrical Engineering 203; Engineering 280; Engineering Mechanics 220, 340; Linguistics 200 or Rhetoric and Writing Studies 200.

Control theory (e.g. stability, feedback, PID control) with applications in microprocessor-based control of dynamic, vibrational, and mechatronic systems. "Bread-boarding" and BASIC programming of microcontrollers and graphical programming of PC-based controller interfaces.
M E 340. Materials, Manufacturing, and Design (3) I, II
Prerequisites: Mechanical Engineering 240, 241; Civil Engineering 301.

Fabrication and thermomechanical processing effects on properties and service behavior of engineering materials. Fracture mechanics and materials behavior under a range of design conditions. Design criteria for engineering materials including fatigue and creep. Case studies and failure analysis techniques.

## M E 350. Thermodynamics (3) I, II

Prerequisites: Mathematics 252 and Engineering Mechanics 200.
Basic concepts and principles of thermodynamics with emphasis on simple compressible substances. First and second law analysis, entropy, exergy analysis and state relations.

## M E 351. Engineering Thermodynamics (3) I, II

Prerequisites: Mechanical Engineering 350 and credit or concurrent registration in Engineering Mechanics 340.

Analysis and design of gas and vapor power cycles, and refrigeration systems. Generalized property relations for gases and gas-vapor. Air-conditioning. Combustion and chemical equilibrium. Design of engineering systems and processes. (Formerly numbered Mechanical Engineering 450.)

## M E 352. Thermodynamics and Heat Transfer (3) I, II

Prerequisites: Engineering Mechanics 200 or 202 and Mathematics 252.

First and second laws of thermodynamics; heat conduction, convection and radiation. Not acceptable for mechanical engineering majors.

## M E 452. Principles of Heat Transfer (3) I, II

Prerequisites: Mechanical Engineering 350 and Engineering Mechanics 340 .

Analytical and numerical solutions of steady and transient oneand two-dimensional conduction problems, forced and natural convection in external and internal flows, and thermal radiation. Applications. (Formerly numbered Mechanical Engineering 470.)

## M E 490A-490B. Engineering Design: Senior Project (2-2) I, II

Six hours of guided design activities.
Prerequisites for 490A: Mechanical Engineering 312, 314, 330, 340, 351, 452. Biology students enrolling in this course must have completed Biology 366, Civil Engineering 301, Electrical Engineering 203, Mechanical Engineering 352, and have credit or concurrent registration in Biology 590.

Prerequisites for 490B: Mechanical Engineering 490A, 495, 514. Biology majors: Mechanical Engineering 490A and Biology 590.

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. In addition, issues related to ethics and engineering practice are discussed.

## M E 495. Mechanical and Thermal Systems Laboratory (2) I, II

One lecture and three hours of laboratory.
Prerequisites: Mechanical Engineering 314, 330, 351, 452.
Data acquisition theory, instrumentation, sensors, data reduction, statistical and uncertainty analysis, and design of experiments. Experience in designing, performing, and reporting experiments on mechanical and thermal systems, mechanisms, vibrations, structures, thermodynamics, heat transfer.
M E 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 nine units for any combination of Mechanical Engineering 496, 499 and 596.

M E 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 351, 490A, and 530 require evidence of concurrent registration in appropriate courses.

## M E 514. Advanced Machine Design (3) I, II

Prerequisites: Mechanical Engineering 314 and 340.
Application of advanced mechanics of materials to design and analysis of mechanical elements. Probabilistic design and finite element methods and applications. Design projects involve extensive use of finite element programs. (Formerly numbered Mechanical Engineering 510.)

## M E 520. Introduction to Mechanical Vibrations (3)

Prerequisites: Mechanical Engineering 312 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.

## M E 530. Automatic Control Systems (3)

Prerequisite: Mechanical Engineering 312.
Dynamic characteristics of control components and systems. Stability and response of closed loop systems. Design of control systems.

## M E 540. Nonmetallic Materials <br> (3)

Prerequisites: Mechanical Engineering 314 and 340.
Fundamentals of ceramics, polymers, and composite materials. Materials design and selection. Statistical methods of brittle materials design, appropriate for ceramic materials, and rheological modeling of polymeric materials. Stress and strain analysis using classical lamination theory of multi-ply composite laminates.

## M E 542. Manufacturing with Nonmetallic Materials (3)

Prerequisites: Mechanical Engineering 340 and Engineering 280 with a grade of C or better.

Engineering polymers and composites, processes, and manufacturing techniques. Polymer flow in extrusion, compression molding, RTM, and calendaring. Hands-on fabrication and test exercises included along with a capstone manufacturing project.

## M E 546. Computer Aided Manufacturing (3)

Prerequisites: Mechanical Engineering 102, 314, 340; and Engineering 280 with a grade of C or better.

Computer controlled manufacturing and assembly techniques and devices. Databases and special languages. Agile manufacturing soft ware programs and technologies.

## M E 552. Heating, Ventilating, and Air-Conditioning

Prerequisites: Mechanical Engineering 351 and 452
Fundamentals of air conditioning processes, psychrometrics, and building cooling load calculations. Design and analysis of HVAC systems. Equipment selection. Design codes and standards. Computerized cooling load calculations. (Formerly numbered Mechanical Engineering 582.)

## M E 555. Thermal Systems Analysis and Design (3)

Prerequisites: Mechanical Engineering 351 and 452.
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. (Formerly numbered Mechanical Engineering 570.)

## M E 556. Solar Energy Conversion (3)

Prerequisites: Engineering Mechanics 340, Mechanical Engineering 351 and 452.

Application of thermodynamics, fluid mechanics and heat transfer to the thermal design of solar energy conversion systems. Computer simulations utilized. (Formerly numbered Mechanical Engineering 586.)

## M E 580. Biomechanics (3)

Prerequisites: Civil Engineering 301 and Engineering Mechanics 340.

Application of engineering methodologies for quantitative understanding of biological/physiological phenomena. Continuum mechanics principles. Cardiovascular system and its components viewed from a mechanistic standpoint. (Formerly numbered Mechanical Engineering 590.)

## M E 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.


# Military Science 

In the College of Professional Studies and Fine Arts

## Faculty

Chair: Rideout
Professor: Rideout
Assistant Professors: Henry, Rogers, Vasquez

## 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 a two, three, and fouryear 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 communication skills, military history, and computer literacy. In addition, the advanced course consists of a paid five-week Advanced Camp held during the summer between the junior and senior years. This camp permits students to put into practice the leadership 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 $\$ 4,000$ 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 five-week summer Leaders Training Course (LTC), Military Science 221, provides the military skills and leadership training normally taught during the freshman and sophomore on-campus courses. LTC is conducted at Fort Knox, Kentucky, and a paid salary, transportation, meals, and lodging will be furnished. LTC graduates enroll in Military Science 301 to enter the advanced course.

## Cross Enrollment

Students can participate in Army ROTC while attending any other college or university in San Diego County. 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 two, three, and four-year scholarships. These scholarships cover all tuition, laboratory, and book fees, and a $\$ 350$ 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 Leaders Training Course (LTC) at Fort Knox, Kentucky, where you will be in competition only with the students attending the camp. Contact the department chair for details. Paid positions (parttime) 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 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 in residence at San Diego State University.

## Courses (mil s)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## MIL S 96. Leadership Laboratory (1) I, II

Application of individual skills and military tasks appropriate to a small unit leader. Prepares cadets for higher level leadership positions. Emphasis is on performance in leader roles which includes instruction. Maximum credit two units. Credit earned in this course not applicable to a bachelor's degree.

## MIL S 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.

## MIL S 210. Contemporary Military Leadership Theories: Individuals and Groups

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.

## MIL S 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.

## MIL S 221. Cadet Basic Field Training (3)

Prerequisite: Sophomore standing.
Five-week field training with training in structure, organization, and missions of the US Army; officer leadership, development, and responsibilities; basic military skills; personal conditioning; oral and written military communications.

## MIL S 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)

## MIL S 301. Skills of Military Leadership (3) I

Prerequisite: Equivalent of two-year basic course program.
Techniques and skills required of military leaders. Military methods of instruction, review of essential map reading skills and case studies of military leadership techniques.

## MIL S 302. Theory and Dynamics of the Military Organization (3) II

Prerequisite: Equivalent of two-year basic course program.
Current tactical doctrine and military techniques of planning and coordination required to apply doctrine to small unit operations.
MIL S 410. Senior Leadership Seminar (3) I, II
Prerequisites: Military Science 301 and 302.
Leadership and management problems encountered in a midlevel sized organization. Role of the junior officer. Designed to prepare senior cadets for positions as leaders and managers of resources at the platoon/company level.
MIL S 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 courtmartial ethics and decision-making.

## MIL S 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.
MIL S 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 112
TELEPHONE: 619-594-6031
FAX: 619-594-1692
E-MAIL: music.dance@sdsu.edu

## Faculty

Emeritus: Almond, Anderson, Barra, Biggs, Blyth, Bruderer, Brunson, Estes, Forman, Genzlinger, Hill, Hogg, Lambert, Loomis, Meadows, Mitchell, Moe, Peterman, Sheldon, Ward-Steinman, Yates
Director: Chambers
Professors: Chambers, Dutton, Follingstad, Kolar, Liebowitz, Logan, O'Donnell, Stauffer, Yeager
Associate Professors: Helzer, McDonald, Waters
Assistant Professors: Delgado, Friedrichs, Olschofka, Rewoldt, Thompson
Lecturers: Flood, Nikkel, Warman

## Applied Music Instruction

Piano: Darby, Follingstad, Kolar
Harpsichord: Paul
Organ: Plimpton
Voice: Chambers, MacKenzie, Nikkel, Tweed, Westbrook, Whitaker
Flute: Bell, Payne
Oboe: Barrett, Bittar, Reed
Clarinet: Liebowitz
Saxophone: Rewoldt, Rekevics
Early Instruments: Peterman
Bassoon: Schoneman
French Horn: Gref, Lorge
Trumpet: Glasson, Wilds
Trombone: Fellinger, Yeager
Baritone Horn: Dutton
Tuba: Dutton
Percussion: Flood
Violin: Constantino, Olschofka
Viola: Chen, Gerard
Cello: Stauffer
Contrabass: Kurtz, Magnussen
Harp: Mashkovtseva
Classical Guitar: Benedetti, Romero, Svoboda, Wetzel
Jazz Guitar: Boss
Composition: Dutton, Stauffer, Waters
Non-Western Instruments: Specialists from specific cultures as available each semester
Jazz Studies: Helzer, Thompson, Yeager
Opera: Evans-O'Connor

## Offered by the School of Music and Dance

Master of Arts degree in music.
Master of Music degree.
Major in music with the B.A. degree in liberal 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.
Certificate in artist diploma, advanced
(refer to the Graduate Bulletin).

## The Major

Music serves to enhance the lives of all peoples and provides a challenging avenue of creative expression for those who wish to pursue its serious study. The School of Music and Dance offers an innovative and comprehensive musicianship program as part of the curriculum of all music majors that includes the study of music from several different cultures. For students seeking a professional degree (Bachelor of Music) this program is designed to ensure that students learn to function as a conductor, performer, teacher, coach, editor, or arranger. All students receive instruction in sight-reading, sightsinging, improvisation and music composition.

The Bachelor of Music program is for those students who have professional ambitions in music performance, public school teaching, composition, jazz studies, as a music generalist or seek a foundation for graduate study leading to college or university teaching or research positions. This program strongly emphasizes the professional aspects of music. The Bachelor of Music degree, with a specialization in Music Education leads to the California Single Subject Teaching Credential.

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, or arranger, professional musician with an orchestra, band, or opera company.

The Bachelor of Arts degree is a liberal arts degree for those students who seek an understanding of and an intimate orientation to the discipline of music without professional goals. This degree enables students to obtain this broad understanding.

Several Music Minor options are available for those students whose primary interest is in another department.

## Advising

All music majors are required to consult with their music faculty adviser as soon as possible; they are required to meet with their faculty adviser within the first two semesters after acceptance or transfer into the major.

## Music Curricula

## General Basic Requirements

1. All new students and transfer students who wish to enroll as music majors or minors are given placement examinations in music theory and piano and auditions on their major instrument. On the basis of these examinations and auditions, recommendations of specific courses will be made by the music faculty adviser. The specific courses are Music 105, 106A, 106B, 205A, 205B, 305A, 305B, 405A, 405B; 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 instructor'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 in the Bachelor of Music degree program. It is given at the end of each semester and may be retaken until passed. The examination 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. Please see each degree program and specialization for specific unit requirements. At least one-half of these requirements must be met by participation in a "large" ensemble in which the major instrument or voice is used. Refer to the Music Student Handbook for more details.
6. Attendance at and performance in recitals is a requirement of all music majors as set forth in the music recital regulations.
Refer to the Music Student Handbook for detailed information.

## Electives in Music - Non-Majors

The School of Music and Dance offers certain courses for students who are interested in music as an elective study area for the enrichment of their cultural background. Courses particularly suited for these needs are Music 102, 110A, 115, 151, 240, 345, 351A, 351B, 351D, 445 , 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) may be counted toward a bachelor's degree for non-majors.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Music Major

## With the B.A. Degree in Liberal Arts and Sciences <br> (Major Code: 10052)

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 music courses can apply to the degree.

A minor is not required with this major.
Preparation for the Major. Music 104, 105, 110A-110B, 151; four units selected from courses numbered 170 to 189, 204, 205A, 205B, and two units of lower division music electives. (21 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units to include Music 305A, 305B, 308A, 308B, 347; four units selected from courses numbered 369 through 389; 408A, 592, and seven units of upper division music electives.

## Music Major

## With the Bachelor of Music Degree in Applied Arts and Sciences (Major Code: 10041)

All candidates for a bachelor of music degree must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." The maximum number of units in upper division music courses acceptable toward the Bachelor of Music degree is 70 .

A minor is not required with this major.
Preparation for the Major. All majors must fulfill the requirements in one of the following areas of specialization.
(a) General Music. Music 104, 110A-110B, 110C-110D (may be waived in full or in part by examination; Music 115, 151, four units selected from courses numbered 170 through 189; Music 204, 205A, 205B; five units to include Music 220, 225, 230, 235, 240; four units of Music 251; four lower division music electives. (33 units)
(b) Music Education. Music 104, 110A-110B, 110C-110D (may be waived in full or in part by examination); Music 115, 151, four units selected from courses numbered 170 through 189; Music 204, 205A205B; five units to include Music 220, 225, 230, 235, 240; Music 246A246B, four units of Music 251. (33 units)
(c) Performance. Music 104, 110A-110B, 110C-110D (may be waived in full or in part by examination); Music 151; six units selected from courses numbered 170 through 189; Music 204, 205A-205B; four to eight units of Music 251. (25-29 units)
(d) Composition. Music 104, 110A-110B, 110C-110D (may be waived in full or in part by examination); Music 151, six units selected from courses numbered 170 through 189; Music 204, 205A-205B; two units of Music 207; four to six units of Music 251. (27-29 units)
(e) Jazz Studies. Music 104, 151, 166; six units selected from courses numbered 170 through 189; Music 204, 205A-205B; four to eight units of Music 251; Music 266. (25-29 units)

## Language Requirement.

1. Vocalists in Performance-competency (equivalent to that which is normally attained in one semester of college study) in French, German, and Italian.
2. Jazz Studies - no language equivalency required.
3. Music Education-competency (equivalent to that which is normally attained in two semesters of college study) in Spanish.
4. All Others-competency (equivalent to that which is normally attained in two semesters of college study) in French, German, Italian, or Spanish.
Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

## Major.

(a) General Music. Music 305A-305B, 308A-308B; Music 347; one unit of Music 348 or 349 ; four units selected from music courses numbered 369 through 389; Music 405A-405B, 408A-408B; four units of Music 451; seven units of upper division music electives. (37 units)
(b) Music Education. All candidates for a teacher 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 Bachelor of Music degree. Music 305A-305B, 308A-308B; Music 343 and three upper division music electives, or Music 554B, 554C, and 554E; Music 346, 347; one unit of Music 348 or 349; four units selected from music courses numbered 369 through 389; Music 405A-405B, 408A-408B; Music 446, four units of Music 451. (40 units)
(c) Performance. Music 305A-305B, 308A-308B; Music 347; one unit of Music 348 or 349; Music 367; six units selected from music courses numbered 369 through 389; Music 405A, 408A-408B; eight units of Music 451; Music 497; five units selected from Music 515, 516, 541, 542, 554. (Pianists must include Music 541A and 542A. Vocalists must include Music 541C and 554D). (41 units)

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.
(d) Composition. Music 305A-305B, 308A-308B, 347; one unit of Music 348 or 349 ; six units selected from music courses numbered 369 through 389; Music 405A-405B, 408A-408B; six units of Music 451; Music 497; two units of Music 507; and two units of upper division music electives. (40 units)

The specialization may not be formalized until completion of Music 205B, or waiver by examination.

Students specializing in composition are required to present a concert of their 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.
(e) Jazz Studies. Music 305A-305B, 308A-308B, 347, 364A-364B, 366, 367; six units selected from music courses numbered 369 through 389; Music 405A, 408A; eight units of Music 451; Music 466, 497, 566A-566B. (45 units)

## Performance Studies for Credit

Credit may be allowed for performance studies under the following conditions:

1. Properly enrolled Bachelor of Music majors may enroll for performance studies with resident faculty without an additional fee.
2. Students may under no circumstances change instructors in the middle of a semester without first securing the permission of the director of the School of Music and Dance.
3. Prior to the start of performance studies at San Diego State University, students are required to take a preliminary audition conducted by music faculty which will indicate status at the beginning of their studies.
4. Students who have dropped out of school or have stopped taking performance studies for credit for one semester or more, upon resumption of that instruction for credit are required to present another preliminary audition.
5. At the end of each semester, the School of Music and Dance will sponsor a jury examination to satisfy itself that its standards have been met.
6. Students enrolled in performance studies must be concurrently enrolled in the Comprehensive Musicianship program until such time as the CM requirements are fulfilled.

## Music Minor

To be admitted to the minor program, the student must audition to demonstrate vocal or instrumental performing ability.

The minor in music consists of 24 units in music selected from one of the following areas:

Electronic Music. Requirements include Music 104, 105, 106A, 106B, 110A-110B, 160, 207, 260, 351B, 360; two units of Music 370; Music 460; and two units of Music 507.

Elementary Music Education. Requirements include Music 102, 110A-110B, 115; two units of Music 170-189; four units of Music 220, 225, 230, 235, 240; Music 246A, 343, 345; two units of Music 369-389; and two units of upper division music electives.

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 104, 110A-110B, 151; two units selected from Music 170-189; Music 205A, 205B; 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, $466,566 A^{*}, 566 B^{*}$

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 in residence at San Diego State University.

* Additional prerequisites required.


## Courses (Music)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## MUSIC 101. Recitals (1) Cr/NC I, II

Preparation for individual solo performances and attendance at a minimum of 12 concerts or recitals in accordance with music requirements. Maximum credit four units.

## MUSIC 102. Basic Musicianship for Non-Music Majors (3) I, II

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. For liberal studies and preservice teachers. Not open to students with credit in Music 105.

## MUSIC 104. Music Technology I (1)

Two hours of activity.
Current technology in music composition, ear-training, score preparation, performance and research practices. Open to music majors and minors only. Not open to students with credit in Music 204.
MUSIC 105. Introduction to Elements of Music (2)
Introduction to music from an aesthetic, communicative, theoretical and creative perspective. Development of understanding of aesthetic valuing, musical notation, rhythm, theory, pitch, and musical terminology. Not open to students with credit in Music 102.
MUSIC 106A. Introduction to Aural Skills I (1) Cr/NC
Three hours of activity.
Introduction to sight-singing and music dictation. Not open to students with credit in Music 102.

## MUSIC 106B. Introduction to Aural Skills II (1) Cr/NC

Three hours of activity.
Prerequisite: Music 106A.
Introduction to sight-singing and music dictation continued.
MUSIC 110A-110B. Piano - Elementary Class Instruction (1-1)
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. Music 110A not open to students with credit in Music 110B, 110C, 110D. Music 110B not open to students with credit in Music 110C or 110D.

## MUSIC 110C-110D. Piano - Elementary Class Instruction (1-1)

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. Music 110C not open to students with credit in Music 110D.
MUSIC 115. Voice - Elementary Class Instruction (1) I, II Two hours.
Mastery of the fundamentals of voice. Not open to voice majors.

## MUSIC 151. Introduction to Music (3) [GE] I, II

Elements of music as exemplified by works representing different areas, cultures, styles, and forms. See Class Schedule for specific content.

## MUSIC 160. Introduction to Electro-Acoustic Music (2)

One lecture and two hours of activity.
Historical overview of electro-acoustic music with hands-on introduction to analog multi-trade recording/mixing, digital sequencing with emphasis on shared lineage of classical and popular idioms.

## MUSIC 166. Elements of Jazz I (2)

Fundamental harmonic analysis of basic jazz progressions, common modes and blues scale variations, solo transcription analysis, and ear-training.

## Performance Organization Courses (Music 170 through 189)

The performance organization courses are devoted to the study in detail and the public performance of a wide range of representative literature for each type of ensemble and designed to provide students with practical experience in rehearsal techniques.
MUSIC 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 of three or more players. May be repeated with new content. See Class Schedule for specific content. Maximum credit four units.
MUSIC 174. Concert Band (1)
Five hours.
Prerequisite: Consent of instructor.
Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

## MUSIC 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.

## MUSIC 176. Wind Symphony (1) I, II

Five hours.
Prerequisite: Consent of instructor.
Study and performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

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MUSIC 177. Symphonic Band (1)
    Five hours.
    Prerequisite: Consent of instructor.
    Study and performance of representative literature for the
ensemble. Practical experience in rehearsal techniques. Maximum
credit four units.
MUSIC 180. Symphony Orchestra (1) I, II
    Five hours.
    Prerequisite: Consent of instructor.
    Maximum credit four units.
MUSIC 184. 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.
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MUSIC 185. Concert Choir (1) I, II
Five hours.
Prerequisite: Consent of instructor.
Maximum credit four units.

## MUSIC 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.

## MUSIC 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.

## MUSIC 204. Music Technology II <br> (1)

Two hours of activity.
Prerequisite: Music 104.
Current technology in music composition, ear-training, score preparation, performance, and research practices. Open to music majors and minors only.

## MUSIC 205A. Comprehensive Musicianship (3)

Two lectures and two hours of laboratory.
Prerequisite: Music 105 or passing placement examination.
Music theory, harmony, and musicianship. Instrumentation and notation, composition and arranging. World Music Laboratory: African ensemble and dance. Open to music majors and minors only. Not open to students with credit in Music 205B, 305A, 305B, 405A, 405B.
MUSIC 205B. Comprehensive Musicianship (3)
Two lectures and two hours of laboratory.
Prerequisite: Music 205A with a grade of C (2.0) or better.
Tonal harmony in the common-practice period. Composition with ostinato forms. World Music Laboratory: Javanese gamelan. Open to music majors and minors only. Not open to students with credit in Music 305A, 305B, 405A, 405B.
MUSIC 206A-206B. Aural Skills (1-1) Cr/NC
Prerequisite for Music 206A: Music 106B. Prerequisite for Music 206B: Music 206A.

Preparation for Junior Level Aural Skills Examination. For music majors only.
MUSIC 207. Composition Laboratory
Three hours of laboratory.
Prerequisite: Consent of instructor.
Original writing in different homophonic and polyphonic forms for various media. Maximum credit two units.

## MUSIC 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.
MUSIC 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.

## MUSIC 230. Brass - Elementary Class Instruction (1)

Two hours.
Fundamentals of brass instruments by lecture and acquisition of elementary skills.

MUSIC 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. Not open to percussion majors.

## MUSIC 240. Guitar - Elementary Class Instruction

Two hours.
Open to all students interested in fundamentals of guitar and elementary music skills. Not open to guitar majors.
MUSIC 246A. Practicum in Music Education I (2)
One lecture and two hours of activity.
Prerequisite: Music 205B.
Introduction to music education. Exposure to music teaching profession at all grade levels before choosing an area of specialization.
MUSIC 246B. Practicum in Music Education II (2)
One lecture and two hours of activity.
Prerequisite: Music 246A with a grade of $C$ (2.0) or better.
Methods and materials. Development of lesson plan and selection of appropriate materials and methods. Rehearsal techniques for elementary, junior high, and high school. Observations of public school master teachers.
MUSIC 251. Performance Studies (1-2) I, II
Fifteen one-half hour private lessons for one unit; fifteen one-hour private lessons for two units.

Prerequisite: Open only to music majors. Audition and approval by music faculty.

Studies in technical, stylistic, and aesthetic elements of artistic performance. Maximum credit for Music 251 is eight units.
A. Keyboard
G. Classical Guitar
B. Voice
H. Harp
C. Woodwinds
I. Jazz Instruments
D. Brass
E. Percussion
J. Medieval or Renaissance Instruments
F. Strings
K. Non-Western Instruments

MUSIC 260. Electro-Acoustic Music Composition I
(2)

One lecture and two hours of activity.
Prerequisite: Music 160.
Sound sampling, musique concrete, subtractive synthesis, physics of sound and basic digital audio theory. Emphasis on application of techniques and theoretical knowledge to produce original musical compositions.

## MUSIC 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.

## MUSIC 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)
## MUSIC 301. Recitals (1) Cr/NC I, II

Preparation for individual solo performances and attendance at a minimum of 12 concerts or recitals in accordance with music requirements. Maximum credit four units.

## MUSIC 305A. Comprehensive Musicianship (3)

Two lectures and two hours of laboratory.
Prerequisites: Music 205B with a grade of $C$ (2.0) or better. Concurrent registration in Music 308A.

Counterpoint in 16th and 18th century styles. Composition of a twovoice motet and three part fugue. Instrumentation and choral reading. World Music Laboratory: South Indian rhythmic skills. Open to music majors and minors only. Not open to students with credit in Music 305B, 405A, 405B.

MUSIC 305B. Comprehensive Musicianship (3)
Two lectures and two hours of laboratory.
Prerequisites: Music 305A with a grade of C (2.0) or better. Concurrent registration in Music 308B.

Theory and harmony of 19th and early 20th centuries. Analytic techniques, composition in sonata form. World Music Laboratory: Latin American ensemble. Open to music majors and minors only. Not open to students with credit in Music 405A and 405B.
MUSIC 308A. Music History: Medieval - Renaissance (2)
One lecture and two hours of laboratory.
Prerequisites: Music 151. Concurrent registration in Music 305A.
European art music from ancient Greece through the Renaissance. Evolution of musical style in a historical and cultural context. Interrelationships of music, politics, technology, economics, and ideology. Open to music majors and minors only.
MUSIC 308B. Music History: Baroque - Classic
One lecture and two hours of laboratory.
Prerequisite: Music 308A. Concurrent registration in Music 305B.
European art music from 1600 to 1830 . Evolution of musical style as a response to historical and cultural context. Interrelationships of music, politics, technology, economics, and ideology. Open to music majors and minors only.

## MUSIC 343. Music Literature for Children (3) I, II

Prerequisite: Music 102 or 205B.
Analytical study of music suitable for children of all ages. Background information, musical structure and functions of this music in the lives of children.

## MUSIC 345. World Music in Contemporary Life (3) [GE] 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. Not open to music majors.
MUSIC 346. Practicum in Music Education III (2)
One lecture and two hours of activity.
Prerequisites: Music 110B and 246B 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.
MUSIC 347. Conducting (1)
Prerequisite: Music 205B 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.
MUSIC 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.

## MUSIC 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.

## MUSIC 351. Great Music (3) [GE]

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. Not open to music majors.
A. Musical Masterpieces of the Eighteenth and Nineteenth Centuries
B. Musical Masterpieces of the Twentieth Century
D. Jazz in America

MUSIC 360. Electro-Acoustic Music Composition II (2)
One lecture and three hours of laboratory
Prerequisite: Music 260.
Concepts, terminology, and history combined with composition and recording projects introducing analog electro-acoustic music with multi-track recording and analog synthesizers; or digital electro-acoustic music using digital synthesizers and computer software. May be repeated with new content. Maximum credit four units.
MUSIC 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.

## MUSIC 366. Elements of Jazz III <br> (2)

Prerequisite: Music 266.
Post bop repertoire, altered modes and scales, solo transcription, analysis, and ear-training.
MUSIC 367. Junior Recital (1) Cr/NC I, II
Prerequisite: Junior standing in music.
Selection of literature for recital program not to exceed 30 minutes in length; theoretical analysis and historical study of scores chosen; preparation and public performance; and examination before committee of music faculty.

## Performance Organization Courses <br> (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.

## MUSIC 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.
MUSIC 370. 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 of three or more players. May be repeated with new content. See Class Schedule for specific content. Maximum credit four units.

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MUSIC 374. Concert Band (1)
Five hours.
Prerequisite: Consent of instructor.
Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.
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## MUSIC 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.

## MUSIC 376. Wind Symphony (1) I, II

Five hours per week.
Prerequisite: Consent of instructor.
Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

## MUSIC 377. 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.

## MUSIC 380. Symphony Orchestra <br> (1) I, II

Five hours.
Prerequisite: Consent of instructor.
Maximum credit four units.
MUSIC 384. 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.
MUSIC 385. Concert Choir (1) I, II
Five hours.
Prerequisite: Consent of instructor.
Maximum credit four units.
MUSIC 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.

MUSIC 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.

## MUSIC 405A. Comprehensive Musicianship (3)

Two lectures and two hours of laboratory.
Prerequisites: Music 305B with a grade of C (2.0) or better. Concurrent registration in Music 408A.

Harmony and counterpoint in the 20th century, from Impressionism to present. Analysis and composition in post-tonal or 12-tone techniques. World Music Laboratory: Asian or folk ensemble. Not open to students with credit in Music 405B.

## MUSIC 405B. Comprehensive Musicianship (3)

Two lectures and two hours of laboratory.
Prerequisites: Music 405A with a grade of C (2.0) or better. Concurrent registration in Music 408B.

Musical developments in last half of 20th century. Independent projects in composing and arranging for small and large ensembles. Laboratory: New music ensemble. Open to music majors and minors only.

MUSIC 408A. Music History: Romantic - Twentieth Century
One lecture and two hours of laboratory.
Prerequisites: Music 308B. Concurrent registration in Music 405A.
European art music from 1800 to present. Evolution of musical style in a historical and cultural context. Interrelationships of music, politics, technology, economics, and ideology. Open to music majors and minors only.
MUSIC 408B. Music History: Jazz Survey and Improvisation (2)
One lecture and two hours of laboratory.
Prerequisites: Music 408A. Concurrent registration in Music 405B.
Historical and theoretical overview of jazz art music tradition.
Rhythmic, harmonic, and melodic components. Analytical score study. Practical experience in modal and tonal jazz improvisation. Open only to music majors and minors.

## MUSIC 445. Performing Arts and Culture

(1)

Prerequisite: Upper division standing.
Exploration of traditional performing arts of different contemporary world cultures, with emphasis on kinesthetic and psychological aspects of experience of performance. Open to all upper division students. May be repeated with new content. Maximum credit three units.

MUSIC 446. Practicum in Music Education IV (2)
One lecture and two hours of activity.
Prerequisites: Music 110C, 206B, 346, 347 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 discussed.

## MUSIC 451. Performance Studies (1-2) I, II

Fifteen one-half hour private lessons for one unit; fifteen one-hour private lessons for two units.

Prerequisite: Open only to music majors. Audition and approval by music faculty.

Studies in technical, stylistic, and aesthetic elements of artistic performance. Maximum credit for Music 451 is eight units.
A. Keyboard
G. Classical Guitar
B. Voice
H. Harp
C. Woodwinds
I. Jazz Instruments
D. Brass
J. Medieval or Renaissance instruments
E. Percussion
K. Non-Western Instruments
F. Strings
L. Composition

MUSIC 460. Art of Recording (3)
Two lectures and three hours of activity.
Prerequisite: Music 360.
Creation of audio recordings of artistic merit. Vocal/instrumental microphone techniques for classical, jazz, rock; recording audio design, construction; acoustical properties, theories, mathematics.

## MUSIC 466. Elements of Jazz IV <br> (2)

Prerequisite: Music 366.
Atonal and aeromedical theories and philosophy, research paper, solo transcription, analysis, and ear-training.
MUSIC 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.
MUSIC 497. Senior Recital (2) Cr/NC I, II
Prerequisite: Senior standing in music.
Selection of literature for recital program not to exceed one hour in length; theoretical analysis and historical study of scores chosen; preparation and public performance; and examination before committee of music faculty.
MUSIC 499. Special Study (1-3) I, II
Prerequisite: Consent of the music director.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)
MUSIC 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.
MUSIC 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.

## MUSIC 516. Performance Practice Forum (1)

Two hours of activity.
Prerequisite: Consent of instructor.
Musical style, repertoire, presentation, and evaluation as embodied in a musical performance. May be repeated with new content. Maximum credit four units.

MUSIC 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

MUSIC 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 bet-
ter. 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

MUSIC 543. Diction (1)
Principles of pronunciation and enunciation. Application to song and opera in English, Italian, German, and French.

## MUSIC 554. Music Literature (2)

Prerequisite: Music 205B with a grade of C (2.0) or better.
Study of literature in 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. Orchestral Literature
C. Band Literature
D. Song Literature
E. Choral Literature
G. Keyboard Literature (Seventeenth Century through Beethoven)
H. Keyboard Literature (Schubert to the Present)

MUSIC 561. Area Studies: Ethnomusicology (3)
Prerequisite: Music 305B with a grade of C (2.0) or better.
Music of a specific culture. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.
MUSIC 566A-566B. Jazz Arranging and Composition (2-2)
Prerequisite: Music 305B with a grade of C (2.0) or better.
Analysis of jazz compositions and arrangements; arranging and
composing for large and small jazz ensembles.
MUSIC 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.

## MUSIC 570. Advanced Chamber Music <br> (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, vocal, and mixed ensemble groups of three or more players. May be repeated with new course content. See Class Schedule for specific content. Maximum credit four units.

## MUSIC 576. Wind Symphony (1) I, II

Five hours.
Prerequisite: Consent of instructor.
Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

## MUSIC 577. 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.

## MUSIC 580. 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.

## MUSIC 584. 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.

## MUSIC 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.

## MUSIC 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.

## MUSIC 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.

## MUSIC 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.

## MUSIC 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.

## MUSIC 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

# Administered by the Department of Physics 

## Faculty

Emeritus: Dessel, Dowler, Feher, Fisher, May, Thompson, Wallace Program Coordinator: Roeder, P.
Faculty: Goldberg (Physics), Kimbrough (Geological Sciences), Metzger (Chemistry and Biochemistry), Riggs (Geological Sciences)

## Offered by Natural Science

Teaching major in physical science for the single subject teaching credential in science/physical science.
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 physics with chemistry, geology, astronomy, biology, and mathematics. The major is designed primarily for students who intend to become high school teachers of both interdisciplinary science and physics.

One of the requirements for acceptance into the College of Education's post-baccalaureate credential program is to either pass the appropriate CSET examinations or complete an approved academic program. The single subject teaching credential in science subject matter preparation program described below satisfies the academic requirements for a student planning to teach integrated science and physics at the secondary level. Entrance into the post-baccalaureate credentialing program in part requires certification of subject matter competency by this program. This certification requires completion of the academic program with the required grades, submission of a satisfactory portfolio, and the recommendation of the department. Contact the subject matter preparation program adviser. In addition, all candidates for a Single Subject Teaching credential at San Diego State University must complete the requirements outlined in the catalog under Teacher Education or Policy Studies. Contact the School of Teacher Education or the Policy Studies in Language and Cross-Cultural Education department for up-to-date information on prerequisites

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Physical Science Major

In preparation for the Single Subject Teaching Credential
in Science/Physical Science
With the B.A. Degree in Applied Arts and Sciences
(Major Code: 19011)

The physical science major in preparation for the single subject teaching credential in science/physical science has been submitted to the California Commission on Teacher Credentialing for approval.

Contact Dr. Phoebe Roeder for additional information.

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of the catalog on "Graduation Requirements." Candidates may complete one of their two American Institutions courses at the upper division level or satisfy the California state and local government portion of American Institutions by passing the California Government examination available through the Student Testing, Assessment and Research Office.

A minor is not required for this major.
Preparation for the Major. Africana Studies 140 or Chicana and Chicano Studies 111A or Communication 103; Astronomy 109, 201; Biology 201A, 201B; Chemistry 200, 201; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, 197L; Teacher Education 211 (1 unit). (50 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 31 upper division units to include Natural Science 315; Geological Sciences 412; Mathematics 342A; Physics 311, $317,350,354,357,360,400 A$.

## Additional Requirements for Subject Matter Preparation Certification

Satisfactory Grades. A 2.0 or higher grade point average based on all upper division courses is required for the major. At most one course with a C- or lower among the courses listed under Preparation for the Major, and at most one course with a C- or lower among the courses listed under the Major. If a course is repeated, the highest grade will count.

Formative Assessment. Completion of a satisfactory, preliminary portfolio two semesters prior to graduation. Contact the subject matter preparation adviser for information.

Summative Assessment. Completion of a satisfactory, final portfolio, and a positive recommendation from a committee consisting of the instructor of Physics 357, the Department of Physics chair, and the subject matter preparation program adviser.

## Minor in History of Science and Technology

No new students are being accepted. Contact Dr. Phoebe Roeder for information.

The minor in the history of science and technology consists of a minimum of 15 units to include Natural Science 315, 317; History 441; 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 in residence at San Diego State University.

[^30]
## Courses (NsCl)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSE

## N SCI 100. Physical Science (3) [GE] I, II

Conceptual approach to major issues in physics and chemistry, including principles of motion and energy and structure and properties of matter. Effects of physical science and technology on individuals and human society.

## UPPER DIVISION COURSES

(Intended for Undergraduates)

## N SCl 310. Science in Science Fiction (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Comparison of science portrayed in science fiction literature and mass media with science as understood by practicing scientists, emphasizing theoretical frameworks such as relativity, quantum mechanics, and evolution, and how authors work within or against such frameworks.

## N SCI 315. History of Science and Technology (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Ethical, moral, social, and cultural implications of significant issues and ideas in science and technology. History of development of these ideas from ancient Greek thinkers to contemporary scientists.

## N SCI 317. Development of Scientific Thought (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

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.

## N SCl 333. Technology and Human Values (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Development of technology from the Middle Ages to present. Ethical, moral, social, cultural, and organizational implications as to how societies acquire technology.

## N SCI 412. Processes and Inquiry in the Physical <br> Sciences (4) I, II

Three lectures and two hours of activity.
Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Investigation of processes of inquiry and rational thinking skills characteristic of the physical sciences. (Formerly numbered Natural Science 412A.)

## UPPER DIVISION COURSE

## (Also Acceptable for Advanced Degrees)

## N SCI 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: Communication 130
TELEPHONE: 619-594-3730, 619-594-1135
FAX: 619-594-7848
FAX: 619-260-6821

## Faculty

Chair: Turley
Professor: Turley
Associate Professor: Pittner
Assistant Professors: Brusca, Groeneveld, Leister, Mills, Reardon, Shelley

## Offered by the Department

Minor in naval science.

## NROTC Curriculum

The naval science program provides college students desiring to become naval or marine corps reserve officers a basic professional background in the areas of leadership, ethics, and management; piloting and celestial navigation; nautical rules of the road; ship characteristics, design and propulsion; theory and employment of weapon systems; and development of warfare and amphibious operations. This curriculum is open to all university students. A graduate will be able to assume, through development of mind and character, the highest responsibilities of command, citizenship, and government.

The primary objectives of the Naval Science department curriculum are to provide:

1. An understanding of the fundamental concepts and principles of naval science;
2. A basic understanding of associated professional knowledge;
3. An appreciation of the requirements for national security;
4. A strong sense of personal integrity, honor and individual responsibility; and,
5. An educational background which will allow naval science students to undertake successfully, in later periods in their careers, advanced and continuing education in a field of application and interest to the Navy or Marine Corps.

## Naval Science Minor

The minor in naval science consists of a minimum of fifteen units in naval science, 12 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 in residence at San Diego State University.

## Courses (nav s)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

NAV S 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; ethics and basic leadership skills.

## NAV S 102. Naval Ships Systems I (3) II

Ship characteristics and types including hull, electrical, auxiliary systems, stability and damage control. Operation advantages and disadvantages of steam, gas turbine, and diesel propulsion engines receive in-depth study. Leadership topics in an engineering setting.

## NAV S 201A. Naval Leadership and Management I (3) I

Prerequisites: Naval Science 101 and 102.
Ethics and integrity, progressing through management theory and practical functions of management, culminating with module on leadership. Exposure to complex ethical, managerial, and leadership issues. (Formerly numbered Naval Science 401.)

## NAV S 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)

## NAV S 301. Navigation (3)

Piloting, navigation, and maneuvering. Use of charts, visual and electronic aids, operation of magnetic and gyro compasses, relativemotion vector analysis, formation tactics, and ship employment. Other topics include tides, currents, wind and weather, navigation instruments and characteristics of electronic navigation.
NAV S 302. Naval Operations (3)
Prerequisite: Naval Science 301.
Rules of nautical road, naval operations and operations analysis, ship handling, and afloat communications. Case analyses stress practical application of skills. Leadership traits in themes of communication counseling, and conflict resolution applicable to navigation and ship movement.

## NAV S 310. Evolution of Strategic Operations (3) II

Forms of warfare through history to formulate sense of historical continuity in 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.

## NAV S 401A. Naval Ships Systems II <br> (3) I

Prerequisite: Naval Science 302.
Develop working foundation and understanding of diversity and complexity of Navy and Marine Corps weapons systems including target detection and tracking, radar, sonar, electronic warfare systems, weapons warheads, fuzing, propulsion, guidance, launching, and fire control systems. (Formerly numbered Naval Science 201.)
NAV S 402. Naval Leadership and Management II (3) II
Prerequisite: Naval Science 201A.
Naval leadership and management with emphasis on military justice administration, naval personnel management, material management, and administration of discipline.

## NAV S 410. Amphibious Operations (3) I

Amphibious warfare, doctrinal origins, and its evolution as an element of naval policy during the twentieth century.

# Nursing 

OFFICE: Hardy Tower 58
TELEPHONE: 619-594-5357
FAX: 619-594-2765
http://nursing.sdsu.edu

Agency Member of the American College of Nurse Midwives and the American Association of Colleges of Nursing. Accredited by the American College of Nurse Midwives, California Board of Registered Nursing, and the Commission on Collegiate Nursing Education.

## Faculty

Emeritus: Broom, Dillon (Salerno), Flagg, Freitas, Gulino, Hines, Laiho, LaMonica, Lantz, Leslie, Lookinland, Loveridge, Moffett, Morris,
Riegel, Shively, Thomas, Verderber, Wahl, Wozniak
Interim Director: Heineken
Associate Directors: Anderson, Saarmann
Professors: Blenner, Heineken, Wahl, Walker
Associate Professors: Anderson, Fitzsimmons, Hadley, Reed, Saarmann
Assistant Professors: Hunter, Lee, Suh, Sweeney
Lecturers: Bass, Bidwell, Blackford, Burns, Coffin-Romig, Esernia, Faron, Fischer, Gaines, Gilbert, Hall, Hanscom, Herold, Jurf,
Katzman, Kohler, Kolhbry, Lischke, Long, McCarthy, Miller, M. A.,
Miller, M. E., Ngo-Nguyen, Ottem, Parr, Preston, Reyno, Samad,
Santarsiero, Walsh

## Offered by the School

Master of Science degree in nursing.
Major in nursing with the B.S. degree in applied arts and sciences.
Registered Nurse B.S., Major in Nursing Program.
School nurse 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 nursing 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, jails, 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.

## Impacted Program

The nursing major is an impacted program. To be admitted to the nursing major, students must meet the following criteria:
a. First-time freshmen must have completed one year of high school college preparatory courses in advanced algebra, biology, and chemistry with laboratory. Transfer students must have completed the same requirements or equivalent college-level courses;
b. Complete with a minimum GPA of 2.50: organic chemistry (1 semester), introductory sociology, introductory psychology, oral communication (Communication 103), general biology, human anatomy with laboratory, and microbiology ( 1 semester with laboratory) (anatomy and microbiology must total 7 semester units with a minimum grade of $B$ - in each course). These courses cannot be taken for credit/no credit ( $\mathrm{Cr} / \mathrm{NC}$ );
c. Show evidence of volunteer and health care experience, bilingual ability, and leadership/achievement in school or community organizations;
d. For fall admission, submit the nursing supplemental application by November 30;
e. For spring admission, submit the nursing supplemental application by August 31.
To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## 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. 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 100, Chemistry 130*, Communication 103, Psychology 101, and Sociology 101.
b. Course grade requirement (B- or better) in each of these required university courses: Biology 210 and 212.
*It is recommended that students with limited chemistry background take Chemistry 100 before Chemistry 130.
2. Minimum Grade Point Average. Applicants must complete the seven prerequisite courses with a minimum overall grade point average of 2.5 .
3. Mathematics and Writing Competency Requirements. Prior to admission to the School of Nursing, all students must satisfy the SDSU mathematics and writing competency requirements.
4. 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 77 points can be earned in meeting the prerequisite courses, 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.
5. 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
6. 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.
7. 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. Students eligible for this option should contact the School of Nursing office for special advising and program planning.
8. Formal Application. Applicants must make an application to the university according to deadlines for impacted programs. In addition, application to the nursing program can be made during the semester that the student is completing prerequisite non-nursing courses (23 units). Application forms may be obtained at the School of Nursing office and on the School of Nursing Web site http://nursing.sdsu.edu. Consult the School of Nursing Web site for the deadline date and any updated information.

## Special Instructions

1. Impacted Program. The nursing major is designated as an impacted program and specific regulations related to admissions are imposed.
2. Full-Time/Part-Time Study. Students are encouraged to enroll in all of the nursing courses scheduled each semester. However part-time enrollment can be arranged by contacting the undergraduate adviser within the school.
3. Liability Insurance and Transportation. Students enrolled in the nursing program are required to provide their own professional liability insurance and transportation to off-campus clinical agencies and for home visits.
4. Honors Program. The honors program is available to students in the senior level who meet the criteria. Four units of honors courses constitute the honors program and will be validated as such on the official transcript. Less than four units completed will not be validated as "honors," but may be credited as a special studies program.
5. Health Insurance. All students are advised to obtain health insurance coverage. Students are responsible for health care cost when services are rendered by a health care agency
6. CPR Certification. Students are required to be certified through either the American Heart Association (health care provider) or American Red Cross (Professional Rescue). Both are Level C. Certification must be maintained throughout the program.
7. Licensure. Students should request consultation with the undergraduate adviser regarding problems of license by endorsement with other states if the R.N. license examination is taken prior to degree completion.
8. Malpractice Insurance. Upon admission to the nursing program, students must purchase professional liability insurance ( $\$ 1$ million to $\$ 3$ million). Students must maintain insurance throughout the program.
9. Upon admission to the nursing program, students are required to have a physical examination and bring proof of the examination and required immunizations to Student Health Services.
10. 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 254 Nurse-Client Relationships................................. 3
NURS 304 Clinical Pharmacology in Nursing Practice........ 3
*\# NURS 308 Adult Health Nursing ........................................ 6
\#NURS 314 Gerontological Nursing ...................................... 3
*\# NURS 416 Psychiatric-Mental Health Nursing .................... 5
NURS 460 Professional Development ................................. 2
Total 30
*Includes management/evaluation of patient care.
\#Includes geriatric nursing.

## General Education Requirements

Students will complete a minimum of 49 units in General Education to include a minimum of nine upper division units. No more than 12 units may be used for General Education credit from any one department or academic unit.
I. Communication and Critical Thinking: 9 units

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

1. Oral Communication: Communication 103 (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)
II. Foundations: 28 units
A. Natural Sciences and Quantitative Reasoning (10 units)
4. Physical Sciences ( 3 units) to be satisfied by: Chemistry 130 (3 units)
5. Life Sciences (3 units) to be satisfied by: Biology 100 (3 units)
6. Laboratory ( 1 unit) to be satisfied by: Biology 210 or Biology 212 or Biology 261
7. Mathematics/Quantitative Reasoning (3 units) You may not use Credit/No Credit grades
B. Social and Behavioral Sciences ( 6 units) to be satisfied by: Psychology 101 (3 units) Sociology 101 (3 units)

## C. Humanities (12 units)

Refer to General Education course offerings in the Graduation Requirements section of the catalog.
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: Courses in this area must not be taken sooner than the semester in which you achieve upper division standing (60 units passed). Upper division courses in the major department may not be used to satisfy General Education. Nine units to include Psychology 351 and six upper division units in Humanities $O R$ three upper division units in Humanities and three upper division units in Social and Behavioral Sciences OR three upper division units in Humanities and three upper division units in Natural Sciences. Three units must be selected from a course of cultural diversity. Refer to General Education course offerings in the Graduation Requirements section of the catalog.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Nursing Major

## With the B.S. Degree in Applied Arts and Sciences (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; Biology 261; three units in statistics should be selected from General Education requirements in Foundations II.A., Mathematics/Quantitative Reasoning; and three units in growth and development or Psychology 230. (27 units)

* Prerequisite courses needed for admission to the nursing program include: general biology, human anatomy with laboratory, microbiology with laboratory, organic chemistry, introductory sociology, introductory psychology, and oral communication (Communication 103).
NOTE: A grade of C (2.0) or better is required in all nursing courses except Nursing 453 which, as an elective is exempt from this requirement. No nursing course may be repeated more than once. A grade of C (2.0) or better or Cr is required in corequisite courses. (Biology 261, Psychology 351, growth and development, and statistics).

Biology 261 is a prerequisite to beginning second semester nursing courses. Child and Family Development 270 or Psychology 230 is required prior to the fourth semester in the nursing program. Psychology 351 is also required prior to the fifth semester in the nursing program.

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.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 48 upper division units in nursing to include Nursing 304, 307, 308, 314, 354, 356, 414, 416, 458, 460; and 452 or 454.

## Registered Nurse - Major in Nursing Program

## With the B.S. Degree in Applied Arts and Sciences

(Major Code: 12031)
A Registered Nurse - Bachelor of Science 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. Students eligible for this option should contact the School of Nursing for special advising and program planning.

Standards for Admission. See Standards of Admission for Professional Program in Nursing. All Standards, except \# 4, apply.

Additional Requirements. The following documents are also required for admission to the RN-BS Program:

1. Copy of current California RN license.
2. Official transcript showing AD Degree or Diploma.
3. Official transcripts from all colleges/universities attended to date.
4. CPR certification - "Healthcare Provider" or "Professional Rescuer" level.
General Education Requirements. See General Education Requirements for nursing major.

Curriculum Plan. A total of 120 units are required for the degree. Transfer credit for 27 or more nursing units is granted. Upon admission to the university and the School of Nursing, students will receive 15 units of upper division credit (credit by examination) in lieu of the following courses: NURS 354, Nursing Care of the Childbearing Family; NURS 356, Parent-Child Nursing; NURS 416, Psychiatric-Mental Health Nursing.

## Program

The following upper division nursing courses are required of all RNBS candidates:

Units
NURS 307 Nursing Research ..... 3
NURS 312 Concepts of Professional Nursing ..... 3
NURS414 Community Health Nursing .....  6
NURS 458 Nursing Management and Leadership .....  5
NURS500 Advanced Health Assessment and Health Promotion. .....  4
NURS452 Basic Concepts in Critical Care Nursing. ..... 5*
AND
NURS 453 Basic EKG Monitoring .....  1
OR
NURS 454 Primary Health Care Nursing .....  5

[^31]
## School Nurse Services Credential

## (Credential Code: 00600)

San Diego State University offers curricula leading to the School Nurse 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, or the School of Nursing Web site.

The School Nurse Services Credential has been approved by the Commission on Teacher Credentialing.

All applicants seeking admission to the School Nurse 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.
4. Have a minimum cumulative grade point average of 3.0 on a 4.0 scale in undergraduate upper division courses.
5. One year experience as a registered nurse within five years of application.
6. Undergraduate community health nursing course.

## Program

The following program elements are required of all school nurse credential candidates: (31 units)

## Units

NURS $500 \begin{gathered}\text { Advanced Health Assessment } \\ \text { and Health Promotion.................................... } 4\end{gathered}$
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
SLHS 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 (NURS)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## NURS 101. Introduction to Nursing (3) Cr/NC I, II

Nursing from a historical, current, and future perspective. Philosophy and science of nursing, nursing specialities, and academic preparation for professional nursing practice. Not required for the major.

## NURS 202. Client Assessment (4) I, II

Two lectures and six hours of laboratory.
Prerequisites: Admission to nursing program and concurrent registration in Nursing 206 and Biology 261.

Determining and measuring variables relevant to assessment of psychosocial and physical functioning.

## NURS 206. Nursing Practice I (5) I, II

Three lectures and six hours of laboratory.
Prerequisites: Admission to nursing program and concurrent registration in Nursing 202 and Biology 261.

Basic nursing skills and integration of diagnosis, planning, and implementation of nursing care. Application of nursing process.

## NURS 252. Nursing Practice II (5) I, II

Three lectures and six hours of laboratory.
Prerequisites: Nursing 202, 206, Biology 261, and 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.

## NURS 254. Nurse-Client Relationships: Cultural and Mental Health Concepts (3) I, II

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.

## UPPER DIVISION COURSES (Intended for Undergraduates)

NURS 304. 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. (Formerly numbered Nursing 456.)

## NURS 307. Nursing Research (3) I, II

Prerequisites: Nursing 304, 308, 314; concurrent registration in Nursing 354 and 356.

Nursing research process. Emphasis on identification of researchable questions and beginning critiquing ability.

## NURS 308. Adult Health Nursing (6) I, II

Three lectures and nine hours of laboratory.
Prerequisites: Nursing 252, 254; concurrent registration in Nursing 304 and 314.

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.

## NURS 312. Concepts in Professional Nursing (3) I, II

Prerequisite: Admission to the RN to BS program.
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.

NURS 314. Gerontological Nursing (3) I, II
Two lectures and three hours of laboratory.
Prerequisites: Nursing 252, 254; concurrent registration in Nursing 304 and 308.

Theory and selected laboratory experience focusing on stressors affecting elderly on health-illness continuum. Gerontologic nursing in a variety of settings.

NURS 350. Women's Health Across the Lifespan (3) [GE] I, II
Prerequisite: Completion of the General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning.

Explores health issues women face across their lives. Focus on developing knowledgeable users of research on causes of and risk factors for health problems. Not applicable to nursing majors.

## NURS 354. Nursing Care of the Childbearing Family (5) I, II

Two lectures and nine hours of laboratory.
Prerequisites: Nursing 304, 308, 314; 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.

NURS 356. Parent-Child Nursing (5) I, II
Two lectures and nine hours of laboratory.
Prerequisites: Nursing 304, 308, 314; 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.

## NURS 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.

NURS 416. Psychiatric-Mental Health Nursing (5) I, II
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.
NURS 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.
NURS 453. Basic EKG Monitoring (1) Cr/NC I, II
Prerequisite recommended: Concurrent registration in Nursing 452.
Basic electrophysiological and interpretive concepts necessary for identification and management of supraventricular and ventricular rhythms.

## NURS 454. Primary Health Care Nursing (5) I, II

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.

## NURS 458. Nursing Management and Leadership (5) I, II

Three lectures and six hours of laboratory.
Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 460 and Nursing 452 or 454.

Theories and functions of nursing management and leadership within health care system. Economics of health care.
NURS 460. Professional Development (2) I, II
Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 458 and Nursing 452 or 454.

Preparation for professional role in nursing. Emphasis in socioeconomic, political, and legal aspects of nursing. Discussions of advocacy, ethics, and current issues.
NURS 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.

## NURS 498. Cooperative Education Supervised Practice (2-6) Cr/NC I, II, S

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.

NURS 499. Special Study (1-3) I, II
Prerequisites: Nursing 308 and consent of instructor.
Individual study. Maximum credit six units.

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

## NURS 500. Advanced Health Assessment and Health Promotion (4) I

Three lectures and three hours of laboratory.
Prerequisite: Consent of graduate or credential adviser.
Physical and psychosocial assessment techniques, health promotion strategies for select populations.

## NURS 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.


## OFFICE: Exercise and Nutritional Sciences 351

TELEPHONE: 619-594-5541

Didactic Program in Dietetics is accredited by the Commission on Accreditation for Dietetics Education - American Dietetic Association.

## Faculty

Emeritus: Boggs, Cooke, Dickerson, Gunning, Josephson, Stout
Chair: Harris
Professor: Spindler
Associate Professors: Beshgetoor, Kern
Assistant Professor: Misra
Lecturers: Nash, Rupp

## Offered by the Department of Exercise and Nutritional Sciences

Master of Science degree in nutritional sciences.
Master of Science degree in nutritional science and Master of Science degree in exercise physiology (concurrent program).
Major in foods and nutrition with the B.S. degree in applied arts and sciences.

## The Major

The major in foods and nutrition offers a comprehensive multidisciplinary study of the nature and quality of the food supply and the nutritional requirements for health in people. Students take core sequences of coursework in the areas of nutrition, food science, and food management founded on prerequisite courses in chemistry, biology, biochemistry, physiology, accounting, management, and the behavioral and social sciences. Course emphasis in the major is placed upon the composition, properties, quality, and safety of foods and food ingredients; the relationships of metabolism and utilization of nutrients in food by the human body to health and disease states; influences of exercise and fitness; the physiological basis for diet therapy; nutrition problems in the community; and organization, management and operation of food service facilities.

This major is planned for students interested in qualifying professionally for diverse careers in the fields of dietetics, food service management, and food industries. The accredited didactic program in foods and nutrition allows students eligibility for membership in the American Dietetic Association (ADA) and for postbaccalaureate dietetic internships 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.

## Impacted Program

The foods and nutrition major is an impacted program. To be admitted to the foods and nutrition major, students must meet the following criteria:
a. Complete the following courses (or their equivalents): Nutrition 101, 203, 204, 205; Accountancy 201; Biology 100, 100L, 210; Chemistry 100, 130, 160; Economics 201 (or Statistics 250); Psychology 101; Sociology 101. A grade of C or higher must be earned in Nutrition 101, Chemistry 100 and 130. These courses cannot be taken for credit/no credit (Cr/NC);
b. Have a cumulative GPA of 2.40 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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 101, 203, 204, 205; Accountancy 201; Biology 100, 100L, 210; Chemistry 100, 130, 160; Economics 201 (or Statistics 250); Psychology 101; Sociology 101. (42 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$. A grade of C or higher must be earned in Nutrition 101, Chemistry 100 and 130.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 40 upper division units to include Nutrition 301, 302, 302L, 303, 303L, 304, 404, 405, 406; Biology 336; Exercise and Nutritional Sciences 304, 304L; the remaining nine units selected with the approval of adviser from Nutrition 309, 388, 407, 488, 499, 510; Biology 321; Chemistry 361, 567; Community Health Education 470; and Management 350 and 352 or Psychology 319. Biology 336 will also satisfy three units of the General Education requirement in Explorations IV.A. Natural Sciences.

## Courses (nUTR)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

NUTR 101. Professional Issues: Foods and Nutrition (1) I, II
Prerequisite: Rhetoric and Writing Studies 100.
Philosophical basis of foods and nutrition and relations of its specialties to the field as a whole.

NUTR 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.

## NUTR 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.

## NUTR 203. Cultural Aspects of Food and Nutrition (3)

Prerequisite: Completion of a General Education course in 1.) Communication and Critical Thinking, 2.) Composition, or 3.) Intermediate Composition and Critical Thinking.

Food habits and health beliefs about foods and nutrition. Regional and ethnic influences.

NUTR 204. Fundamentals of Nutrition (3) I, II
Prerequisites: Biology 100, 100L; Chemistry 100 and 130 (or concurrent registration in Chemistry 231). Proof of completion of prerequisites required: Copy of transcript.

Nutrition as applied to the stages of the normal life cycle.

## NUTR 205. Food Preparation (5) I, II

Three lectures and six hours of laboratory.
Prerequisites: Grade of C or better in Nutrition 101 and Chemistry 100 and 130 (or concurrent registration in Chemistry 231). Proof of completion of prerequisites required: Copy of transcript.

Composition, preparation, preservation, sensory and consumer evaluation of foods.

## NUTR 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)

## NUTR 301. Science of Foods (3) I, II

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.

## NUTR 302. Advanced Nutrition (3) I, II

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.

## NUTR 302L. Advanced Nutrition Laboratory (2) I, II

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.
NUTR 303. Quantity Food Production (2) I, II
Prerequisites: Nutrition 205 or Information and Decision Systems 302. Concurrent registration in Nutrition 303L.

Quantity food production service delivery systems. Skills for food safety, recipe standardization, menu planning, purchasing, production operations, and quality standards. Intended for majors in foods and nutrition and hospitality and tourism management.

## NUTR 303L. Quantity Food Production (1

Three hours of laboratory.
Prerequisites: Nutrition 205 or Information and Decision Systems 302. Concurrent registration in Nutrition 303.

Practical applications of quantity food production systems and methods with emphasis on food safety (HACCP), menu planning, purchasing, facilities and equipment, and food quality. Intended for majors in foods and nutrition and hospitality and tourism management.
NUTR 304. Nutrition Throughout the Life Span (3)
Prerequisite: Nutrition 204.
Factors affecting nutrient needs and ways to meet nutrient requirements across the life span. Not open to students with credit in Nutrition 208.

## NUTR 309. Eating Disorders and Weight Control (2) Cr/NC I, II

Prerequisite: Upper division standing in foods and nutrition or kinesiology 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.

## NUTR 311. Nutrition for Health and Fitness (3) I, II

Prerequisites: Biology 100, 212, 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.

## NUTR 388. Dietetic Practice I (1)

Prerequisites: Admission to SDSU Didactic Program in Dietetics, Nutrition 204, 205, and consent of instructor.

Practical experience in food service and medical nutritional therapy for future dietitians.

## NUTR 398. Supervised Field Experience (1-3)

Three hours per week for 15 weeks per unit of course credit.
Prerequisite: Upper division standing required; limited to foods and nutrition majors.

Supervised practical experience in areas of food and nutrition. Maximum credit six units.

## NUTR 404. Food Systems Management (3) I, II

Prerequisites: Nutrition 303 and 303L.
Managerial functions in food service systems.

## NUTR 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.

## NUTR 406. Diet Therapy (4) I, II

Prerequisites: Nutrition 302 and 302L. Proof of completion of prerequisites required: Copy of transcript.

Dietary management of pathological and debilitating diseases.

## NUTR 407. Medical Nutrition Therapy Laboratory <br> (1)

Three hours of laboratory.
Prerequisites: Admission to SDSU Didactic Program in Dietetics, Nutrition 302, 302L, and concurrent registration in Nutrition 406.

Required for Didactic Program in Dietetics competencies established by the American Dietetic Association. Builds multi-level skills for dietetic practice to assess nutritional status and to develop care plans for patients.

## NUTR 488. Dietetic Practice II (1)

Prerequisites: Admission to SDSU Didactic Program in Dietetics, Nutrition 302, 302L, 303, 303L, 388, and consent of instructor.

Advanced practical experience in food service and medical nutrition therapy for future dietitians.

## NUTR 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.

NUTR 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)

## NUTR 510. Nutrition and Community Health <br> (3) I, II

Two lectures and three hours of activity.
Prerequisites: Grade of C or better in Nutrition 302, 302L, Nutrition 203, 304, and consent of instructor.

Nutritional problems in the community with consideration of their resolution. Field placement experience required.

## NUTR 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<br>Department of Geological Sciences

## OFFICE: Geology/Mathematics/Computer Science 237 <br> TELEPHONE: 619-594-5586

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 and Biochemistry, Economics, Civil and Environmental Engineering, Geography, Geological Sciences, Mechanical Engineering, 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 San Diego Bay, and a boat operations program.

Courses in general oceanography are offered by faculty from the Departments of Biology and Geological Sciences. 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. 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 one of the departments listed above or the Coastal and Marine Institute. (See section of this catalog on Colleges, College of Sciences Research Centers and Institutes.)

## Oceanography Minor

Offered for undergraduate science students by the Department of Geological Sciences, the minor in oceanography consists of a minimum of 16 upper division units to include Biology 515 or 517; Geological Sciences 540,545 ; and six additional units selected with the approval of the adviser. Additional prerequisite courses are required.

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 in residence at San Diego State University.

## Courses (ocean)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

OCEAN 305. Scientific Scuba Diving
Two lectures and three hours of laboratory.
Prerequisites: Upper division standing. Swimming competency evaluation, physical examination approval for scuba diving, waiver for scuba diving.

Entry level scientific diver training and certification course. Theory and practical diving skills to include diving physiology, hyperbaric conditions, medical hazards, proper selection, care and operation of diving equipment, marine environment, emergency procedures, scientific diving techniques and regulations. Not open to students with credit in Oceanography 306 or Exercise and Nutritional Sciences 320, 323, 324.

OCEAN 306. Scientific Scuba Diving for Certified Divers (3)
Two lectures and three hours of laboratory.
Prerequisites: Oceanography 305 and Advanced or Scientific Diving Certification, diving skills proficiency evaluation, acceptable openwater diving equipment, physical examination approval for scuba diving, waiver for scuba diving.

Scientific diving operations, techniques and procedures; dive planning and lead diver responsibilities; underwater work, mapping, search and salvage, navigation, deep, night and small boat diving; emergency procedures and rescue. Physics, physiology, medicine, decompression theory, oceanography, marine life and marine environment. Master Diver Certification. Not open to students with credit in Exercise and Nutritional Sciences 324.

## OCEAN 320. The Oceans (3) [GE] I, II

Prerequisites: One introductory college course in a life science and one in a physical science, and completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

The ocean system, its influence on life, climate, the earth, and humankind.
OCEAN 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.

For additional courses in Marine Studies see:
Biology 515. Marine Invertebrate Biology
Biology 517. Marine Ecology
Biology 520. Ichthyology
Economics 454. Economics of the Ocean
Geography 504. Coastal and Submarine Physiography
Geography 588. Intermediate Remote Sensing of Environment Geological Sciences 540. Marine Geology
Geological Sciences 545. Descriptive Physical Oceanography

## LOWER DIVISION COURSE

## OCEAN 100. The Ocean Planet (4) [GE]

Three lectures and three hours of laboratory.
Physical, chemical, geological, and biological foundations of the global ocean system, with emphasis on science as a process and its role in environmental issues from global climate change to local pollution.

# Persian 

## In the Department of Linguistics and Oriental Languages <br> In the College of Arts and Letters

## OFFICE: Business Administration 327

TELEPHONE: 619-594-5268
FAX: 619-594-4877
http://www-rohan.sdsu.edu/dept/linguist/index.html

## Faculty

Chair: Kaplan

## Offered by the Department of Linguistics and Oriental Languages

Courses in Persian.
Major or minor work in Persian is not offered.

## 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 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.

## Courses (PERS)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

No credit will be given for Persian 101 and 102 taken out of sequence.

## LOWER DIVISION COURSES

Native speakers of Persian will not receive credit for taking lower division courses in Persian except with advance approval from the department.

## PERS 101. Elementary Modern Persian I (4) [GE]

Introduction to modern Persian and Persian writing system. Development of speaking, listening, and reading skills using multimedia materials. Vocabulary for everyday topics and develop culturally appropriate discourse strategies for everyday situations. Not open to students who have completed three years of high school Persian unless the third course was completed five or more years ago. Not open to students with credit in Persian 102.

## PERS 102. Elementary Modern Persian II (4) [GE]

Prerequisite: Persian 101 or two years of high school Persian.
Continuation of Persian 101. Development of speaking, listening, and reading skills using multimedia materials. Vocabulary for everyday topics and develop culturally appropriate discourse strategies for everyday situations. Not open to students who have completed four years of high school Persian unless the fourth course was completed five or more years ago.

## PERS 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.

## Philosophy

## In the College of Arts and Letters

## Faculty

Emeritus: Feenberg, Friedman, Nelson, O'Reilly, Rosenstein, Shields, Snyder, Troxell, Warren, Weissman

## Chair: Barbone

Professors: Corlett, Weber, Weston
Associate Professors: Barbone, Chaffin, Francescotti, Moellendorf, Wheeler
Assistant Professors: Atterton, Wawrytko
Lecturers: Anderson, Freeman, Meighoo, Neuner, Reyes, Schlesinger

## 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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 to include Philosophy 110 or 120 . Philosophy 120 is preferred as preparation for Philosophy 521.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units in philosophy to include Philosophy 521; at least nine units selected from Philosophy $411,412,413,414$; and no more than six units of 300 -level courses. During the last semester, all seniors shall submit to the department a portfolio of their scholarly work in philosophy.

## Philosophy Minor

The minor in philosophy consists of 24 units in philosophy: Six lower division units to include Philosophy 110 or 120, and 18 upper division units to include no more than six units of 300 -level 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 in residence at San Diego State University.

## Courses (PHIL)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

PHIL 101. Introduction to Philosophy: Ethics (3) [GE] I, II
Philosophical inquiry, with emphasis on problems of moral value. Students are encouraged to think independently and formulate their own tentative conclusions concerning a variety of vital contemporary issues facing individuals and society.

## PHIL 102. Introduction to Philosophy: Knowledge and Reality (3) [GE] 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.
PHIL 103. Historical Introduction to Philosophy (3) [GE]
Introduction to philosophical inquiry through study of the works of major philosophers in their historical contexts.
PHIL 110. Critical Thinking and Composition (3) [GE] I, II
Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements and Africana Studies 120 or Chicana or Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101. Proof of completion of prerequisites required: Test scores or verification of exemption; grade report or copy of transcript.

Introduction to critical thinking and writing. Evaluation and development of correct reasoning and effective style and organization in argumentative writing. Correct deductive and inductive reasoning. Fallacies. Critical appraisal of evidence. Construction of rebuttals and counter-arguments.
PHIL 120. Introduction to Logic (3) [GE] I, II
Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.

Introduction to deductive and inductive logic. Logic and language. Analysis of fallacies. Uses of logic in science and in daily life.
PHIL 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)

Students taking 300-level courses for the major will be required to do extra work to be arranged with the instructor.
PHIL 305. Classics of Western Philosophy (3) [GE]
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.

## PHIL 310. Philosophy and Human Nature (3) [GE]

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.

## PHIL 329. Social Ethics (3) [GE]

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.

## PHIL 330. Medical Ethics (3) [GE]

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.

## PHIL 332. Environmental Ethics (3) [GE]

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.

## PHIL 333. Philosophy of Technology (3) [GE]

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.

## PHIL 334. Philosophy and Literature (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Study of literature of philosophical significance and of philosophical problems of literature.

## PHIL 351. Chinese Philosophy (3) [GE]

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 preHan China.
PHIL 411. Ancient Western Philosophy (3)
Prerequisite: Three units in philosophy.
Ancient western philosophy through the third century A.D.
PHIL 412. Medieval Philosophy (3)
Prerequisite: Three units in philosophy.
European, Arabic, and Jewish philosophies from the fourth to the fifteenth centuries.

## PHIL 413. Renaissance and Early Modern Philosophy (3)

Prerequisite: Three units in philosophy.
European philosophy from the sixteenth to eighteenth centuries.
PHIL 414. Nineteenth Century European Philosophy (3)
Prerequisite: Three units in philosophy.
European philosophy in the nineteenth century.

## PHIL 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.
PHIL 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)

PHIL 506. Twentieth Century Continental Philosophy
Prerequisite: Six upper division units in philosophy.
Major figures and movements in European philosophy from Husserl to the present.
PHIL 507. Twentieth Century Anglo-American Philosophy (3)
Prerequisite: Six upper division units in philosophy.
Major movements, issues, or figures of twentieth century AngloAmerican philosophy. Course may be repeated with new content. Maximum credit six units.

## PHIL 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.

## PHIL 510. Philosophy of Law (3)

Prerequisites: Three units from Philosophy 101, 102, or 103; and three units from philosophy or political science.

Philosophical and ethical investigation into nature of law, rights, liberty, responsibility, and punishment.
PHIL 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.
PHIL 521. Deductive Logic (3) II
Prerequisite: Philosophy 110 or 120. Recommended: 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.
PHIL 523. Theory of Knowledge (3)
Prerequisite: Six units in philosophy.
Philosophical analysis of knowledge, including conceptions of belief, justification, and truth.

## PHIL 525. Metaphysics (3)

Prerequisite: Six units in philosophy.
Prominent theories of reality, e.g., realism and nominalism, materialism and idealism, teleology and determinism.

## PHIL 528. Theory of Ethics (3)

Prerequisite: Six units in philosophy.
Advanced topics in ethical theory, including normative ethics and meta-ethics. May include historical or contemporary readings or both. Issues may include content of moral value, nature of moral judgment, and accounts of virtue and right action.

## PHIL 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.
PHIL 532. Philosophy of History (3)
Prerequisite: Six units in philosophy.
Accounts of historical development, historical change, and nature of historical explanation.
PHIL 535. Philosophy of Religion (3)
Prerequisite: Six units in philosophy.
Philosophical examination of issues raised by the religious impulse in man.

## PHIL 536. Philosophy of Mind (3)

Prerequisite: Three upper division units in philosophy.
Prominent theories and arguments regarding relation between mind and body. Varieties of dualism considered along with major materialist rivals.

## PHIL 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.

## PHIL 541. History of Aesthetics (3)

Prerequisite: Philosophy 101, 102 or 103.
Major documents in the history of aesthetics.
PHIL 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.

## PHIL 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.

## PHIL 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.
PHIL 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 nine 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.

## PHIL 599. Special Study (1-3)

Prerequisite: Upper division or graduate standing and consent of instructor.

Directed individual study in philosophy on a theme or topic chosen in consultation with the instructor. Maximum credit six units. Maximum combined credit six units of Philosophy 599 and 798 applicable to the M.A. degree in Philosophy.

GRADUATE COURSES
Refer to the Graduate Bulletin.

## OFFICE: Physics 131

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## Faculty

Emeritus: Burnett, Cottrell, Day, Feher, Lilly, Nichols, Piserchio, Rehfuss, Shackelford, Shore, Smith, Teasdale, Templin, Wallace, Wolter
Chair: Oseroff
Professors: Davis, Goldberg, Johnson, Morris, Oseroff, Papin, Roeder, S., Sweedler, Torikachvili
Associate Professors: Baljon, Johnson, Weber
Assistant Professors: Anderson, Bromley
Lecturers: DiMauro, Ferguson, Nelson, Roeder, P.
Adjunct: Bendall, Jani, 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 physics with the B.A. degree in liberal arts and sciences.
Major in physics with the B.S. degree in applied arts and sciences.
Major in chemical physics with the B.S. degree in applied arts and sciences.
Teaching major in physical science for the single subject teaching credential in science/physical science.
Minor in physics.

## The Major

The study of physics is considered the foundation 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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 Advising and Evaluations. No more than 48 units in physics courses can apply to the degree.

A minor is not required with this major.
Preparation for the Major. Physics 195, 195L, 196, 196L, 197, 197L; Chemistry 200; Mathematics 150, 151, 252. (29 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 31 upper division units to include Physics 311, 350, 354, 357, 360, 400A-400B, 410; Mathematics 342A, 342B.

## Physics Major

## With the B.S. Degree in Applied Arts and Sciences <br> \section*{(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 Advising and Evaluations.

A minor is not required with this major.

## Basic Requirements for all Students

Preparation for the Major. Physics 195, 195L, 196, 196L, 197, 197L; Chemistry 200; Mathematics 150, 151, 252. (29 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 45 upper division units to include Physics 311, 317, 350, 354, 357, 360, 400A-400B, 410, 498A, 498B; Mathematics 342A, 342B. In addition, the student must complete the requirements for either one of the following areas:
(a) General Physics

Nine units of elective coursework in physics or related areas. Electives must be approved by the Physics department undergraduate adviser.

## (b) Modern Optics

Required: Physics 406, 552, 553.
Recommended: Physics 516, 532, 554.

## 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 Advising and Evaluations.

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 (43 units)

Recommended: A course in computer programming.
Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 39 upper division units to include Physics 311, 350, 400A, 410; Chemistry 410A-410B, 417, 550; Mathematics 342A, 342B; six units selected from Physics 357, 360, 400B; Chemistry 431, 457, 510, 515; Physics 538 or Chemistry 538; and Research Project: Chemistry 497 (3 units) or Chemistry 498 (3 units) or Physics 498A and 498B (3 units).

## Physical Science Major

In preparation for the Single Subject Teaching Credential in Science/Physical Science
With the B.A. Degree in Applied Arts and Sciences
(Major Code: 19011)

> The physical science major in preparation for the single subject teaching credential in science/physical science has been submitted to the California Commission on Teacher Credentialing for approval.
> Contact the natural science program coordinator for additional information.

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of the catalog on "Graduation Requirements." Candidates may complete one of their two American Institutions courses at the upper division level or satisfy the California state and local government portion of American Institutions by passing the California Government examination available through the Student Testing, Assessment and Research Office.

A minor is not required for this major.
Preparation for the Major. Africana Studies 140 or Chicana and Chicano Studies 111A or Communication 103; Astronomy 109, 201; Biology 201A, 201B; Chemistry 200, 201; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, 197L; Teacher Education 211 (1 unit). (50 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 31 upper division units to include Geological Sciences 412; Mathematics 342A; Natural Science 315; Physics 311, 317, 350, 354, 357, 360, 400A.

## Additional Requirements for Subject Matter Preparation Certification

Satisfactory Grades. At most one course with a C- or lower among the courses listed under Preparation for the Major, and at most one course with a C- or lower among the courses listed under the Major. If a course is repeated, the highest grade will count.

Formative Assessment. Completion of a satisfactory, preliminary portfolio two semesters prior to graduation. Contact the subject matter preparation adviser for information.

Summative Assessment. Completion of a satisfactory, final portfolio, and a positive recommendation from a committee consisting of the instructor of Physics 357, the Department of Physics chair, and the subject matter preparation program adviser.

## Physics Minor

The following courses are prerequisites to the physics minor and do not count toward the 15 units required for the minor. Physics 195, 195L, 196, 196L, 197, 197L; Mathematics 150, 151, 252.

The minor in physics consists of a minimum of 15 units to include Physics 350, 354, 360, 400A; Mathematics 342A.

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 in residence at San Diego State University.

## Courses (PHYS)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

Maximum credit 12 units for any combination of Physics 107, 170, 180A-180B, 182A-182B, 195, 195L, 196, 196L, 197, 197 L.

## PHYS 107. Introductory Physics with Laboratory (4) [GE] I, II

Three lectures and three hours of laboratory.
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 or 195.

## PHYS 149. Special Study (1-2) Cr/NC I, II

Prerequisite: Consent of supervising instructor.
Individual study and laboratory work in area of student's major interest. Students will be assigned a member of the staff who will supervise their work. Maximum credit two units.

## PHYS 170. Preparation for Physics (3)

Prerequisite: Two years of high school algebra.
Elemental principles of physics approached from problem-solving and critical thinking perspectives necessary for success in Physics 180A and Physics 195. Not open to students with credit in Physics 107, 180A, or 195.

PHYS 180A-180B. Fundamentals of Physics (3-3) I, II
Prerequisite: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA. Physics 180A is prerequisite to 180B.

Recommended: For Physics 180A, concurrent registration in Physics 182A; for Physics 180B, concurrent registration in Physics 182B.

Semester I: Mechanics, wave motion, sound, and fluids. Semester II: Electricity, magnetism, optics, and modern physics. Presented in a two-semester algebra/trigonometry based sequence. Physics 180A not open to students with credit in Physics 195. Physics 180B not open to students with credit in Physics 196.

PHYS 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.

## PHYS 195. Principles of Physics (3) I, II

Prerequisites: High school physics or Physics 107 or 170. Mathematics 150 .

Fundamental principles of physics in areas of mechanics and oscillatory motion. Designed for students requiring calculus-based physics.

## PHYS 195L. Principles of Physics Laboratory (1) I, II

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.

## PHYS 196. Principles of Physics (3) I, II

Prerequisites: Physics 195 and Mathematics 151.
Fundamental principles of physics in areas of electricity and magnetism. Designed for students requiring calculus-based physics.

## PHYS 196L. Principles of Physics Laboratory (1) I, II

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.

## $\begin{array}{llll}\text { PHYS 197. Principles of Physics } & \text { (3) I, II }\end{array}$

Prerequisite: Physics 196.
Fundamental principles of physics in areas of wave motion, sound, electromagnetic waves, optics, relativity, and modern physics. Designed for students requiring calculus-based physics.

## PHYS 197L. Principles of Physics Laboratory (1) I,II

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Physics 197.
Experiments in optics, lasers, holography, and nuclear counting.
PHYS 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 <br> (Intended for Undergraduates)

## PHYS 301. Energy and the Environment (3) [GE]

Prerequisite: Completion of the General Education requirements in Communication and Critical Thinking and Foundations II.A., Natural Sciences and Quantitative Reasoning.

Fundamental physical concepts underlying energy, its conversion, and impact on the environment.

## PHYS 311. Electronics for Scientists (4)

Three lectures and three hours of laboratory.
Prerequisites: Physics 180B and 182B, or 196 and 196L.
AC and DC circuits, diodes, transistors, conventional and operational amplifiers, analog to digital conversion, pulse and digital electronics. Introduce science majors to modern electronic devices and their utilization in scientific instrumentation.

## PHYS 317. Introduction to Computational Physics <br> (2)

Six hours of laboratory.
Prerequisites: Physics 197 and Mathematics 342A.
Numerical methods applied to a variety of physics topics. Use of computers to solve and plot problems involving differential equations, matrices, root finding, numerical integration.

## PHYS 333. Physics Perspectives (3)

Prerequisite: Physics 180B or 197.
Theoretical physics emphasizing basic themes cutting across separate traditional subject divisions. Visualize three-dimensional vector fields, forces and torques. Balance between derivations, conceptual understanding, numerical problem-solving, estimations, and proportional reasoning.

## PHYS 350. Classical Mechanics (3)

Prerequisites: Physics 195 with a minimum grade of C and Physics 197. Credit or concurrent registration in Mathematics 342A.

Newtonian mechanics, gravitation, small oscillations, collisions, motion of rigid bodies, Lagrangian mechanics.

## PHYS 354. Modern Physics (3)

Prerequisites: Physics 197 with a minimum grade of C. Credit or concurrent registration in Mathematics 342A.

Special theory of relativity. Particle properties of electromagnetic radiation, and wave properties of particles. Introduction to quantum theory with applications to atomic structure.

## PHYS 357. Advanced Physical Measurements

One lecture and six hours of laboratory.
Prerequisites: Physics 311, 354 and Chemistry 200.
Stresses both laboratory experiments and techniques of data and error analysis. Experiments are taken from major areas of physics.

## PHYS 360. Thermal Physics (3)

Prerequisites: Physics 350, Mathematics 342A, Physics 354 or Chemistry 410A.

Classical thermodynamics and statistical mechanics. Applications of equilibrium thermodynamics. 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.

PHYS 400A-400B. Classical Electromagnetism (3-3)
Prerequisites for Physics 400A: Physics 196 with a minimum grade of C; Physics 197 and Mathematics 342A. Physics 400A is prerequisite to Physics 400B.

Electrostatics, magnetostatics, electromagnetic induction, Maxwell's equations, radiation and wave propagation.

## PHYS 406. Optics (3)

Prerequisites: Physics 197, 197L, Mathematics 342B.
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.
PHYS 410. Quantum Mechanics (3)
Prerequisites: Physics 350, Mathematics 342B, Physics 354 or Chemistry 410A.

Mathematical and physical foundations of quantum theory in terms of wave and matrix mechanics. Applications to properties of atoms and solids.

## PHYS 496. Selected Topics in Physics

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.

## PHYS 498A. Senior Research (1) Cr/NC

One discussion period and two additional hours per week to be arranged

Prerequisites: Physics 357 and consent of instructor.
Selection and design of individual research project. Oral and written progress reports.

## PHYS 498B. Senior Research (2)

Two discussion periods and four additional hours per week to be arranged.

Prerequisite: Physics 498A.
Laboratory work, progress reports, oral and written final reports.
PHYS 499. Special Study (1-3)
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)

## PHYS 516. Theory of Scientific Instrumentation (3)

Prerequisites: Physics 311, Mathematics 342B.
Fourier analysis with applications to scientific instrumentation, spectroscopy, and image processing; Z transforms and digital filtering; detection systems and their optimization of the signal-to-noise ratio.

## PHYS 532. Condensed Matter Physics (3)

Prerequisite: Credit or concurrent registration in Physics 410.
Elastic, thermal, electric, magnetic and optical properties of solids. Introduction to the energy band theory of solids, with applications to semiconductors and metals.

## PHYS 533. Experimental Techniques in Condensed Matter Physics (3)

One lecture and six hours of laboratory.
Prerequisites: Physics 357 and 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.

PHYS 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.
PHYS 538. Polymer Science (3)
(Same course as Chemistry 538.)
Prerequisites: Chemistry 200 or 202; and Chemistry 410B or Physics 360 or Mechanical Engineering 350 or 352.

Structure, synthesis, physical properties, and utilities of polymers.
PHYS 552. Modern Optics and Lasers (3)
Prerequisites: Physics 406 with minimum grade of $C$; credit or concurrent registration in Physics 400B.

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.

## PHYS 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.

## PHYS 554. Colloquium in Optics Research (1) Cr/NC

Prerequisites: Concurrent registration in Physics 498A or 498B or 797 and consent of instructor.

Student and faculty research project presentations. Maximum credit three units.

## PHYS 560. Radiological Physics and Dosimetry (3)

Prerequisite: Credit or concurrent registration in Physics 354.
lonizing radiation fields, interactions of radiation with matter, cavity theory, external radiation dosimetry.
PHYS 561. Nuclear Instrumentation (3)
One lecture and six hours of laboratory.
Prerequisites: Physics 311 and 560.
Radiation detection, measurement, and spectroscopy. Ionization chambers, GM and proportional counters, scintillation and semiconductor detectors, and thermoluminescent dosimetry.

## PHYS 564. Nuclear Physics <br> (3)

Prerequisite: Credit or concurrent registration in Physics 410.
Nuclear and elementary particle phenomena including nuclear structure, decay, and radioactivity. Nuclear reactions and devices. Experimental methods and applications.
PHYS 570. Relativity (3)
Prerequisites: Physics 354 and 400B.
Relative coordinates, Lorentz transformation, covariant formation of the laws of physics, applications of special relativity, introduction to curved space time, cosmology.

## PHYS 580. Computational Physics (3)

Prerequisites: Physics 354; Computer Engineering 160 or Computer Science 106; and credit or concurrent registration in Physics 400A.

Computer programming for numerical solution of problems in classical mechanics, electromagnetism, optics, and quantum mechanics. Use of Fortran and C programming languages and the UNIX operating system. Incorporation of standard subroutines for linear algebra and differential equations into student written programs.

## PHYS 596. Special Topics in Physics (1-4)

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 

OFFICE: Business Administration 248
TELEPHONE: 619-594-5155
FAX: 619-594-1183

Accredited by the California Commission on Teacher Credentialing.

## Faculty

Emeritus: Kuhlman, Nuñez, Pacheco
Interim Chair: Espinosa
Professors: Espinosa, Ochoa
Associate Professors: Cadiero-Kaplan, Jones, Rodriguez, A., Rodriguez, J.
Assistant Professors: Alfaro, Billings
Lecturers: Sanz, Sparaco

## Offered by the Department

Master of Arts degree in education.
Multiple subject bilingual cross-cultural language and academic development credential (B/CLAD) emphasis: Spanish.
Single subject bilingual cross-cultural language and academic development credential (B/CLAD) emphasis: Spanish.
B/CLAD credential in Mexico.
Bilingual cross-cultural language and academic development (BCLAD) certificate.
Cross-cultural language and academic development (CLAD) certificate.

## The Major

The Policy Studies Department offers programs leading toward the Bilingual Cross-Cultural Language and Academic Development (B/ CLAD) credential for single and multiple subject (secondary and elementary), as well as the more advanced CLAD and BCLAD Certificates.

With the passage of Proposition 227, requiring all students in public schools be taught in English unless a school has received a waiver, the Policy Studies Department and the College of Education remains committed to the training of teachers for the B/CLAD credentials. The B/ CLAD credentials meet all of the requirements of the CLAD credential. The B/CLAD credential remains as the most desirable credential in California. Furthermore, the university is committed with developing leaders in cultural, economic, educational, scientific, social, and technical fields, as well as addressing the linguistic diversity of school communities. 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.

## Multiple Subject Bilingual Cross-Cultural Language and Academic Development Credential (B/CLAD) Emphasis: Spanish

## (Credential Code: 00200)

The Multiple Subject Bilingual Cross-Cultural Language and Academic Development credential (B/CLAD) Spanish emphasis is available to students interested in teaching in a bilingual credential 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.

In the College of Education

Candidates who will pursue this credential need to specify "Multiple Subject BCLAD/Spanish emphasis" in the application for graduate admission to SDSU (Code: 00200). Students applying for admission should electronically submit the university application available at http:// www.csumentor.edu along with the $\$ 55$ application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Policy Studies in Language and Cross-Cultural Education Department.

## Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416
(1) Official transcripts (in sealed envelopes) from all postsecondary institutions attended;
Note:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
- Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
(2) GRE scores (http://www.ets.org, SDSU institution code 4682);
(3) TOEFL score, if medium of instruction was in a language other than English (http://www.ets.org, SDSU institution code 4682).


## Policy Studies in Language and

 Cross-Cultural Education DepartmentThe following materials should be mailed or delivered to: Policy Studies in Language and Cross-Cultural Education Department San Diego State University San Diego, CA 92182-1152
(1) Complete department application (available at the department Web site);
(2) Copy of scores for CBEST/Spanish Proficiency Examination/ CSET;
(3) TB test results;
(4) Three letters of recommendation, one of which must be from an elementary teacher if multiple subject or from a secondary teacher if single subject;
(5) Verification of early field experience ( 60 hours for multiple subject and 45 hours for single subject);
(6) Certificate of clearance (live scan);
(7) CPR that includes infant/child/adult;
(8) A written three pages (1-1/2 each) of essays on goals and philosophy in education and an autobiography;
(9) $\$ 25$ application processing fee;
(10) Entrance interview will be conducted by one or more PLC faculty members.

## Standards for Admission

1. CBEST. Students must pass the California Basic Educational Skills Test prior to admission to the B/CLAD credential program. This examination is required by the Commission on Teacher Credentialing. Booklets containing registration forms and test information are
available from the Student Testing, Assessment, and Research Office in SS-2549, 619-594-5216. Call the PLC Department for additional information on CBEST.
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. To be admitted to the BCLAD multiple subject credential program, a candidate shall have achieved a passing score on the California Subject Examination for Teachers (CSET) that is required for the credential sought. Registration information and materials for the CSET are available in BA-259.
3. Prerequisite Courses. The following courses must be completed with a grade of "C" or better prior to admission to the program, but may be in progress at the time of application or taken in the term immediately prior to the program start date.
Liberal Studies Majors.

| PLC 515 | 3 units |
| :---: | :---: |
| ED 451 | 3 units |
| HHS 280 | 1 unit |
| SPED 450 | 2 units |

Non-Liberal Studies Majors (must take the above and below prerequisites).

| ENS 241A, 241B | 2 units |
| :---: | :---: |
| LING 420* or 520 | 3 units |
| LING 452* | 3 units |
| MATH 210** or 211 or 313 | 3 units |
| Art 100 or 101 or 387; Musi 120 or 310 or | 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 Policy Studies in Language and Cross-Cultural Education Department (PLC), BA-248, Candidates are required to submit two sets of official transcripts from all colleges and universities attended and unofficial SDSU transcripts for GPA calculations.
5. Letter of Recommendation. Two professional references and one letter 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 HMOs, or public health agencies.
7. Early Field Experience. Applicants must provide evidence of a minimum of 60 hours of experience with students in typical elementary classroom settings within the last three years. Evidence must be documented.
8. Oral English and Written Statement of Professional Goals and Philosophy. Have an interview with the admissions and retention committee of the PLC Department.
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. Candidates must submit the application directly to the California Commission on Teacher Credentialing. A copy of the application must be provided to the PLC Department.
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 California Commission on Teacher Credentialing. Make appointment in BA-248, telephone 619-594-5155.
11. Language and Culture Examination. All candidates must take and meet the minimum PLC Department Spanish Language Proficiency and Cultural Awareness Examination prior to entering the credential program. Please call 619-594-1160.
12. Reading Instruction Competence Assessment (RICA). California Education Code Section 44283 requires that candidates for the preliminary or clear credential multiple subject pass this RICA requirement. The purpose of this assessment is to ensure that the candidate possess the knowledge and skills important for the provision of effective reading instruction to students. The RICA requirement applies to candidates who did not complete all credential requirements prior to October 1, 1998. Candidates must have passed the RICA in order to be able to file for the credential.
13. Appeals Process. Candidates who do not meet all the admission requirements may petition the PLC Department Admissions and Retention Committee for individual consideration; petition forms must be submitted concurrently with the application packets.
14. Application. Applicants should complete application procedures the semester prior to beginning the credential program. Call the department for Policy Studies application deadline.
In addition to the minimum admissions standards identified above, the PLC Department Admissions and Retention Committee may also consider qualifications such as previous teaching experience and relevant working experience with children. Due to the number of applicants, application to the program does not ensure admission.

15. Passage of California Basic Educational Skills Test (CBEST).
16. Passage of Reading Instruction Competence Assessment (RICA) Test.
17. Completion of an approved fifth year program (a minimum of 30 upper division or graduate-level postbaccalaureate units).
18. Demonstrated knowledge of the needs of and methods of providing educational opportunities to individuals with exceptional needs: Special Education 450.
19. Demonstrated knowledge of computer hardware, software, and applications to educational/classroom use (computer literacy): Educational Technology 470.
20. Knowledge of health education in California, including substance abuse and nutrition: Public Health 101, or Health and Human Services 280, or Policy Studies in Language and Cross-Cultural Education 901, and verification of CPR competency.
NOTE: Undergraduate students in their final semester prior to obtaining a baccalaureate degree may sign up for concurrent postbaccalaureate credit as explained in the section of this catalog on "General Regulations."

According to SB 2042 legislation, teachers will be able to earn Professional Clear Credentials upon successful completion of induction programs sponsored by their employers and approved by the California Commission on Teacher Credentialing.

## Single Subject Bilingual Cross-Cultural <br> Language and Academic Development Credential (B/CLAD) Emphasis: Spanish

## (Credential Code: 00100)

The Single Subject Bilingual Cross-Cultural Language and Academic Development (B/CLAD) Spanish emphasis is available for students interested in teaching in a bilingual credential 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 BCLAD/Spanish emphasis" in the application for graduate admission to SDSU (Code: 00100). Students applying for admission should electronically submit the university application available at http:// www.csumentor.edu along with the $\$ 55$ application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the Policy Studies in Language and Cross-Cultural Education Department.

## Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416
(1) Official transcripts (in sealed envelopes) from all postsecondary institutions attended;

## Note:

- Students who attended SDSU need only submit transcripts for work completed since last attendance.
- Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
(2) GRE scores (http://www.ets.org, SDSU institution code 4682);
(3) TOEFL score, if medium of instruction was in a language other than English (http://www.ets.org, SDSU institution code 4682).


## Policy Studies in Language and Cross-Cultural Education Department

The following materials should be mailed or delivered to:

Policy Studies in Language and Cross-Cultural
Education Department
San Diego State University
San Diego, CA 92182-1152
(1) Complete department application (available at the department Web site);
(2) California Subject Examination for Teachers (CSET) scores;
(3) California Basic Educational Skills Test (CBEST) scores;
(4) Spanish Language Proficiency Examination;
(5) TB verification;
(6) Three letters of recommendation, one of which must be from an elementary teacher if multiple subject or from a secondary teacher if single subject;
(7) Verification of early field experience ( 60 hours for multiple subject and 45 hours for single subject);
(8) Certificate of clearance (live scan);
(9) CPR that includes infant/child/adult;
(10) A written three pages ( $1-1 / 2$ each) of essays on goals and philosophy in education and an autobiography;
(11) $\$ 25$ application processing fee;
(12) Entrance interview will be conducted by one or more PLC faculty members.

## 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. Candidates are urged to take this examination as early as possible. This examination is required by the California Commission on Teacher Credentialing. Booklets containing registration forms and test information are available from the Student Testing, Assessment and Research Office in SS2549, 619-594-5216. Call the PLC Department for additional information on CBEST.
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 or through California Subject Examinations for Teachers (CSET). 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. 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 in the lobby of the Education building.

## 3. Prerequisite Courses:

| PLC 515 | Theories and Practices in Multilingual <br> Education ............................................... 3 units |
| :--- | :--- |
| ED 451 | Introduction to Multicultural Education ........... 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 Policy Studies in Language and Cross-Cultural Education Department (PLC), BA-248. Candidates are required to submit two sets of official transcripts from all colleges and universities attended and unofficial SDSU transcripts for GPA calculations.
5. Letter of Recommendation. Two professional references and one letter 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. Letter of recommendation 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 adolescent students in typical classroom settings within the three years. Evidence must be documented.
8. Oral English and Written Statement of Professional Goals and Philosophy. Have an interview with the admissions and retention committee of the PLC Department.
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. Candidates must submit the application directly to the California Commission on Teacher Credentialing. A copy of the application must be provided to the PLC Department.
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 BA-248, telephone 619-594-5155.
11. Language and Culture Examination. All candidates must take and meet the minimum Spanish Language Proficiency and Cultural Awareness Examination prior to entering the credential program. Please call 619-594-1160.
12. Appeals Process. Candidates who do not meet all the admission requirements may petition the PLC Department Admissions and Retention Committee for individual consideration; petition forms must be submitted concurrently with the application packets.
13. Application. Applicants should complete application procedures the semester prior to beginning the credential program. Call the department for PLC application deadline.
In addition to the minimum admissions standards identified above, the PLC Department Admissions and Retention Committee may also consider qualifications such as previous teaching experience and relevant working experience with children. Due to the number of applicants, application to the program does not ensure admission.
Program
ED 451

PLC 515 | Introduction to Multicultural Education.................. 3 |
| :---: |
| Theories and Practices in Multilingual |
| Education ......................................................................................................... 3 |

Second Semester
PLC $901 \begin{gathered}\text { Professional Portfolio I: Health and Safety in } \\ \text { Classroom Teaching (Cr/NC)............................. } 1\end{gathered}$
PLC 903 Bilingual Secondary Student Teaching Seminar .. 3
PLC 915B Teaching and Learning in the Content Area: English Language Development/Specially Designed Academic Instruction

3
PLC 964 Student Teaching for Bilingual Secondary Students II -12
EDTEC 470 Technologies for Teaching .................................... 3

## 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 with a written recommendation from the Ryan major adviser.
Candidates applying for the Single Subject Credential program after August 31, 1995 who have not satisfied subject matter competency through coursework or PRAXIS examination(s), must take and pass a new set of examinations for the Single Subject Credential in seven areas: biology\#, chemistry\#, English language arts, geoscience\#, mathematics, physics\#, and social science. Candidates for the science authorizations (noted with \#) must also take and pass a general science examination. Candidates should check with the Policy Studies in Language and Cross-Cultural Education Department (PLC), BA-248, to clarify the appropriate means for satisfaction of the subject matter competency requirement.
4. Passage of the Spanish Language Proficiency and Cultural Awareness Examination.
5. Demonstrated knowledge of principles and provisions of United States Constitution through successful completion of three-unit college level course or examination. Courses are listed in General Catalog section on "Graduation Requirements," IV. American Institutions Requirement.
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.

## B/CLAD Credential Program in Mexico

In consortium with seven other California State Universities and through the auspices of the CSU International Programs Office, SDSU offers a Multiple Subject B/CLAD credential that combines professional educational coursework conducted in California and Querétaro, Mexico, with the experience of cultural and linguistic immersion in the Mexican milieu. The program is designed and coordinated by the CSU International Teacher Education Council (ITEC), which provides oversight, direction, and institutional coordination of the program.

After a brief orientation at SDSU the end of June each year, candidates begin their opening session in Mexico with intensive language study. They complete a majority of their coursework and student teaching in Querétaro, including experiences in both public and indigenous schools. The final semester, beginning in April of each year, is completed in San Diego with coursework in California frameworks and student teaching in local bilingual schools.

Candidates must be admitted to the local CSU campus B/CLAD credential program in all areas except for language. Language proficiency can be at the low intermediate to fully proficient level at admission. Students are eligible for financial aid that would be available through their campus program. Cost of the program, including all university fees, room, and board is approximately $\$ 12,000$. Contact

Cristina Alfaro (calfaro@mail.sdsu.edu; 619-594-2916) or the Policy Studies in Language and Cross-Cultural Education Department (PLC) office 619-594-5155 for more information.

## Cross-Cultural Language and Academic Development (CLAD) Certificate (SB 2042)

The Cross-Cultural Language and Academic Development (CLAD) Certificate provides an interdisciplinary approach in linguistics and policy studies to prepare credentialed teachers in theory and application of English Language Development (ELD) and Specially Designed Academic Instruction in English (SDAIE) methodology for linguistically diverse students in grades K-12.
A. Prerequisites: Linguistics 420 or 520 .
B. Certificate Requirements:

1. Twelve units including: Policy Studies in Language and CrossCultural Studies 601, 602; Linguistics 552; Policy Studies in Language Cross-Cultural Studies 651* or 915A or Linguistics 550.
2. Six units of foreign language at the college level or equivalent.
3. Completion of program with a 3.0 grade point average.
C. Candidates who hold valid basic K-12 teaching credentials will also be able to apply directly to the California Commission on Teacher Credentialing for the state's CLAD Certificate for public school service.
Apply in the Policy Studies in Language and Cross-Cultural Education Department (PLC), BA-248, or call 619-594-5155 for more information.

* Prerequisite waived for students in this certificate program.


## Bilingual Cross-Cultural Language and Academic Development (BCLAD) Certificate

This experimental certificate program meets California Commission on Teaching Credentialing (CTC) competencies for the BCLAD (Spanish/English) Certificate through 12 units of coursework conducted in California and Mexico. It addresses the following three domains:

1. Methodology for Primary Language Instruction
2. The Culture of Emphasis
3. The Language of Emphasis

## Admission Criteria

Candidates must have an intermediate level of proficiency in Spanish and their CLAD credential/certificate to qualify, plus two letters of recommendation from school or district based personnel. Candidates will be administered a Spanish proficiency pre-and postexamination utilized by Long Beach State University and approved for their B/CLAD credential program.

## Coursework

1. Methodology for Primary Language Instruction: PLC 652 Multicultural Methods and Curriculum in $\begin{gathered}\text { Language Arts ....................................... } 3 \text { units }\end{gathered}$
2. The Culture of Emphasis: Latin America:

PLC 686 Seminar in Multicultural Education: Culture
of Latin America .....................................
Practicum/Field Experience: Hands on experience with
primary language teaching in Mexico and California: PLC 686 Seminar in Multicultural Education:

Field Experience Seminar in Effective Bilingual Classrooms in California and Mexico ........ 3 units
4. Spanish Language Development, Language of Emphasis: PLC 415 Fieldwork in Bilingual

Community Context 3 units

## Courses (PLC)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## UPPER DIVISION COURSES (Intended for Undergraduates)

## PLC 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.
PLC 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.
PLC 415. Fieldwork in Bilingual Community Context (3)
Two lectures and two hours of activity.
Prerequisite: Upper division standing.
Analysis of culturally and linguistically diverse school communities. Participation in bilingual classrooms/schools in preparation for entering B/CLAD credential program.

## PLC 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.
PLC 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 <br> (Also Acceptable for Advanced Degrees)

## PLC 515. Theories and Practices in Multilingual Education (3)

Theoretical, legal, and historical context for multilingual education; policies and practices in bilingual programs; school and community profiles. Fieldwork required. Some sections taught in Spanish. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 401.)
PLC 553. Language Assessment and Evaluation in Multicultural Settings (3)
Theories and methods of assessment and evaluation of diverse student populations including authentic and traditional models. Procedures for identification, placement, and monitoring of linguistically diverse students. Theories, models, and methods for program evaluation, achievement, and decision making.

## PLC 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<br>FAX: 619-594-7302

## Faculty

Emeritus: Andrain, Crain, Cutter, Feierabend, Gripp, Hobbs, Janssen, Johns, Kahng, Keiser, Lewin, Little, Miles, Padgett, Schultze, Soule, Strand, Terrell
Chair: King
Professors: Gupta, Heck, Hofstetter, King, Loveman
Associate Professors: Abdel-Nour, Alexseev, Carruthers, Fairlie, Guang, Kennedy, McCall, Maher
Assistant Professors: Adams, Graubart, Schreiber, Saccarelli, Varadarajan, Youde
Lecturers: Bee, Epps, Ingram, Kada, Mercurio, Smith, Speckmann, Stoddard, Sullivan

## 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.

## Impacted Program

The political science major is an impacted program. To be admitted to the political science major, students must meet the following criteria:
a. Complete with a grade of C or higher: Political Science 101, 102 (or 320), 103, 201 (one of the following equivalent courses can be taken in place of Political Science 201: Economics 201, Psychology 270, Sociology 201, Statistics 119 or 250, or logic course Philosophy 120). These courses cannot be taken for credit/no credit (Cr/NC);
b. Have a cumulative GPA of 2.50 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## 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 the major.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Political Science Major

## With the B.A. Degree in Liberal Arts and Sciences <br> (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." A total of 40 upper division units must be taken, of which 24 must be selected as described in the major. No more than 48 units in political science courses can apply to the degree.

A minor is not required with this major.
Preparation for the Major. Political Science 101, 102, 103, and three units of either statistics or logic (Political Science 201; Economics 201; Psychology 270; Sociology 201; Statistics 119, 250; Philosophy 120). (12 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$. The minimum grade in each class is C or higher.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or History 450W, or Linguistics 305W, or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

International Experience. The department encourages international experience for its majors. It will facilitate the transfer of political science credits for appropriate study abroad, student exchange, or other overseas programs. International internships may also receive political science credit, if approved in advance by a department adviser.

Major. A minimum of 24 upper division units to include (a) 21 upper division units in political science, three of which can include Women's Studies 375, provided that at least three units shall be taken in each field; and (b) a three unit capstone requirement, fulfilled by Political Science 495, 497, 498, or any 500-level political science course excluding Political Science 515 and 516.

Field I: Political Theory. Courses numbered 301A to 305, 406 to 410.
Field II: American Politics. Courses numbered 321 to 338,346 to 348,422 to 454,530 to 535 .

Field III: Comparative Politics. Courses numbered 356 to 370, 555 to 568.
Field IV: International Politics. Courses numbered 375, 393, 478 to 485,575 and 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; 12 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 (a or b or c):
a. Political Theory (Field I)
b. American Politics (Field II)
c. Comparative Politics and International Politics (Fields III and IV)

International Experience. The department encourages international experience for students in the political science minor. It will facilitate the transfer of political science credits for appropriate study abroad, student exchange, or other overseas programs. International internships may also receive political science credit, if approved in advance by a 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 in residence at San Diego State University.

## Courses (pols)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## POL S 101. Introduction to American Politics in

 Global Perspective (3) [AI] I, IIPolitics and basic political concepts as applied to the American political system. American political system as a constitutional democracy viewed in comparative perspective and within context of the global system. When taken with Political Science 102 will satisfy graduation requirement in American Institutions.

## POL S 102. Introduction to American and California Government

 and Politics (3) [AI] I, IIPolitical 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. Credit will not be allowed for both Political Science 102 and 320.
POL S 103. Introduction to Comparative Politics (3) [GE] I, II
Analytical models and techniques for examination of problems of decision making and control in various political systems. Emphasis on patterns of political action in various cultural contexts.

## POL S 201. Elementary Statistics for Political Science (3) [GE] I, II

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement; course in intermediate algebra; Political Science 101 and 102.

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: Political Science 201; Administration, Rehabilitation and Postsecondary Education 201; Biology 215; Civil Engineering 160; Economics 201; Psychology 270; Sociology 201; Statistics 119, 250.

## POL S 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.

## Field I: Political Theory <br> UPPER DIVISION COURSES (Intended for Undergraduates)

## POL S 301A-301B. History of Western Political Thought (3-3) [GE]

Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

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.

## POL S 302. Modern Political Thought (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

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.

## POL S 305. American Political Thought (3) [AI]

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.

POL S 406. Democracy and Mass Society (3)
Origin and development of theories of democracy and application of democratic ideas to contemporary political life.

## POL S 408. Nations and Nationalism (3)

Prerequisite: Upper division standing
Development and continuing appeal of national identities. How groups construct collective memories for political purposes. Relationship of nationalism to modernity, industrialization, and colonialism.
POL S 410. Contemporary Political Thought (3)
Prerequisite: Political Science 301B or 302 or 305 or 406.
Contemporary political questions and theoretical attempts to address them. Debates about justice, citizenship, and multiculturalism; as well as controversies over nature and scope of politics.

## Field II: American Politics UPPER DIVISION COURSES (Intended for Undergraduates)

## POL S 321. State Politics (3) [AI]

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.

## POL S 322. Creative Conflict Management (3)

One lecture and four hours of activity.
Facilitate interpersonal and group conflict resolution. New techniques in bargaining used to learn how to reach win-win agreement. The new paradigm taught is interest based negotiation (IBN).

## POL S 334. Politics of the Environment (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

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.

## POL S 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.

## POL S 336. Women's Issues in the American Political Process (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

American politics and public policy debates around women participating in politics, including support of and restrictions to feminism, legal strategies, and new understandings of public and private issues.

## POL S 338. The Legislative Process (3)

Detailed analysis of legislatures. Special attention devoted to impact of dynamic factors on formal procedures. May include a substantial amount of material about foreign political systems.

## POL S 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.
POL S 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.)

## POL S 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 students with credit in both Political Science 347A and 347B.

## POL S 422. Urban Politics (3) [AI]

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.

## POL S 425. Political Behavior (3)

Prerequisite: 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.

## POL S 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.

## POL S 430. Immigration and Border Politics (3)

Prerequisite: Political Science 102 or 320.
U.S. immigration and border politics within a global and historical perspective. Transformations of sovereignty, communities, identity, and rights within an era of mass migration and economic interdependence. Policy and popular debates about admission, border control, and the incorporation of migrants.

## POL S 435. Power and Poverty in the United States <br> (3)

Prerequisites: Political Science 101 and 102.
Impact of government upon income inequality and poverty in the United States. Examines programs of U.S. welfare state in comparative perspective and their successes and failures. Minimum standards for distributional justice and inquiries into obligations we have toward our fellow citizens.

POL S 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.

## POL S 454. Special Problems in Public Law (3)

Prerequisites: Political Science 101 and 102, and three upper division units within Field II.

Exploration of selected issues in the field of law.

## UPPER DIVISION COURSES <br> (Intended for Senior and Graduate Students) <br> (Also Acceptable for Advanced Degrees)

## POL S 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

## POL S 531. Interest Groups and Political Movements <br> (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.

## POL S 533. Democracy in America (3)

Prerequisite: Political Science 102 or 320.
Quality and quantity of democratic experience in contemporary America. Construction of American regime, arrangement of power within that regime, expansion and contraction of citizen participation, and principles that Americans generally espouse.
POL S 535. Gender and Politics (3)
Prerequisites: Political Science 101 and 102.
How gender matters in understanding key political science concepts including democracy, public/private participation and representation. Women involved in political institutions as elected officials, activists, and policy makers from U.S. and comparative perspectives.

## Field III: Comparative Politics UPPER DIVISION COURSES (Intended for Undergraduates)

POL S 356. Governments of Continental Europe (3) [GE]
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.

## POL S 357. Politics of England (3)

The structure and functioning of the English parliamentary system with emphasis on present-day political principles and parties.

## POL S 359. Government and Politics of Russia and the Commonwealth (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Contemporary developments in Russia and states of former Soviet Union. Focus on Gorbachev era and post-Gorbachev transformations of political, economic, and social systems.

## POL S 361. Governments and Politics of the Developing Areas (3) [GE]

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.

## POL S 362. Governments and Politics of East Asia (3) [GE]

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.

POL S 363. Governments and Politics of the Middle East (3) [GE]
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.

## POL S 364. Political Change in Modern Africa (3)

Dynamics of social and political change in modern Africa.
POL S 366. Latin American Politics (3)
(Same course as Latin American Studies 366.)
Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Introduction to Latin American Politics. Knowledge of political change and political systems in Latin America, viewed historically and comparatively, using concepts and theories applicable to more general political analysis.

## POL S 370. Political Violence (3) [GE]

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

(Intended for Senior and Graduate Students)
(Also Acceptable for Advanced Degrees)
POL S 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.

## POL S 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.

## POL S 564. Environmental Politics in Global Perspective

(3)

Prerequisite: Upper division or graduate standing
Comparative examination of environmental politics and policy in major world regions. Considers environmental politics with related policy challenges of economic growth, equity, and social justice. Course content varies with regional focus.

## POL S 566. Political Change in Latin America

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.

## POL S 567. Political Systems of Latin America

Prerequisite: Political Science 566.
Domestic and international politics of selected Latin American states.

## POL S 568. Mexican Politics (3)

Prerequisite: Political Science 101 or 103 .
Principal factors in Mexican governmental decision making. Ideology, political groups, tactics of leaders and governmental structure.

## Field IV: International Politics UPPER DIVISION COURSES (Intended for Undergraduates)

## POL S 375. International Relations (3)

Dynamics of conflict and cooperation among national, international and transnational actors; contributing political, economic, and social factors.

## POL S 393. Institute on World Affairs (3)

Weekly lectures by visiting experts on contemporary international relations. Speakers may include scholars, diplomats, government officials, journalists, military officers and international business executives.

## POL S 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.

## POL S 479. National Security Policy (3)

Objectives, instruments, and consequences of national security policy.

## POL S 482. International Relations of the Latin American

 States (3)Foreign policies of Latin American states; the Organization of American States; relationships with the United Nations and the United States.

## POL S 485. Politics of Globalization (3)

Prerequisite: Political Science 103 or six units of political science.
Ideas and practice of globalization since end of World War II, focusing on political debate around contemporary changes in trade, production, and global social relations, and on impact of globalization on political institutions such as state, civil society, social movements, and democracy.

## UPPER DIVISION COURSES

(Intended for Senior and Graduate Students)
(Also Acceptable for Advanced Degrees)

## POL S 575. International Relations of the Pacific Rim (3)

Prerequisite: Political Science 362 or 375.
Dynamics of conflict and cooperation among nations of the Pacific Rim. Stress on political and economics factors that shape interstate relations.

## POL S 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.

## Elective Courses <br> UPPER DIVISION COURSES <br> (Intended for Undergraduates)

POL S 320. American Institutions (3) [AI] 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. Credit will not be allowed for both Political Science 102 and 320.

## POL S 495. Internship in Local Politics (3) I, II

Prerequisites: Limited to senior political science majors; three upper division units within Field II.

Seniors in the major choose internships within San Diego County in government agencies, offices of elected officials, or others approved by instructor. Requires 80 hours of fieldwork and periodic analytical essays.

## POL S 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content and used for field-specific credits for the major as approved by the department. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## POL S 497. Senior Thesis (3) I, II

Prerequisite: Limited to senior political science majors with a cumulative 3.0 in upper division political science courses.

Senior thesis. Analysis of special topics.

## POL S 498. Internship in National Politics (12) I, II

Prerequisite: 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. For information on internship opportunities, especially state politics, refer to the internship section on the department Web site. Maximum credit six units applicable to the major in political science; maximum credit three units applicable to the minor in political science.

POL S 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.

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

## POL S 515. Research Design and Analysis in Political Science

Prerequisite: Political Science 201.
Conceptual analysis, measurement, and scaling. Elementary statistical analysis of behavioral data using computers and data processing using one of the major statistical packages.

## POL S 516. Statistics for Political Scientists

Prerequisite: Political Science 201.
Basic concepts, theories, and methods that are utilized by political and other social scientists using statistics and microcomputers. Serves as an intermediate level introduction to statistical methods in political science.

## POL S 596. Topics in Political Science (1-3)

Prerequisite: Upper division or graduate standing
Selected topics in political science. 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. Maximum credit of three units of 596 applicable to a master's degree. Maximum credit of six units of 596 and 696 applicable to a 30 -unit master's degree.

## GRADUATE COURSES

 Refer to the Graduate Bulletin.

OFFICE: Arts and Letters 134
TELEPHONE: 619-594-6588
FAX: 619-594-5293

## Faculty

Emeritus: Silverman
Interim Chair: Frantz
Assistant Professor: Sneed

## Offered by the Department of

Spanish and Portuguese Languages and Literatures
Major in European studies, with emphasis in Portuguese.
See European Studies.
Major in international business, with emphasis in Portuguese.
See International Business.
Minor in Portuguese.

## Portuguese Minor

The minor in Portuguese consists of a minimum of 15-17 units taught in Portuguese, six units of which must be in upper division Portuguese courses. Any course taught in English needs department approval to apply to the minor requirements. 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 in residence at San Diego State University.

## Language Requirement for the

 B.A. Degree in Liberal Arts and SciencesStudents electing the study of Portuguese to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Portuguese 301 or the equivalent level of achievement. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

## High School Equivalents

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the 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 or five college quarters, thus fulfilling the language requirement.

# Portuguese 

In the College of Arts and Letters

## Courses (PORT)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## 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.

No credit will be given for lower division courses taken after successfully completing any upper division Portuguese course. No credit will be given for Portuguese 101, 201, 301 taken out of sequence.

## PORT 101. Elementary/Intensive Portuguese I (5) [GE] 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. Not open to students with credit in Portuguese 201, 301, or higher numbered Portuguese course.

## PORT 201. Elementary/Intensive Portuguese II <br> (5) [GE] II

Prerequisite: Portuguese 101.
Continuation of Portuguese 101. Not open to students who have completed four years of high school Portuguese unless the fourth course was completed five or more years ago. Not open to students with credit in Portuguese 301 or higher numbered Portuguese course.

## PORT 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.

## PORT 299. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

All upper division courses in Portuguese are taught in

## Portuguese unless otherwise stated.

No credit will be given for lower division courses taken after successfully completing any upper division Portuguese course.

## PORT 301. Intermediate Portuguese Grammar and

 Composition (3) [GE]Prerequisites: Portuguese 201; and completion of the General Education requirement in Foundations II.C., Humanities.

Oral and written composition in Portuguese, based on models from modern Portuguese and Brazilian texts.

## PORT 401. Advanced Portuguese Grammar and Composition (3) [GE]

Prerequisites: Portuguese 301; and completion of the General Education requirement in Foundations II.C., Humanities.

Oral and written composition in Portuguese, based on models from modern Portuguese and Brazilian texts.

PORT 443. Contemporary Luso-Brazilian Civilization
Prerequisite: Portuguese 401.
Historical, cultural socioeconomic, ethnic, geographic, and political factors of modern Brazil and Portugal.

## PORT 496. Selected Studies in Portuguese

Topics in Lusophone language, literature, culture, and linguistics. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

## PORT 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)

## PORT 534. Portuguese Literature <br> (3)

Prerequisite: Portuguese 401.
Important movements, authors, and works in the literature of Portugal from its beginnings to the present.

## PORT 535. Brazilian Literature (3)

Prerequisite: Portuguese 401.
Important movements, authors, and works of the literature of Brazil from the colonial period to modern times.


## Professional Studies and Fine Arts

## Faculty

Faculty assigned to teach Professional Studies and Fine Arts courses are drawn from the Schools of Art, Design, and Art History, Music and Dance, and Theatre, Television, and Film.

## Media Arts and Technology Minor

To be admitted to the minor in Media Arts and Technology, the student must present a portfolio that includes work in the creative arts and/or creative digital technology.

The minor consists of 24 units to include Professional Studies and Fine Arts 320, 330; six units of Professional Studies and Fine Arts 430; three units selected from Art 157, Dance 181, Music 151, Television, Film and New Media 160, or Theatre 100; and nine lower division units selected from the following in two artistic disciplines: Art 101, 102, 103, 240, Dance 100, 171, 255, 290, Music 105, 110A, 110B, 160, 260, Theatre 107, 115, 240A, 240B, 240C.

Courses in the major department or required for the major may not be used to satisfy requirements for the minor. A minimum of six upper division units must be completed in residence at San Diego State University.

Students must officially declare the minor before taking any upper division courses acceptable for the minor. Students must meet the prerequisites for the minor in effect at the time they declare the minor.

Additional prerequisites may be required for the lower division courses in the minor.

## Courses (PSFA)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSE

## PSFA 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 <br> (Intended for Undergraduates)

## PSFA 320. Creativity and Communication in the Arts <br> (3 [GE]

Two lectures and two hours of activity.
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Common elements shared by various artistic forms. Focus on creativity and communication as exemplified in subject, form, function, medium, organization, and style. Attendance at dance, drama, film, music, television, and visual art events required.

> 6'It is the mark of an educated mind to be able to entertain a thought without accepting it."

\author{

- Aristotle
}


## PSFA 330. Artistic Practice in the Digital Age <br> (3)

Two lectures and two hours of activity.
Prerequisite: Upper division standing.
Multidisciplinary artistic practice related to digital technologies with emphasis on works that encourage new media collaboration and interaction with audiences. Critical issues pertinent to art and technology that seek to depict, question, and transform our cultural landscape.

## PSFA 430. Art and Technology Workshop (3)

Six hours of activity
Prerequisite: Grade of C or better in Professional Studies and Fine Arts 330

Collaborative and/or interdisciplinary practical experience in digital media using various approaches to the creative process in the arts. Maximum credit six units.

## PSFA 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.

# Psychology 

In the College of Sciences

OFFICE: Life Sciences 110<br>TELEPHONE: 619-594-5358<br>UNDERGRADUATE ADVISING OFFICE: Life Sciences 03<br>TELEPHONE: 619-594-5412<br>FAX: 619-594-1332<br>http://www.psychology.sdsu.edu

## Faculty

Emeritus: Alf, Borges, Bryson, Defran, Dicken, Fenson, Franzini, Gallo, Graham, Grossberg, Harari, Hillix, Hunrichs, Karen, Kass, Koppman, Leckart, Lee, Lynn, McCordick, McDonald, Mollenauer, O'Day, Penn, Plotnik, Psomas, Radlow, Rodin, Rosenbaum, Sattler, Schulte, Scollay, Segal, Smith, Spinetta, Stevens

## Chair: Murphy

Undergraduate Adviser: Ulloa
Professors: Atkins, Cronan, Dunn (IVC), Graf, Hornbeck, Klonoff, Litrownik, Malcarne, Marlin, Marshall, Martin, Matt, McGivern, Murphy, Price (Joseph), Prislin, Reed, Reilly, Riley, Saccuzzo, Sallis, Scott
Associate Professors: Castañeda (IVC), Conte, Friend, Hattrup, Mattson, Mueller, Price (Judy), Thomas, Twenge, Velasquez
Assistant Professors: Alfonso-Reese, Devos, Ehrhart, K., Ehrhart, M., Gallo, Gilbert, Roesch, Yeh

## Offered by the Department

Doctor of Philosophy degree in clinical psychology.
Master of Arts degree in psychology.
Master of Science degree in psychology.
Major in psychology with the B.A. degree in liberal arts and sciences.
Minor in psychology.

## The Major

What is psychology? Psychology is the scientific discipline that studies human behavior and mental processes: how human beings develop, learn, think and feel. Psychologists study the relative influences of heredity and experience throughout the life span in a wide variety of environments, including the laboratory, home, school, workplace, jury room, hospital and hospice. Faculty of the Department of Psychology at SDSU focus on a number of areas of psychology. Among these are:

- the effects of prenatal environments, including the influence of hormones and drugs on brain development and later functioning,
- the effects of childhood experience on social-emotional and cognitive development,
- the functioning of adults and the elderly in response to biological and environmental challenges,
- the normal processes of learning, memory and cognition,
- the effectiveness of behavioral and cognitive intervention procedures for enhancing physical and mental well-being.
What do psychology graduates do? The majority of students who graduate with a B.A. in psychology enter the job market and find employment in a broad range of settings, including business, state and local government agencies, and health-care services. Because the B.A. in psychology provides a liberal arts education as opposed to technical training, psychology majors will need to acquire job-specific experience or expect additional on-the-job training.

Does the B.A. in psychology prepare students for graduate work in applied areas? Students who have maintained strong academic records in psychology often enter masters degree programs in counseling: Clinical Social Work; Marriage, Family and Child Counseling; and School Psychology. Others pursue graduate work in a
number of related fields including Program Evaluation, Industrial and Organizational Psychology, Public Health, Social Ecology, Education, Program Development, Criminal Justice, Law, Administrative Social Work, Human Resource Development, and Medicine.

What is the Ph.D. in psychology? Graduate work which leads to the Ph.D. trains one to be a scientific psychologist, to study human behavior and mental processes, and to teach at the university. The Ph.D. in clinical psychology also includes supervised training in clinical practice. The time commitment for earning a Ph.D. degree is considerable, and these programs are highly competitive. Only a small percentage of psychology graduates will in fact go on to earn the Ph.D. in psychology.

## Impacted Program

The psychology major is an impacted program. To be admitted to the psychology major, students must meet the following criteria:
a. Complete the following nine units: Psychology 101, 270, and Biology 100. Complete an additional three units from the following courses: Psychology 201, 211, 230, 260, 271. The required 12 units must be completed with a grade of C or higher. With the exception of Psychology 201, these courses cannot be taken for credit/no credit (Cr/NC).
b. Have a cumulative GPA of 2.40 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## Advising

All students planning to major in psychology are urged to make an appointment at the Psychology Undergraduate Advising Office (Life Sciences 03) during their first semester of residence at SDSU. Students who plan to transfer as psychology majors should make an appointment before registering. The Advising Office is open year round and the telephone number is 619-594-5412.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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 50 units in psychology courses can apply to the degree.

A minor is not required for this major. However, depending on career goals, students may wish to consider minors in areas such as biology, business, public administration, recreation, social work, statistics, and others.

## General Requirements for the Major

Preparation for the Major. Psychology 101, 201, 211, 230, 260, 270, 271, and Biology 100. (20 units). With the exception of Psychology 201, these prerequisite courses may not be taken Cr/NC. The minimum grade in each class is C or higher. NOTE: Psychology majors may use Psychology 270 to satisfy Mathematics/Quantitative Reasoning General Education requirement. NOTE ALSO: A college level statistics course will be accepted from another department in lieu of Psychology 270.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements." Psychology majors are urged to discuss scheduling the language requirement with an adviser in the Psychology Undergraduate Advising Office.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(\mathrm{W})$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

The Major. Methods. All majors must complete Psychology 301 or 410 or both. Psychology 301 is suitable for most psychology majors, including those planning to enter the job market after graduation, those undecided about career plans, and those planning to pursue graduate work in related fields such as counseling

Students planning to pursue graduate work in psychology should take psychology 370 and 410 as early as possible. Note: Students enrolling in these courses must have earned a B or better in Psychology 270 or its equivalent. Students unsure of their statistical or computer competence may wish to take Psychology 301 before enrolling in Psychology 370 or 410.

Breadth. All majors must complete 12 units selected from a list of content courses covering areas of biological, developmental, abnormal, social, personality, cognitive, and sensation/perception.

Requirements for the Major. A minimum of 31 upper division units in psychology to include Psychology 301 or 410 and 12 units, including at least three units from each of the following groups. The remaining three units are selected from Group II or Group III.

Group I. One of the following:
Psychology 340 or 344.
Group II. At least one of the following:
Psychology 319;
Psychology 331 or 332;
Psychology 333 or 350.
Group III. At least one of the following:
Psychology 360 or 361 or 362;
Psychology 380;
Psychology 388.

## Recommendations for Electives

Employment with the B.A. Electives should be selected in accord with general career goals. Students interested in health and human services may take courses that focus on psychological health and well-being or issues related to child development. Those interested in business may take courses that focus on industrial, organizational and consumer issues or that emphasize computer skills, measurement, data analysis, or some combination of these.

Masters programs in counseling. At SDSU, a Master of Science degree in Counseling is offered by the College of Education and a Master of Social Work degree is offered by the College of Health and Human Services. For these programs students have considerable latitude in the selection of psychology electives, but it is important to develop an appropriate profile of volunteer or work experience.

Graduate programs in psychology. Most masters or doctoral programs in psychology require students to have strong research profiles. SDSU psychology majors can accomplish this by completing Psychology 370, 410, and becoming involved as early as possible in faculty-sponsored research.

## Psychology Minor

The minor in psychology consists of 19-21 units selected from one of the following areas:

Industrial/Organizational: Psychology 101, 270, and 271 or equivalent; 12 units of upper division psychology to include Psychology 319, 320, 321, and 340. Students with credit in Management 350 or Public Administration 340 may not enroll in Psychology 321, but may select another upper division psychology course. (19 units)

Personality and Social: Psychology 101, 230 and 211 or 260; 12 units of upper division psychology courses of which nine must be selected from Psychology 331 or 332 or 333, 340, 350 and 351. (21 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 in residence at San Diego State University.

## Courses (PSY)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Note: Many psychology courses have enforced prerequisites, meaning the student must provide proof of having completed the prerequisite to the instructor in order to remain enrolled. Students who have not completed an enforced prerequisite and who fail to drop the class officially will be assigned the grade of "WU," which is equivalent to an "F." Before enrolling in psychology courses, students should consult the catalog to determine that they have completed any enforced prerequisites.

## LOWER DIVISION COURSES

PSY 101. Introductory Psychology (3) [GE] I, II
Facts, principles, and concepts which are basic to understanding human behavior.

## PSY 201. Academic and Career Opportunities in Psychology (1) Cr/NC

Prerequisites: Psychology 101 and completion of 30 units.
Information about careers in psychology. Includes identification of career-related strengths and interests and information on postbaccalaureate options in psychology and related fields. Introduction to resources in Psychology Undergraduate Advising and Career Services.

## PSY 211. Learning (3) I, II

Prerequisite: Psychology 101.
Basic principles and research in animal and human learning.

## PSY 230. Developmental Psychology (3) I, II

Prerequisite: Psychology 101. Proof of completion of prerequisite required: Copy of transcript.

Psychological development of normal individual from conception through childhood, adolescence, and maturity. Emphasis on interdependence of various periods of the individual's life. Not open to students with credit in Child and Family Development 270 or General Studies 130.

## PSY 250. Faculty Student Mentoring Program (1) $\mathrm{Cr} / \mathrm{NC}$

Provides upper class mentors for freshman and community college transfer students. Mentors assist students in locating campus resources, linking them with departmental advisers, identifying tutors in science courses and encouraging students to participate in workshops. Maximum credit two units.

PSY 260. Introduction to Physiological Psychology (3) I, II
Prerequisites: Psychology 101 and Biology 100. Proof of completion of prerequisites required: Copy of transcript.

Elementary physiology of the nervous system. Physiological mechanisms underlying the psychological phenomena of sensation, perception, emotion, arousal, motivation, learning and memory, and cortical specialization.

## PSY 270. Statistical Methods in Psychology (3) [GE] I, II

Prerequisites: Psychology 101; concurrent registration in Psychology 271; satisfaction of the Entry-Level Mathematics requirement. Proof of completion of prerequisites required: Copy of ELM score or verification of exemption, and verification of registration in Psychology 271.

Quantitative methods in psychology for producing, analyzing, and interpreting data. Sampling, basic research designs, describing distributions through graphs and quantitative indices, linear correlation and regression, applications of normal probability curve, confidence intervals, and tests of significance. 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: Psychology 270; Administration, Rehabilitation and Postsecondary Education 201; Biology 215; Civil Engineering 160; Economics 201; Political Science 201; Sociology 201; Statistics 119 and 250.

## PSY 271. Data Analysis in Psychology (1) I, II

Two hours of activity in computer laboratory.
Prerequisite: Satisfaction of the Entry-Level Mathematics requirement and credit or concurrent registration in Psychology 270. Proof of completion of prerequisite required: Verification of registration in Psychology 270 or copy of transcript.

Statistical and graphic analysis and interpretation of psychological data using computer technology. Activities involve statistical software such as SPSS for Macintosh (Windows) as well as standard spreadsheets.

## PSY 296. 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 degree.

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

Note: To declare the psychology major, students must report in person to the Psychology Undergraduate Advising Office and provide the Undergraduate Adviser with evidence of having completed the requirements. Informal transcripts may be used by the Psychology Undergraduate Office to determine declaration of the major. Students should declare the major as soon as they have completed the necessary requirements and should complete no more than 12 units of upper division psychology courses prior to declaring the major. Students who are planning to transfer to SDSU should visit the Psychology Undergraduate Office and develop a plan for declaring the major during the semester prior to enrolling.

## PSY 301. Introduction to Research Methods in Psychology (4) I, II

Three lectures and two hours of activity.
Prerequisites: Completion of the Graduation Writing Assessment Requirement or the eligibility to enroll in an upper division writing course. Psychology 101, 270, and 271. Proof of completion of prerequisites required: Copy of transcript. Open only to psychology majors.

Methods used to answer questions in psychology, including case study, observation, survey, experimental, and field study procedures. Class projects using these methods, interpreting results and report writing; critically evaluating research findings.

## PSY 316. Behavior Modification <br> (3)

 (Offered only at IVC)Prerequisite: Psychology 101. Recommended: Psychology 211.
Contingencies of reinforcement, stimulus control, response shaping, aversive control, and other basic principles of operant behavior applied to understanding and modification of human behavior.

## PSY 319. Industrial and Organizational Psychology (3) I, II

Prerequisites: Psychology 101 and 270. Proof of completion of prerequisites required: Copy of transcript.

Broad-based survey of various content areas of industrial (e.g. selection, appraisal) and organizational (e.g. motivation, leadership) psychology. Underlying psychological principles that influence human behavior in the workplace. Not open to students with credit in Psychology 320 or 321.
PSY 320. Personnel and Industrial Psychology (3) I, II
Prerequisites: Psychology 319. Proof of completion of prerequisites required: Copy of transcript.

Psychological principles applied to industrial problems of selection, placement and training. Students who completed Psychology 321 prior to fall 2003 will be exempt from the Psychology 319 prerequisite during 2004-05 academic year.

## PSY 321. Organizational Psychology (3) I, II

Prerequisite: Psychology 319. Proof of completion of prerequisites required: Copy of transcript.

Human behavior in 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 350 or Public Administration 340. Students who completed Psychology 320 prior to fall 2003 will be exempt from the Psychology 319 prerequisite during 2004-05 academic year.

## PSY 331. Psychology of Infant and Child Development (3) I, II

Prerequisite: Psychology 101 and 230. Proof of completion of prerequisite required for Psychology 230: Copy of transcript.

Psychological development of normal child from infancy through childhood focusing on physical, social, cognitive, and linguistic aspects of development. Not open to students with credit in Psychology 432 covering this topic.

## PSY 332. Psychology of Adolescent and Early Adult Development (3) I, II

Prerequisites: Psychology 101 and 230. Proof of completion of prerequisite required for Psychology 230: Copy of transcript.

Psychological development of normal individual from adolescence through early adulthood focusing on physical, social, and cognitive aspects of development.

## PSY 333. Developmental Psychopathology (3)

Prerequisites: Psychology 101 and 230. Proof of completion of prerequisite required for Psychology 230: Copy of transcript.

Cognitive, affective, and social aspects of abnormal development from childhood through adolescence. Consideration, within a developmental framework, of etiological theories and factors, problem expression and treatment issues. Not open to students with credit in Psychology 453 covering this topic.

## PSY 340. Social Psychology (3) [GE] I, II

Prerequisites: Psychology 101; completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required.

The major problems and findings concerning group behavior and group membership, the socialization of the individual, and processes of social interaction.
PSY 344. Psychology and Culture (3)
Prerequisite: Psychology 101.
Impact of culture in each of psychology's major areas, theories, and empirical findings.

## PSY 345. Chicana and Chicano Psychology <br> (3)

Prerequisite: Psychology 101.
Evolution of psychology of Chicanos with emphasis on understanding underlying roots and foundations. Empirical research conducted with Chicanos in areas of psychology, psychiatry, and mental health.

## PSY 350. Abnormal Psychology (3) I, II, S

Prerequisites: Psychology 101; completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required.

Causes and treatment of abnormal behavior with emphasis on major behavior disorders

## PSY 351. Psychology of Personality (3) [GE] I, II, S

Prerequisites: Psychology 101; completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required.

Major theoretical approaches to individual differences and the study of the person. Techniques of personality assessment. Selected research findings.

## PSY 355. 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.

## PSY 360. Behavioral Neuroscience (3)

Prerequisites: Psychology 101 and 260. Proof of completion of prerequisites required: Copy of transcript.

Biological and physiological underpinnings of behavior: genetics, hormones, transmitters, plasticity/regeneration, development, and metabolism/nutrition. Analysis of their role in normal behavior, psychopathology, neurological disorders, and treatment of behavioral disturbances.

## PSY 361. Neuropsychology (3)

Prerequisites: Psychology 101 and 260. Proof of completion of prerequisites required: Copy of transcript.

Characterization of human brain-behavior relationships derived from neuropsychometric studies of healthy, neuropsychiatric and brain damaged populations. Emphasis on functional neuroanatomy and the effects of abnormal brain development and disease on processes such as cognition, memory, language, visual-spatial, and other functions.

## PSY 362. Cognitive Neuroscience (3)

Prerequisites: Psychology 101 and 260. Proof of completion of prerequisites required: Copy of transcript.

Functional organization of the human brain, including sensorimotor and cognitive systems and their functional interactions; development and evolution; normal and pathological plasticity. Approaches applied to healthy human brain, such as neuroimaging and event-related potentials.

## PSY 365. Drugs and Behavior (3)

Prerequisite: 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.

## PSY 370. Psychological Testing and Measurement (3) I, II

Prerequisites: Grade of B or better in Psychology 270 or equivalent statistics course; grade of B or better in Psychology 301. Proof of completion of prerequisite required: Copy of transcript. Note: Students electing to take Psychology 410 for the methods requirement may petition waiver of the Psychology 301 prerequisite by permission of the undergraduate adviser.

Measurement theory and the basic principles of testing. Selection, construction and critical evaluation of group tests of intelligence, personality, aptitude, interest and achievement.

## PSY 380. Cognitive Psychology (3)

Prerequisite: Psychology 101. Recommended: Psychology 211.
Theory and research on attention, learning, memory, thinking, understanding, and language.
PSY 388. Sensation and Perception (3)
Prerequisites: Psychology 101 and 260.
Theory and research in sensory and perceptual processes.
PSY 407. Health Psychology (3) I, II
Prerequisites: Psychology 211 and 270. Proof of completion of prerequisites required: Copy of transcript.

Behavioral components of major illnesses and causes of death and disability. Primary prevention of health problems through behavior change and psychological features of the health care system.

## PSY 410. Laboratory in Experimental Psychology (5) I, II

Two lectures and six hours of activity.
Prerequisites: Completion of the Graduation Writing Assessment Requirement or the eligibility to enroll in an upper division writing course. Psychology 211, a grade of B or better in Psychology 270 or equivalent statistics course, and Psychology 271. Proof of completion of prerequisites required: Copy of transcript.

Understanding of experimental design, quantitative methods, and experimental reports as they are applied to all areas of psychology.

PSY 412. Advanced Laboratory in Social Psychology (Offered only at IVC)
Two lectures and six hours of activity.
Prerequisite: Psychology 410. Proof of completion of prerequisites required: Copy of transcript.

Experimental literature, assigned and original laboratory projects in the field of social psychology.
PSY 442. Prejudice and Stereotypes (3)
Prerequisite: Psychology 340. Proof of completion of prerequisite required: Copy of transcript.

Classic and contemporary theories and research on prejudice and stereotyping to include origin and forms of phenomena, consequences, and approaches aimed at reducing them.
PSY 446. Advanced Topics in Social Psychology (3)
Prerequisite: Psychology 340. Proof of completion of prerequisite required: Copy of transcript.

Selected areas in social psychology. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

## PSY 452. Introduction to Counseling and Therapy (3)

Prerequisite: Psychology 350 or 351 . Proof of completion of prerequisite required: Copy of transcript.

Theory, methods, and research in psychological approaches to personality and behavior change. Not open to students with credit in Counseling and School Psychology 660.

## PSY 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.
PSY 470. Intermediate Statistics for Psychological Research (3)
Prerequisites: Grade of B or better in Psychology 270 and 271; grade of B or better in Psychology 301 or 410.

Theoretical foundations of statistics including probability theory, distribution theory, and statistical inference. Model-based statistical comparisons. Application of statistical theory to psychological research questions.

## PSY 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 acquisition of counseling and communication skills. May be repeated with approval of psychology undergraduate coordinator. Maximum credit six units. No more than 12 units of courses numbered Psychology 491, 494, 495, 497, 499 may be counted toward the major.

PSY 492. Responsible Conduct in Scientific Research (1) Cr/NC
Prerequisite: At least one introductory level science course.
Responsible conduct in scientific research. Topics include conflict of interest, plagiarism, reporting of scientific results, authorship, responsible use and care of animals, responsible use of human subjects.
PSY 494. Special Study:Techniques for Teaching and Tutoring in Psychology (2) Cr/NC
Prerequisite: Consent of instructor.
Practical knowledge and experience in psychology instruction and advanced content in a specific area of psychology. May be repeated with new content. Maximum credit four units. No more than 12 units of courses numbered Psychology 491, 494, 495, 497, 499 may be counted toward the major.

## PSY 495. Readings and Practice in Companionship Therapy (3) Cr/NC I, II

Prerequisites: Psychology 350 and three units from Psychology 230, 340, or 351. Proof of completion of prerequisites required: Copy of transcript.

Work with troubled or potentially troubled clients from selected community agencies, May be repeated with approval of psychology undergraduate coordinator. Maximum credit six units. No more than 12 units of courses numbered Psychology 491, 494, 495, 497, 499 may be counted toward the major.

## PSY 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.
PSY 497. Senior Project (1-3) I, II
Prerequisites: Twelve units of psychology and consent of instructor.

Individual investigation and APA-style report on a research project. Maximum credit six units. No more than 12 units of courses numbered Psychology 491, 494, 495, 497, 499 may be counted toward the major.

## PSY 498. Undergraduate Honors Thesis (3-6)

Prerequisites: Psychology 410, 3.5 overall GPA, 3.75 GPA in major, and consent of honors coordinator.

Directed research in psychology and completion of honors thesis. Required of students graduating with a Certificate of Recognition of Psychology Honors Thesis. May be repeated for a maximum of six units.

## PSY 499. Special Study (1-3) Cr/NC I, II

Individual study, including library or laboratory research and a written report. Maximum credit six units. No more than 12 units of courses numbered Psychology 491, 494, 495, 497, 499 may be counted toward the major.

## UPPER DIVISION COURSES

## (Also Acceptable for Advanced Degrees)

## PSY 501. History of Psychology (3)

Limited to graduate students or psychology majors with senior standing.

The historical background of modern psychology.
PSY 502. Philosophical Issues in Psychology (3)
Prerequisite: Six units of psychology.
Mind-brain relationship and other topics at the interface of psychology and philosophy.

## PSY 547. Applied Social Psychology (3)

Prerequisite: Psychology 340.
Problems, methods, and ethical issues related to applied social psychology. Applications to various settings to include educational system, business and industry, health settings, legal system, mass communication, and the environment.

## PSY 561. Advanced Neuropsychology (3)

Prerequisite: Psychology 360 or 361 or grade of B or better in Psychology 260.

Biological bases of neuropsychological function and dysfunction, relationships between brain structure and function, neuropsychological assessment tools.

## PSY 564. Seminar in Psychopharmacology and Behavioral

 Disorders (3)Prerequisite: Grade of B or better in Psychology 260.
Drugs as cause and cure of behavioral problems. A review of drugs commonly used to change behavior in primary schools, psychiatric centers, in-home programs and mental hospitals.
PSY 587. Advanced Principles of Learning and Cognition (3)
Prerequisites: Psychology 211, 270, and 380. Limited to graduate students or psychology majors with senior standing.

Empirical data, basic principles and theoretical positions of major theorists in learning and cognitive psychology.

## PSY 596. Selected Topics in Psychology (1-3)

Prerequisites: Psychology 101 and consent of instructor.
Intensive study in specific areas of psychology. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.

# Public Administration and Urban Studies 

OFFICE: Professional Studies and Fine Arts 100 TELEPHONE: 619-594-6224
FAX: 619-594-1165

In the College of Professional Studies and Fine Arts

A Member of the National Association of Schools of Public Affairs and Administration (NASPAA).

## Faculty

Emeritus: Boostrom, Calavita, Clapp, Dobbs, Gilbreath, Gitchoff, Henderson, Kitchen, Kochanski, Lee, Sparrow
Director: Henry
Professors: Caves, Gazell, Henry, Herzog, Pugh, Rea, Ryan, R., Sutton, Wilson
Associate Professors: Coates, Mclllwain, Pearl, Sabath, Stock
Assistant Professors: Baer, Franco, Mobley, Nurge, Ryan, S.

## Offered by the School of Public Administration and Urban Studies

Master of City Planning degree.
Master of Public Administration degree.
Concentration in city planning.
Concentration in criminal justice administration.
Master of science degree in criminal justice and criminology. (Jointly with the College of Arts and Letters.)
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.
Major in urban studies with the B.A. degree in liberal arts and sciences. See Interdisciplinary Programs.
Minor in public administration.
Certificate in fire protection administration (offered only in Extension).
Certificate in public administration (available at Imperial Valley Campus only).
Certificate in transborder public administration and governance (refer to the Graduate Bulletin).

## 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.

## Impacted Program

The public administration major is an impacted program. To be admitted to the public administration major, students must meet the following criteria:
a. Complete 18 units in the following courses with a grade of C or higher: Accountancy 201; Economics 101 and 102; Information and Decision Systems 180; Political Science 102; and a threeunit course in elementary statistics. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 60 transferable semester units;
c. Have a cumulative GPA of 2.40 or higher;
d. Students not meeting the minimum GPA requirement may petition for special consideration.
To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Public Administration Major

## With the B.A. Degree in Applied Arts and Sciences

## (Major Code: 21021)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.
Preparation for the Major. Public Administration 200, Accountancy 201, Information and Decision Systems 180, Economics 101 and 102, Political Science 102, and a three-unit course in statistics. (21 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$. The minimum grade in each class is $C$.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

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. Note: Students may only double count one elective course also taken to satisfy the university upper division Explorations requirement. 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.

Master Plan. 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 Advising and Evaluations one semester before graduation.

## Emphasis in City Planning <br> (Major Code: 21021)

Preparation for the Major. Public Administration 200, Accountancy 201, Economics 101 and 102, Information and Decision Systems 180, Political Science 102, and a three-unit course in statistics. (21 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$. The minimum grade in each class is $C$.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(\mathrm{W})$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

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.

Master Plan. A master plan of the courses taken to fulfill the major must be approved by a city planning program faculty adviser and filed with the Office of Advising and Evaluations one semester before graduation.

## Public Administration Minor

The minor in public administration consists of 24 units to include Public Administration 301, 310 or 312 or 315, 330, 450, Political Science 102 and a course in statistics or Information and Decision Systems 180, and two additional public administration 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 in residence at San Diego State University.

## Fire Protection Administration Certificate

## (Offered only in Extension)

This program is designed for persons holding chief rank or those wishing to prepare for chief rank in a fire protection agency. The courses are designed to provide background and essential information specifically oriented to the need of the fire chief. Specifically, the program is designed to provide the following:

1. Develop skills in the administration of public agencies with regards to fiscal and budgetary policies, personnel policies, methods of analysis and negotiation and bargaining.
2. Develop an understanding of and the skills required to solve problems faced by chief rank officers in the field regarding major disasters, responsibilities, and liabilities of fire agencies with respect to state and local laws.

## Certificate Requirements:

1. Complete the following prerequisites prior to taking upper division courses:
Public Administration X50. Fire Defense Planning
Public Administration X51. Fire Disaster Administration
2. Pass the following six courses with an overall grade point average of 2.0 or better: Public Administration 301, 330, 341, 420, 450, 530 (18 units).
3. Complete all coursework within four years after starting the certificate program.
4. Petition the College of Extended Studies upon completion of the certificate program.
Courses with relevant content may be substituted for the courses listed above with the approval of the certificate adviser. Upper division courses may be counted towards the public administration major.

For more information, call the College of Extended Studies at 619-594-2193.

## Public Administration Certificate <br> (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 (P A)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSE

## P A 200. The Urban Scene (3) I, II

Key issues in public administration, social policy, 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 <br> (Intended for Undergraduates)

PA 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.

## P A 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.

## PA 312. Management of State Governments (3) I

Administrative and constitutional problems of state management in the American federal system. Emphasis on California.

## P A 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.

## P A 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.

## P A 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.

## P A 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 Psychology 321.

## PA 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.

## P A 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.

## P A 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.

## P A 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.

## P A 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.

P A 460. Administration and Public Policy Development (3) I, II
Process of formulating public policy with emphasis on the role of public agencies.

## P A 475. The American City in the Cinema

Two lectures and two hours of activity.
Growth of American city and various aspects of urban life, such as immigration, industrialization, anti-urbanism, and the city of the future, as reflected in American films. (Formerly numbered Public Administration 475A.)

## P A 480. Leadership and the Public Sector

Prerequisite: Public Administration 301.
Leaders as energizing forces for public administration. Analysis of leadership theories and case studies.

## P A 485. Planning and Public Policy in U.S.-Mexico Border Region (3)

Prerequisite: Public Administration 301.
City planning, regional, and public policy issues in the binational Mexico-U.S. border region. Policy analysis: macro/regional and micro/ urban.

## P A 490. Community Organizing in a Diverse Society (3) I, II

Prerequisite: Upper division standing
Understanding of barriers, strategies, and benefits of community organizing in diverse communities. Studies of successful "grassroots" leaders and their political and cultural environments for purpose of analyzing and applying concepts of organizing.

## P A 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.

## P A 497. Investigation and Report (3) I, II

Prerequisite: Consent of instructor.
Analysis of special topics. Admission by permission of instructor.

P A 498. Internship in Public Administration (2-6) Cr/NC I, II
Prerequisites: Public Administration 301, 330, 340, 341, 450, and all lower division required courses; senior standing and a "B" (3.0) average in the major.

Students will be assigned to various government agencies and will work under joint supervision of agency heads and the course instructor. Participation in staff and internship conferences. Maximum credit six units.

## P A 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)

P A 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.

## P A 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.

## P A 520. Decision Making in the Urban Community

Prerequisite: Public Administration 310.
Processes of decision making in the management of urban communities.

## P A 525. The U.S. City Planning Process (3) I

Prerequisite: Public Administration 320 or graduate standing.
Description and critique of traditional city planning process; styles and roles of city planner; city planning values and ethics.

## P A 530. Negotiation and Bargaining in the Public Service

(3)

Prerequisite: Public Administration 301.
Specific issues such as strategies, the effects of threat, the physical setting, use of a third-party observer and theories of advocacy. Emphasis on analyzing simulations of the bargaining process and developing effective negotiation skills.

## P A 531. Governmental Employer-Employee Relations

Prerequisite: Public Administration 330.
Historical development, legal basis, and organizational implications of governmental employer-employee relations; emphasis on California local government.

## PA 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.

## P A 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.

## PA580. 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.

# Public Health 

## In the College of Health and Human Services

## Faculty

Emeritus: Barnes, Boskin, Burgess, Kessler, Kitzinger, McTaggart, Noto, Peddecord, Senn, Sorochan
Interim Director: de Peyster
Professors: Chang, de Peyster, Koch, Samimi, Williams, Yu
Associate Professors: Seidman, Usita
Assistant Professors: Ayala, Coleman
Adjunct: Kreisworth

## Offered by the Graduate School of Public Health

Doctor of Philosophy degree in public health.
Master of Public Health degree.
Master of Science degree in public health.
Master of Public Health and Master of Arts in Latin American studies degrees (concurrent program).
Master of Social Work and Master of Public Health degrees (concurrent program).
Major in health science with the B.S. degree in applied arts and sciences.

Emphasis in public health.
Minor in health science.

## The Major

The health science major with an emphasis in public health, provides a broad educational opportunity and exposure of undergraduate students to the field of public health and its many disciplines. The major prepares students to develop, implement, and assess public health programs conducted in varied settings, with diverse populations and aimed at reducing threats to public health. The major prepares students for entry-level positions in a variety of settings, including government agencies, private/voluntary agencies, hospitals, clinics, and international programs. Students develop basic competencies in public health concepts, theories, and methods. Students are exposed to the disciplines of epidemiology, environmental health, occupational health, health services administration, and behavioral science. The program of study uses examples of public health problems from all of these disciplines.

## Impacted Program and Standards for Admission

The health science major with an emphasis in public health is an impacted program. To be admitted to the emphasis in public health, students must meet the following criteria:
a. Have completed all lower division public health courses required for the major (Public Health 101, 290, and 294). These courses cannot be taken for credit/no credit (Cr/NC);
b. Receive a grade of B or higher in Public Health 101 and 290;
c. Have a cumulative GPA of 2.50 or higher;
d. Submit a written statement outlining career goals and personal motivation for entering the public health field.

OFFICE: Hardy Tower 119
TELEPHONE: 619-594-6317
FAX: 619-594-6112
http://publichealth.sdsu.edu

Acceptance to the health science major with an emphasis in public health occurs only in January and May of each year.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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 Public Health

Preparation for the Major. Public Health 101, 290, 294; Biology 100, 100L, 210, 212; Chemistry 100; Nutrition 107; Psychology 101; Sociology 101; Statistics 119 or 250. (37 units)

Public Health 101, 290, and 294 may not be taken Cr/NC. The minimum grade for Public Health 101 and 290 is B or higher.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or Rhetoric and Writing Studies 305W or 503W, or Linguistics 305W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 42 upper division units to include Public Health 301, 302, 303, 304, 305, 402, 490A, 490B, 490C; Biology 336; and at least 12 units selected from the following:
A. Six to nine units of electives from Public Health 331, 345, 353, 362, 450, General Studies 330, 340. Maximum of three units may be included from Public Health 353, General Studies 330, 340. Other electives as selected and offered by the Graduate School of Public Health, with approval of academic adviser.
B. Three to six units from one of the following categories:

Preprofessional. Science courses selected with approval of Graduate School of Public Health undergraduate academic adviser.
Research. Public Health 499 (Special Study) and completion of a senior research paper under guidance of a faculty member.

Practice. Public Health 497 (Supervised Field Experience); internship from a list of selected public health agencies.

## Health Science Minor

The minor in health science consists of a minimum of 18 units, to include six units of Public Health 101, 290, and 12 units selected from Public Health 301, 302, 303, 304, 305.

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 in residence at San Diego State University.

## Courses (PH)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

NOTE: Students who are not pre-health science or health science majors may take the following public health courses with consent of instructor.

## LOWER DIVISION COURSES

## P H 101. Introduction to Public Health (3)

Epidemics, environment, and community health challenges, including educational, political, environmental, regulatory, and organizational factors that support health of population groups and communities. (Formerly numbered Community Health Education 101.)
P H 290. Health Professions and Organizations (3)
Prerequisite: Credit or concurrent registration in Public Health 101. Health organization and agencies, locally, regionally, nationally, and internationally. Types of public health settings, and responsibilities in different types of health careers and public health positions. (Formerly numbered Community Health Education 290.)

## P H 294. Substance Abuse and Public Health (3)

Threats to public health by use and abuse of psychoactive drugs including alcohol, nicotine, cannabis, hallucinogens, narcotics, designer and prescription drugs; trends in prevention, treatment and early intervention programs with legal, historical, and political aspects of addiction. (Formerly numbered Community Health Education 574.)

## P H 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)

PH 301. Foundations and Practice of Public Health (3)
Prerequisites: Public Health 101 and 290 with grades of B or better. Not open to pre-health science major.

Organization of public health field, role of government and voluntary agencies in protecting and promoting health of individuals, groups, and communities. (Formerly numbered Community Health Education 560.)
P H 302. Communicable and Chronic Disease (3)
Prerequisite: Credit or concurrent registration in Public Health 301.
Impact of infectious and chronic diseases on health of the population. Epidemiologic methods, behavioral and biologic determinants, modes of transmission, and risk factors. (Formerly numbered Community Health Education 470.)

## P H 303. Health Behavior in Community Settings (3)

Prerequisite: Credit or concurrent registration in Public Health 301.
Behavior change theory, principles, predictive models, and their application to health behavior change programs. Review of research methods related to individuals and communities. Analysis of major health behavior change programs. (Formerly numbered Community Health Education 401.)

## P H 304. Environment and Public Health (3)

Prerequisite: Credit or concurrent registration in Public Health 301.
Environmental hazards of living and working in both industrialized and lesser developed societies. Chemical, biological, and physical agents in food, air, water, and soil. (Formerly numbered Community Health Education 350.)

## P H 305. Medical Care Organization and Delivery (3)

Prerequisite: Credit or concurrent registration in Public Health 301.
Organizational, economic, financial, political, and cultural factors affecting finance and delivery of health and medical services in the U.S. Topics include insurance, managed care, reimbursement, private and public programs, and regulation. (Formerly numbered Community Health Education 561.)

## P H 331. Emergency Preparedness and Disaster Response

Prerequisite: Public Health 301.
Roles and responsibilities of public health in disaster preparation, mitigation, planning, and response to epidemics, pandemics, natural disasters and bioterrorism, includes disaster assessment, surveillance, risk management, and principles of disaster planning. (Formerly numbered Community Health Education 331.)

P H 345. Injury Prevention (3)
Prerequisite: Public Health 301.
Epidemiology of traumatic injury within developmental, social, legislative, economic, and political contexts. Behavioral dilemmas in injury prevention and risk management. (Formerly numbered Community Health Education 345.)

## P H 353. Human Sexuality and Disease (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Development of sexual values, attitudes, and behaviors across ages, including evolution and occurrence of sexually transmitted infections worldwide. Focus on biological, medical, psychological, sociocultural, and political factors. Not open to students with credit in Community Health Education 353 and 475.

## P H 362. International Health (3) [GE]

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 Community Health Education 362.)

## P H 402. Public Health Communications (3)

Prerequisite: Credit or concurrent registration in Public Health 301.
Effective communication techniques used in public health campaigns, social marketing, and risk communication. Use of technology to design and conduct public health campaigns which focus on recognizing and overcoming communication barriers, including crosscultural issues. (Formerly numbered Community Health Education 402.)

## PH 450. Public Health Policy (3)

Prerequisites: Credit or concurrent registration in Public Health 301, 302, 303, 304, 305; Statistics 119 or 250.

Political, economic, cultural, institutional, and social factors influencing development and implementation of policy. U.S. and international private and public health organizations and their roles in shaping health policy. Public health advocacy by organizations.

## P H 490A. Health Data Analysis (3)

Prerequisites: Credit or concurrent registration in Public Health 301, 302; Statistics 119 or 250.

Identifying, retrieving, and using health data, with emphasis on statistical applications and interpretation of results for changing policy and health programs.

## P H 490B. Planning Public Health Programs (3)

Prerequisites: Public Health 301 and credit or concurrent registration in Public Health 490A.

Public health programming models, including community needs assessment, goals, objectives, and strategies for effective public health interventions. Preparation of grant proposals. (Formerly numbered Community Health Education 406.)

## P H 490C. Public Health Program Evaluation (3)

Prerequisites: Public Health 490A and credit or concurrent registration in Public Health 490B

Quantitative and qualitative evaluation methods in public health programs. (Formerly numbered Community Health Education 490.)
P H 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.

## P H 497. Supervised Specialization in Public Health (1-6)

Prerequisites: Senior standing in public health and Public Health 301, 302, 303, 304, 305

Tailored experience in one of three areas of specialization selected in consultation with major adviser: Preprofessional, Research, or Practice. Maximum credit six units. (Formerly numbered Community Health Education 497.)

P H 499. Special Study (1-3)
Prerequisite: Consent of special study adviser Individual study. Maximum credit six units.

GRADUATE COURSES Refer to the Graduate Bulletin.


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# Recreation 

## In the College of Professional Studies and Fine Arts

## Accredited by the National Recreation and Parks Association.

(Note: Students graduating from this program are immediately eligible to sit for the examination to become a Certified Leisure Professional and thereby acquire this valuable credential for professional advancement.)

## Faculty

Emeritus: Duncan, Hanson, Hutchinson, Lamke,
Peterson, Rankin
Chair: Lamke
Professors: Beck, L., Dixon, Gattas
Associate Professor: Testa
Assistant Professor: Sasidharan
Lecturers: Beck, A., Gabay, Sipe

## Offered by the Department of Recreation, Parks and <br> \section*{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 in clinical and community settings with the disabled. It stresses elements of both psychology and social science, as well as recreation leadership skills. Students learn about assessment, intervention, and evaluation for planning recreation programs.

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 state and national certification plans. They are employed typically by hospitals, convalescent and rehabilitation centers, and retirement communities.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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 must 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. (27 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Recreation 396 W with a grade of $\mathrm{C}(2.0)$ or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 54 upper division units to include Recreation 304, 305, 351, 464, 485, 487, 489, 498 (12 units), 561, 566, 575; Geography 370; and nine units selected from Biology 327; Geography 572, 575; Geological Sciences 301; History 441; Political Science 334; Psychology 340; Recreation 450, 477, 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 240; Information and Decision Systems 290. (25 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Recreation 396 W with a grade of $\mathrm{C}(2.0)$ or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 51 upper division units to include Recreation 304, 305, 351, 464, 498 ( 12 units), 561, 566, 575; nine units selected from Recreation 340, 450, 470, 475, 477, 485, 489, 580; and nine units selected from Counseling and School Psychology 400; Marketing 370, 371, 373; Psychology 321, 340; Public Administration 301, 340, 350, 460; Sociology 355, 444.

## Emphasis in Recreation Therapy

No new students will be admitted to this emphasis.
Preparation for the Major. Recreation 101, 107, 284; Biology 212; Information and Decision Systems 290; Psychology 101; Social Work 110; Sociology 101. (26 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Recreation 396 W with a grade of $\mathrm{C}(2.0)$ or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 54 upper division units to include Recreation 304, 305, 351, 361, 371, 464, 498 (12 unit section), 561, 566, 575; Biology 336; Psychology 350; and nine units selected from Counseling and School Psychology 400; Exercise and Nutritional Sciences 301; Psychology 333, 351, 452; Sociology 436, 441, 443, 444, 543. Note: To satisfy professional certification programs, completion of nine units should include one upper division course specifically oriented to "human growth and development" and one upper division course in a "helping area" outside of psychology, e.g. counseling, sociology, special education, or human services.

## Recreation Minor

The minor in recreation consists of a minimum of 22 units to include Recreation 101, 107, 304, 305, and nine additional upper division units selected from Recreation 340, 351, 361, 371, 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 in residence at San Diego State University.

## Courses (REC)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## REC 101. Introduction to Recreation Systems (3) I, II

Basic role of recreation and park systems in today's society. Scope of recreation services, their history, philosophy, facilities, programs, personnel and evaluation.

## REC 107. Recreation Planning and Leadership (4) I, II

Three 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.

## REC 284. Supervised Field Work (3) Cr/NC I, II, S

Prerequisites: Consent of instructor or department chair, credit or concurrent registration in Recreation 107, and 125 hours experience in recreation leadership.

Observation and participation in community recreation leadership. Practical experience in a variety of recreational settings. Eight hours per week at an agency.

## REC 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)

## REC 304. Challenges of Leisure (3) [GE] I, II

(Selected sections offered as distance education.)
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.)

REC 305. Wilderness and the Leisure Experience (3) [GE] 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.)

REC 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.

REC 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.

REC 361. Scientific Foundations of Recreation Therapy
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.

## REC 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.

## REC 396W. Writing in Recreation Settings (3) I, II

Prerequisite: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. 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.

REC 404. Cross-Cultural Perspectives of Tourism (3) [GE] I, II,S
Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Concepts, definitions, and measures of essential cultural components of tourism. Integrated view of interrelated socio-cultural tourism issues with an understanding and appreciation of diverse cultures.

REC 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.

## REC 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.

## REC 470. Recreational Travel and Tourism Management (3) I

Prerequisite: Recreation 101 or Hospitality and Tourism Management 201.

Tourism management, economics, marketing and development. Recognizing indicators of tourism's recreational, social and cultural impact. Organization of tourism industry and its components.

## REC 475. Commercial Recreation and Attractions Management (3)I

Analysis of commercial recreation field, including design, development, programming and marketing aspects of various commercial recreation enterprises.

## REC 477. Tourism Planning

Prerequisite: Recreation 101.
Nature and scope of tourism planning including planning theory and approaches, principles, and processes. Case studies utilized for analysis of impacts of tourism, amenities, attractions, services, facilities, transportation, and information-direction.

REC 484. Directed Leadership (3) Cr/NC I, II, S
One lecture and eight hours of supervised activity.
Prerequisite: Recreation 284.
Supervised leadership experience in public and private recreation agencies. Maximum credit six units.

## REC 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.

## REC 487. Outdoor Education and Environmental Interpretation (3)

Prerequisite: Recreation 101.
Philosophy, theory, methods, and scope of outdoor education and environmental interpretation.

## REC 489. Outdoor Leadership and Adventure Programming

Prerequisite: Recreation 305.
Theoretical principles and experience in leadership, judgment, and decision making in outdoor adventure programming.

## REC 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.

## REC 498. Internship in Recreation

Systems (6 or 12) Cr/NC I, II, S
Twenty off-campus hours required per week for 6-unit program, or 40 off-campus hours required per week for 12-unit programs.

Prerequisites: Consent of instructor or department chair, completion of all required lower division recreation courses, and completion of both Standard or Multimedia First Aid certificate and CPR certificate by end of semester.

Students will be assigned to various governmental, commercial, private or medical agencies conducting recreation programs. Variety of experiences in supervision and administration. Maximum credit 12 units.

## REC 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)

## REC 561. Legal Aspects and Research in Recreation and Parks (3)

Prerequisite: Recreation 464.
Legal obligations and research pertinent to delivery of leisure services. Liability and risk management, open space acquisition and preservation, constitutional guarantees, administrative regulations, contracts, and criminal law. Methods of investigation and evaluation, data analysis and reporting in relation to research needs in recreation, parks and tourism. (Formerly numbered Recreation 560.)

## REC 566. Administration and Fiscal Aspects in Recreation and Parks (3)

Prerequisite: Recreation 464.
Organizational behavior, planning, policy development, and future trends in recreation systems. Basic principles of fiscal management including budgeting, record keeping, and marketing as applied to recreation, parks and tourism agencies. (Formerly numbered Recreation 565.)

## REC 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.

## REC 580. Leisure, Recreation Therapy, 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 in relationship to recreation therapy services.

# Religious Studies 

In the College of Arts and Letters

OFFICE: Arts and Letters 662<br>TELEPHONE: 619-594-5185<br>FAX: 619-594-1004<br>E-MAIL: hoagland@mail.sdsu.edu<br>http://www-rohan.sdsu.edu/dept/relstweb/rsweb

## Faculty

Emeritus: Anderson, Downing, Friedman, Gefter, Johnson, Jordan, Khalil, Sparks
Chair: Moore
Professor: Holler
Associate Professors: Levitt, Moore
Assistant Professors: Mohammed, Timalsina
Lecturers: Boni, Mueller, Swayd

## Offered by the Department

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

## The Major

The academic study of religion is central to the creation of a community of world citizens. Our program is designed for students who live in a pluralistic society and who wish to investigate the role religions play in human life and society. Because religion has shaped the human story of almost every culture, it is difficult to understand human behavior or to interpret world events without grasping how religion has helped to determine them. As United States Supreme Court Justices Clark and Goldberg wrote in their decision allowing the study of religion in public schools, "one's education is not complete without a study of comparative religion or the history of religion and its relationship to the advancement of civilization." Part of the liberal arts, religious studies employs critical analysis and methods from a variety of disciplines to understand religious traditions as well as to question the dogmas, stereotypes, and prejudices that may surround those traditions. In addition to investigating religious symbols, texts, practices, and belief systems, the study of religion examines the relationship of religion to ethics, contemporary social issues, politics, history, psychology, science, literature, and the arts.

## Career Outlook

Religious studies prepares students for any career that requires critical thinking, analysis, oral and written communication skills, and the ability to reflect on questions of meaning and value. The study of religion is excellent pre-professional preparation for fields such as law, teaching, medicine, counseling, social work, conflict resolution, international business, foreign service, journalism, various ministries and other careers in non-profit organizations and public service. While some of our majors go on to do graduate work in religion or related academic fields, other graduates find themselves well prepared for careers requiring imagination, problem solving, communication, self-understanding, and awareness of human diversity.

## Double Majors and The Minor

Because religious studies is interdisciplinary and multicultural it is an excellent degree to complement many other majors. Double majors are easily accommodated within a well-designed four-year course of study, since the religious studies major has only a 36-unit requirement. Graduates from the program have had double majors with biology, communication, history, psychology, and other fields where the study of religion enhances or focuses the second major.

The 15-unit minor is a less ambitious way to combine your major interests with the academic study of religion. Anyone who is interested in human beliefs, behavior, and values would benefit from a minor in religious studies.

## 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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; Religious Studies 100 or 103. (6 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units in religious studies to include Religious Studies 400 and at least three units from Sacred Texts, nine units from World Traditions, nine units from Religion, Society, and Culture, three units from Religion in the Americas, and three additional units selected from any of the four areas.

Area 1, Sacred Texts: Religious Studies 301, 305, 310. (3 units)
Area 2, World Traditions: Religious Studies 320, 325, 328, 333, 335, 338, 339, 345, Philosophy 351, 412. (9 units)

Area 3, Religion, Society, and Culture: Religious Studies 350, 353, 358, 363, 364, 370, 373, 376, 378, 379, Philosophy 535, Sociology 338, Women's Studies 515. (9 units)

Area 4, Religion in the Americas: Religious Studies 390A, 390B, 395, 530, American Indian Studies 470. (3 units)

Courses with variable content $(496,580,581,582,583,596)$ may be used in the four areas of study when deemed relevant by the department adviser.

## Religious Studies Minor

The minor in religious studies consists of a minimum of 15 units taken in the Department of Religious Studies to include at least three lower division units and 12 upper division 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 in residence at San Diego State University.

## Courses (REL S)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## REL S 100. Exploring the Bible (3) [GE] I, II

Basic content and themes of the Hebrew Bible and New Testament using methods of contemporary biblical studies. Attention to ancient Near Eastern and Greco-Roman cultural settings as well as the impact of the Bible on contemporary culture.
REL S 101. World Religions (3) [GE] I, II
Major world and selected tribal traditions from primal times to present. Broad historical development and philosophical overview including founders, teachings, beliefs, practices, and interactions with culture, such as art, literature, politics.
REL S 103. American Religious Diversity (3) [GE] I, II
Religious identities and traditions of diverse peoples living in the US. Major world religions in context of contemporary multicultural America. Religions of indigenous peoples and religious movements which have arisen in US. Not open to students with credit in Religious Studies 102.

REL S 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

## Area 1: Sacred Texts <br> UPPER DIVISION COURSES (Intended for Undergraduates)

## REL S 301. Hebrew Bible (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Literature, history, major themes of Bible; methods and concerns of contemporary biblical studies. Situates folkloric, political, heroic, poetic, and religious meanings of texts among their original audiences.

## REL S 305. The New Testament (3) [GE] II

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors and Religious Studies 301.

Structure, composition, meaning of New Testament; methods for interpreting Biblical texts. Focus on letters of Paul, post-Pauline writings, Gospel accounts of Jesus's life.

## REL S 310. The Qur'an (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Major themes of Qur'an including cosmology, eschatology, good and evil, gender, God and monotheism, People of the Book (Jews and Christians), and role of religion in society. Attention to historical period in which the Qur'an was compiled.

## Area 2: World Traditions <br> UPPER DIVISION COURSES (Intended for Undergraduates)

## REL S 320. Judaism (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Jewish history, culture, theory, and practice. Biblical roots of modern Jewish beliefs, basic movements within modern Judaism; Jewish calendar and Jewish life cycle as seen in Hebrew Bible, short stories, and films.

## REL S 325. Christianity (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Historical development of Christian traditions and major issues confronting Christianity today. Beliefs and practices important to Christian self-understanding, debates over authority of Bible, accommodations to modern science, and relationship with non-Christian religions.

## REL S 328. Islam (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Islamic religion and culture in Asia, Africa, and Near East. History, doctrines, practices, literatures, social and intellectual movements, role of Mohammed, and gender relations within Islam as understood in global context.

## REL S 333. Ancient Near Eastern Religions (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Religious worlds of ancient Egypt, Mesopotamia, and Canaan through an examination of gods, goddesses, mythology, death, afterlife, and religious art, architecture, and archaeology.

## REL S 335. Comparative Mysticism (3)

Prerequisite: Three units of religious studies.
Meaning, origin, and development of mysticism. Purgation, illumination, annihilation, separation, covenant, and union of soul with the Divine as found in world scriptures, writings of prominent mystics, and mystical movements such as Kabbalists, Sufis, and yogic traditions.

## REL S 338. Buddhism (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Origins and interpretations of Buddhist teachings in India, China, Tibet, and Japan. Trends in contemporary Buddhism and foundational concepts on Theravada and Mahayana Buddhism including their development in various Asian geographical settings.

## REL S 339. Religions of India (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Major religious traditions from pre-Aryan Harappas to post-colonial India. Literatures of Hinduism, religious practices such as yoga and tantra, scriptural schools, sacrificial cults, Vedas, Upanishads, Bhagavad-Gita, Vedanta philosophies, early Buddhism.

## REL S 345. Religions of East Asia (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Confucianism, Taoism, and Buddhism in broad historical and cultural context. Focus on Chan (Zen) school of Buddhism, Confucius, neo-Confucianism of Ju Xi, and Taoist masters Lao Ze and Chuang Ze.

## Area 3: Religion, Society, and Culture UPPER DIVISION COURSES (Intended for Undergraduates)

## REL S 350. Dynamics of Religious Experience (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Religious experiences created in dynamics of myth, ritual, pilgrimage and community using film as primary data base. Primal and shamanistic religion, ecstatic experience and mysticism.

## REL S 353. Religion and Psychology (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities

Religious dimensions of psyche using insights from academic and transpersonal psychology. Construction of religious identities through spiritual practice and transformation. 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.

## REL S 358. Death, Dying, and the Afterlife (3) [GE]

Prerequisites: Three units of religious studies. Recommended Completion of the General Education requirement in Foundations II.C., Humanities.

Diverse ways religions deal with process of dying and rituals involved in transition of life to death. Grieving, end-of-life decisions, views on afterlife.

## REL S 363. Religion and the Sciences (3) [GE]

Prerequisites: Three units of religious studies. Recommended Completion of the General Education requirement in Foundations II.C., Humanities.

Views of science and religion as separate, conflicting, complementary, and overlapping. Galileo and the Church, the Scopes Trial, and twentieth century physics provide historical examples for study of assumptions about science and religion.

## REL S 364. Religion and Film (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Representations of religion in modern cinema and analysis of how religious themes and imagery in film reflect societal values, beliefs, and morals.

## REL S 370. Women in Religion (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Women's contributions to and transformations of mainstream and marginal religions, including ancient goddess worship and modern witchcraft, indigenous religions, and major world religions. Spiritual questions and quests of contemporary women.

## REL S 373. Women and the Bible (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Narrative, legal, and poetic material about women in Bible. How women are depicted by authors of Bible, lives of women in ancient world, how women and women's studies are transforming biblical studies

## REL S 376. Nature, Spirituality, Ecology (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Cross-cultural religious views of nature. Attention to sacred texts, writings of naturalists, deep ecologists, and ecofeminists on place of nature in spirituality and role of spirituality in ecology.

## REL S 378. Religion and the Marketplace (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Modes of consumption and economics in relation to religious beliefs and practices. Use of religion in marketing and marketing of religion.

## REL S 379. Religious Violence and Nonviolence (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Role of religion in terrorism, hate groups, scapegoating, domestic and ecological violence, versus role of religion in peacemaking and movements for social justice. Nonviolent philosophies of Gandhi, Martin Luther King, Jr., and pacifism in Jain, Buddhist, and Christian traditions.

## Area 4: Religion in the Americas <br> UPPER DIVISION COURSES <br> (Intended for Undergraduates)

## REL S 390A-390B. Religious Experience in America (3-3) [AI]

Prerequisite: Three units of religious studies.
Major religious movements, events, and issues affecting development of US government and institutions. 390A: From time of Spanish contact to 1900. 390B: Religion's impact in twentieth century. This year-long course satisfies the graduation requirement in American Institutions.

## REL S 395. Alternative Religious Movements (3) [GE]

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

America's alternative religions, popularly called "cults," and why they attract spiritual seekers. New religions and transplanted Asian and African religions. Theoretical structures of belief systems and concrete specifics on different groups.

## UPPER DIVISION COURSE

 (Also Acceptable for Advanced Degrees)REL S 530. Religion and Revolution (3)
Prerequisite: Three units of religious studies.
Twentieth century liberation movements in their religious expression, from 1960's Latin America through Black theology, feminist theology, eco-theology, and queer theology. International religious liberation movements, particularly in Africa and the Americas.

## Elective Courses <br> UPPER DIVISION COURSES <br> (Intended for Undergraduates)

REL S 400. Senior Seminar (3)
Prerequisite: Religious studies major with more than 90 units; others with consent of department chair.

Senior capstone seminar in major. Discussion and research on topics in religious studies. Formal research paper and presentation.

## REL S 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.

## REL S 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)

## REL S 580. Major Figure (3)

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.

## REL S 581. Major Theme

(3)

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.

## REL S 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.

## REL S 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

## REL S 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 Studies 

In the College of Arts and Letters

## OFFICE: Extended Studies Center 303 <br> TELEPHONE: 619-594-6515 <br> FAX: 619-594-6530

## Faculty

Emeritus: Johns, Miller, Sweedler-Brown
Chair: McClish
Professor: McClish
Associate Professors: Bekins, Boyd, Hindman, Ornatowski, Poole, Quandahl, Robinett

Assistant Professors: Bordelon, Werry
Lecturers: Allen, Annicchairico, Boeck, Borgen, Brush, Bryson, Cavender, Costello, Davies-Morris, Dill, Emery, Fielden, Finn, Fish, Fox, Goodman, Hoffman, Jendian, Jones, Kilcrease, Kline, Linfor, Mack, Maggio, Manley, Merriam, Moorin, Owens, Renner, Richardson, Sager, Sherman, Sigmon, Sipp, Stagnaro, Taylor, Thompson, Towner, Underwood, Vanderpot, Williams, J., Williams, T.

## Offered by the Department

Master of Arts degree in rhetoric and writing studies.
Minor in rhetoric and writing studies.
Certificate in advanced technical and scientific writing (refer to the Graduate Bulletin).

## 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 integrating writing and reading with critical thinking throughout the curriculum.

Developmental Writing Program: 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: Completion of courses in this program fulfills the "Written Communication" requirements for the Communication and Critical Thinking portion of the SDSU General Education program.

Upper Division Courses: The department offers expository writing ("W") courses which satisfy the university's Graduation Writing Assessment 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.

## Rhetoric and Writing Studies Minor

The minor in rhetoric and writing studies consists of a minimum of 15 upper division units to include Rhetoric and Writing Studies 500W, 510, 511, and six units selected from one of three strands:

Literacies and the Teaching of Writing: Rhetoric and Writing Studies $509^{*}$, Education $451^{\star}$, Linguistics $430^{\star}$, $530^{*}$, or $550^{\star}$.

Professional Discourses: Rhetoric and Writing Studies 501, 502*, $503 \mathrm{~W}^{\star}, 504^{\star}, 506^{\star}$, $507^{*}$, or $508^{*}$.

Rhetoric and Culture: Communication 355*, 360*, 450*, 508* 545*, 580*, 589*, 592*.

A minimum of six upper division units must be completed in residence at San Diego State University.

* Additional prerequisites required.


## Courses (RWs)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## (Non-Baccalaureate Credit)

Rhetoric and writing studies courses numbered below 100 may not be used to satisfy graduation requirements.

## RWS 92A. Developmental Writing: Fundamentals of Writing

Cr/NC/RP I, II, S
Academic prose, emphasizing the purpose, structure, and style of academic essays. Designed to improve student skills in planning, drafting, revising, and editing essays. Open to students who have not satisfied the SDSU lower division writing competency requirement. Students attaining a score of 8 or better on the final examination earn a grade of "Cr" and satisfy the SDSU writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of "RP" (Report in Progress). Students receiving an "RP" grade should enroll in Rhetoric and Writing Studies 92B. Not open to students with credit in Rhetoric and Writing Studies 97. Rhetoric and Writing Studies 92A is equivalent to Rhetoric and Writing Studies 97.

## RWS 92B. Developmental Writing:

## Intermediate (3) Cr/NC I, II, S

Prerequisite: Open only to students who have earned "RP" (report in progress) in Rhetoric and Writing Studies 92A but have not satisfied the Writing Competency requirement.

Evaluation based on student writing portfolio. Credit in Rhetoric and Writing Studies 92B satisfies the SDSU writing competency requirement.

## RWS 94. Developmental Writing for International or Bilingual Students (3) $\mathrm{Cr} / \mathrm{NC} / \mathrm{RP}$ I, II

(Same course as Linguistics 94.)
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 writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of "RP" (Report in progress). Students receiving an "RP" should re-enroll in Rhetoric and Writing Studies 94 or Linguistics 94.

## RWS 97. Developmental Reading and Writing <br> (Learning in Communities - LINC) (4) $\mathrm{Cr} / \mathrm{NC} / \mathrm{RP}$

Three lectures and two hours of activity.
Registration in Rhetoric and Writing Studies 97 is restricted to students participating in the Learning in Communities (LINC) program which integrates instruction in the writing process and academic prose with the content of a General Education course. Rhetoric and Writing Studies 97 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 Studies 97 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 writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of "RP." Students receiving an "RP" grade should enroll in Rhetoric and Writing Studies 92B. Not open to students with credit in Rhetoric and Writing Studies 92A. Rhetoric and Writing Studies 97 is equivalent to Rhetoric and Writing Studies 92A. (Formerly numbered Rhetoric and Writing Studies 97A.)

## RWS 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.
A. Learning Skills
C. Tutorial

## LOWER DIVISION COURSES

(Acceptable for Baccalaureate Credit)

## RWS 100. Rhetoric of Written Argument (3) [GE] I, II

(Same course as English 100.)
International students are advised to take Linguistics 100.
Prerequisites: Satisfaction of the SDSU writing competency requirement. (See Graduation Requirements section of catalog.)
Proof of completion of prerequisites required: Copy of EPT or competency scores or verification of exemption; proof of credit ( Cr ) in Rhetoric and Writing Studies 92A or 92B or 97.

Writing and reading as critical inquiry, designed to help students undertake university-level writing projects. Focus on rhetoric of written arguments. Students learn to use sources in their writing and make appropriate decisions about structure, cohesion, and rhetorical conventions. Not open to students with credit in a higher numbered composition course or Rhetoric and Writing Studies 101 or Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100.

## RWS 101. Rhetoric of Written Argument (3) [GE]

Prerequisites: A score of 146-150 on EPT and a score of 8 or better on EPT essay. Only for students who have not passed EPT.

Follows the prescribed Rhetoric and Writing Studies 100 curriculum. In addition, students are required to attend eight individual tutoring sessions throughout the semester. Students must be concurrently enrolled in Rhetoric and Writing Studies 98A or 98C. Not open to students with credit in a higher numbered composition course or Rhetoric and Writing Studies 100 or Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100 .

## RWS 200. Rhetoric of Written Arguments in

 Context (3) [GE] I, II
## (Same course as English 200.)

International students are advised to take Linguistics 200.
Prerequisites: Satisfaction of the SDSU writing competency requirement and Rhetoric and Writing Studies 100 or 101 or Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

Further practice in writing, reading, and critical thinking. Emphasis on rhetoric of written arguments in context and using multiple sources in writing. Continued attention to structure, cohesion, and rhetorical conventions. Not open to students with credit in Africana Studies 200, Chicana and Chicano Studies 200, English 200, General Studies 260D, or Linguistics 200. Completion of Rhetoric and Writing Studies 200 may require completion of the library workbook assignment.

## RWS 253. Grammar and Usage for Writers (2)

(Same course as Linguistics 253.)
Prerequisite: Passage of EPT or transfer writing assessment.
Instruction in sentence structure with attention to integrating sentences into their logical and rhetorical contexts. Identifying and understanding source of sentence-level writing problems.

## RWS 280. Academic Reading and Writing (3)

(Selected sections offered as distance education.)
Prerequisite: Score of 7 or below on Writing Proficiency Assessment (WPA).

Academic prose, emphasizing purposes, structures, and styles of academic writing, with particular emphasis on elements of argument. Designed to improve students' ability to plan, draft, revise, and edit essays, as well as to improve their ability to read and analyze complex academic texts.

## RWS 281. Academic Reading and Writing for Second Language Learners and International Students (3)

## (Same course as Linguistics 281.)

Prerequisite: Open only to students who qualify for Rhetoric and Writing Studies 280 and whose first language is not English.

Academic prose, emphasizing purposes, structures, and styles of academic English writing. Designed to improve students' ability to plan, draft, revise, and edit essays, as well as to read and analyze complex academic texts. Additional emphasis on grammatical features of English relevant to the second language population.

## RWS 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.

## RWS 299. Special Study (3)

Prerequisite: Consent of department chair and instructor. Individual Study.

## UPPER DIVISION COURSES (Intended for Undergraduates)

RWS 305W. Writing in Various Settings (3)
(Selected sections offered as distance education.)
International students are advised to take Linguistics 305W.
Prerequisite: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

Composing effective texts for a wide range of situations in and out of the university. Learning to adjust textual elements for specific purposes, audiences, and settings. Enhances critical reading and writing skills by exploring how content contributes to meaning and effectiveness.

RWS 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.

## RWS 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)

## RWS 500W. Advanced Composition (3) I, II

Prerequisite: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. 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.

## RWS 501. Editing (3) I

Prerequisites: Rhetoric and Writing Studies 305W or 500W.
Fundamentals of professional editing. Functions of an editor. Document development, style, and style guides. Editing tools and technologies. Preparing text for publication and production.

## RWS 502. Tools for Technical Communicators (3) I, II

Prerequisite: Rhetoric and Writing Studies 503W.
Fundamental software tools for technical communicators. Electronic document style and format. Preparing text electronically for publication and production. Developing online and Internet documentation. Rhetorical issues in electronic writing technologies.

## RWS 503W. Technical Writing (3) I, II, S

Prerequisites: Rhetoric and Writing Studies 200. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. 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 or professions, including technical writing style and rhetorical strategies of designing technical documents.

## RWS 504. Problems in Technical Communication (3) II

Prerequisite: Rhetoric and Writing Studies 503W. Recommended: Graphics or drawing course.

Problems in technical writing, including graphics, printing, and translation of technical documents; types of technical communication, including reports, manuals, and proposals; manuscript editing and proofreading; audience analysis, readability and usability; writing and recognition of clear technical prose.

## RWS 506. Writing Internship (3) Cr/NC I, II, S

Prerequisites: Consent of instructor and successful completion of a 500-level writing course with a grade of B or better.

Intensive experience in writing and editing documents while student is under the joint supervision of an academic instructor and a professional coordinator.

## RWS 507. Technical Communications in Nonprofit Organizations (3) II

Prerequisite: Rhetoric and Writing Studies 503W.
Developing specific technical communication skills for nonprofit organizations. Learning nonprofit documentation: proposals, mission statements, advertising, member surveys, capital campaigns. Promoting volunteerism. Interacting with nonprofit boards. Adhering to requisite state and federal regulations.

## RWS 508W. Scientific Writing (3)

Prerequisites: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. Proof of completion of prerequisite required: Test scores or verification of exemption; copy of transcript.

Developing specific writing skills for scientific research and communication. Learning scientific documentation: research paper, case report, review, abstract, proposal, conference presentation. Adhering to standards and regulations. (Formerly numbered Rhetoric and Writing Studies 508.)
RWS 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.

## RWS 510. Rhetoric and Culture (3) I, II

Prerequisite: Rhetoric and Writing Studies 500W.
Interplay of rhetoric, writing, and culture, including race/ethnicity, gender, class, and other cultural considerations. Role of texts in shaping and shifting community knowledge, identity, norms, and values.

## RWS 511. Literacy, Rhetoric, and Technology (3)

Role that technologies of communication have played in concepts of language, literacy, and cognition. Histories and theories of literacy (with emphasis on rhetorical tradition), and their relevance to research on electronic text.

## RWS 596. Special Topics in Rhetoric and Writing Studies (1-3)

Prerequisite: Consent of instructor.
Selected topics in rhetoric and writing studies. May be repeated with new content and 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 master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

## RWS 599. Special Study (1-3) Cr/NC

Directed individual study. Maximum credit six units.
GRADUATE COURSES
Refer to the Graduate Bulletin.

# Russian 

OFFICE: Business Administration 304
TELEPHONE: 619-594-5111
FAX: 619-594-8006
E-MAIL: russian.coord@sdsu.edu
http://www-rohan.sdsu.edu/~russian/

## Faculty

Emeritus: Dukas, Fetzer
Chair: Benkov
Professor: Shapovalov
Lecturer: Shembel

## Offered by the Department of European Studies

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.
Major in European studies, with emphasis in Russian.
See European Studies.
Major in international business, with emphasis in Russian.
See International Business.
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 Commonwealth of Independent States is felt internationally. Knowledge of Russian will provide students with a better understanding of one of the world's important and influential countries.

The Russian program offers a wide range of courses, including specialized courses in literature and linguistics. This major is useful preparation for graduate programs in international trade, international law, librarianship, public administration, and journalism. This program requires intensive scholarly investigation and may prepare students for careers in which fluency in Russian is essential.

Knowledge of Russian, particularly when combined with business related courses, is becoming a valuable asset. Many American firms have opened offices in Moscow and St. Petersburg, and the volume of American trade with Russia has been growing at a rapid pace. As a result, there are indications of an expanding interest in Russian graduates by American business organizations with employment possibilities in the United States and Russia. Moreover, students may consider the option of pursuing a double major in another European language.

Other career possibilities include Russian specialists, generally employed by the federal government: high school teachers, librarians, translators, and interpreters.

Russian majors and minors are encouraged to explore the opportunities for study in Russia that are now becoming available.

## 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## In the Department of European Studies In the College of Arts and Letters

## Russian Major

## With the B.A. Degree in Liberal Arts and Sciences <br> (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 53 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.

International Experience Requirement. All Russian majors are required to complete a study abroad program in Russia or any other Slavic-language speaking country, consisting of a minimum of six units ( 90 hours). However, all majors are strongly encouraged to complete a more extensive abroad experience by participating in a semester or academic year program. To fulfill the study abroad requirement, Russian majors must enroll in an approved program. Unapproved study abroad programs will not meet the international experience requirement for the major.

Preparation for the Major. Russian 100A, 100B, 110, 200A, 200 B. (23 units)

Language Requirement. The language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units in Russian to include Russian 301, 305A or 305B, 310, 311, 430, 441, 501; and nine units of upper division electives in Russian.

## Russian Major

In preparation 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 48 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. (20 units)

Language Requirement. The language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 24 upper division units in Russian to include 301, 303, 305A, 305B, 430, 501; 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 European Studies. The candidate must consult with the chair of the department concerning this examination.

## Russian Minor

The minor in Russian consists of a minimum of 22 units to include Russian 110, 200A, 200B, Russian 301 or 311, and six units of upper division Russian courses. Any course taught in English, except Russian 110, needs department approval to apply to the minor requirements.

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 in residence at San Diego State University.

## Language Requirement for the

## B.A. Degree in Liberal Arts and Sciences

Students electing the study of Russian to fulfill the 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 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 or five college quarters, thus fulfilling the language requirement.

## Courses (russn)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## 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 unless otherwise stated.

No credit will be given for lower division courses taken after successfully completing any upper division Russian course taught in Russian.

No credit will be given for Russian 100A, 100B, 200A, 200B, 301 taken out of sequence.

RUSSN 100A. Beginning Russian 1 (5) [GE] 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.

## RUSSN 100B. Beginning Russian 2 (5) [GE] 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.

## RUSSN 110. Slavic Legends and Tales (3) [GE]

Introduces fairy tales, folk epics and legends and examines aesthetic, social, and psychological values they reflect. Cultural influence of Slavic folklore in literature, music, painting, film. Taught in English.

## RUSSN 200A. Intermediate Russian 1 (5) [GE] 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.)

## RUSSN 200B. Intermediate Russian 2 (5) [GE] II <br> Prerequisite: Russian 200A.

Continuation of Russian 200A.

## UPPER DIVISION COURSES

(Intended for Undergraduates)
All upper division courses in Russian are taught in Russian unless otherwise stated.

RUSSN 301. Advanced Grammar and Composition (3) [GE]
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.

## RUSSN 303. Political and Business Russian

Prerequisite: Russian 301.
Commercial and political Russian, with emphasis on international relations and socioeconomic aspects of contemporary Russia.

## RUSSN 305A. Russian Literature of the Nineteenth Century (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Nineteenth century Russian prose fiction with particular consideration of the works by Pushkin, Turgenev, Tolstoy, Dostoevsky, and Chekhov. Taught in English with readings in English.

## RUSSN 305B. Russian Literature of the Twentieth Century (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Twentieth century Russian literature including works by Zamiatin, Pasternak, Akhmatova, and Solzhenitsyn. Taught in English with readings in English.

## RUSSN 310. Russian and East European Cinema (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Through study of films from 1950s to post-Soviet times, major concerns of East Europeans are addressed through cinema. Interrelationships among cinematic traditions of Russia, Poland, Hungary, Czechoslovakia, and former Yugoslavia/Balkans. Taught in English.
RUSSN 311. Russian Through Media (3)
Two lectures and two hours of activity.
Prerequisite: Russian 200B.
Russian stylistics and discourse grammar in context. Emphasis on communicative skills: listening, speaking, reading, and writing. Students work with Internet materials, newspapers, magazines, and excerpts from Russian and Soviet films.

## RUSSN 430. Russian Civilization (3) [GE]

Prerequisites: Russian 200B; upper division standing for majors; completion of the General Education requirement in Foundations II.C, Humanities required for nonmajors. Proof of completion of prerequisite required: Copy of transcript.

Russian civilization through literary texts, visual art, music, and film. Relationships between art and politics, art and national identity, art of the fantastic and doublespeak, art of postcommunism and postmodernism.

## RUSSN 435. Russian and Central European Jewish Literature (3) [GE]

Prerequisite: Upper division standing for majors; completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Russian and Central European Jewish literature from the 1860's to the present. Explore how literature written in Russian, German, Polish, and Lithuanian by writers of the Jewish origin reflects the changing problems of Jewish national identity. Taught in English.

RUSSN 441. Structure of Modern Russian
(3)

Two lectures and two hours of activity.
Prerequisite: Russian 301.
Linguistic structure of current standard Russian. Topics include Russian phonology, phonetics and intonation, verbal and nominal morphology, syntax.

## RUSSN 495. Russian Internship (3) $\mathrm{Cr} / \mathrm{NC}$

Prerequisites: Upper division standing in major and consent of instructor.

Practical work experience in a field related to Russian studies. Work done under joint direction of activity sponsor and instructor. Approved international internships may count towards international experience requirement for major.

RUSSN 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 <br> (Also Acceptable for Advanced Degrees)

## RUSSN 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.

## RUSSN 570. Issues in Russian Literary and Cultural Studies

Prerequisites: Russian 301 and 305A or 305B.
Themes within literary, intellectual, and cultural movements in Russian literature of the nineteenth to twenty-first centuries. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

RUSSN 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

Social Science Single Subject Credentials<br>Dr. Carole Putko, Arts and Letters 580<br>619-594-5304

## Offered by Social Science

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

Emphasis in Africa and Middle East.
Emphasis in environment.
Teaching major in social science for the single subject teaching credential.

## The Major

Social science is a multidisciplinary program, encompassing the faculties and courses of 12 departments-Africana Studies, American Indian Studies, Anthropology, Chicana and Chicano Studies, Economics, Geography, History, 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 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.

## Impacted Program

The social science major in preparation for the single subject teaching credential is an impacted program. To be admitted to the social science major in preparation for the single subject teaching credential, refer to the program description for specific impacted criteria.

## 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Social Science Major

## With the B.A. Degree in Liberal Arts and Sciences <br> (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, Political Science 201, Psychology 270, Sociology 201, or Statistics 119 or 250. A six-unit sequence in each of three of the following departments selected from: (1) Anthropology 101, 102; (2) Chicana and Chicano Studies 120A-120B; (3) Economics 101, 102; (4) Geography 101, 102; (5) History 105, 106; 109, 110; 115, 116; (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)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements." Spanish is recommended for those planning to work in this part of the United States.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(\mathrm{W})$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

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, Chicana and Chicano 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 Chicana and Chicano studies or religious studies or psychology or women's studies from courses listed below.

Students specializing in Chicana and Chicano studies must select courses from Chicana and Chicano Studies 301, 303, 320, 350A-350B, 480 and take the remaining 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 Chicana and Chicano studies or psychology or religious studies or women's studies. These six units can only be selected from the following courses:

Africana Studies 331, 445, 470, 471A, 471B.
American Indian Studies 303, 400, 440.
Chicana and Chicano Studies 301, 303, 320, 350A-350B, 480.
Psychology 320, 321, 340, 350, 351, 355, 452.
Religious Studies 301, 305, 328, 339, 345, 353, 363.
Women's Studies 310, 320, 325, 340, 341A-341B, 360, 370, 375, 530, 580.
Master Plan. A master plan of courses taken to fulfill the major must be approved by the social science faculty adviser and filed with the Office of Advising and Evaluations at least one semester prior to graduation.

## Emphasis in Africa and Middle East

The adviser for this emphasis is Dr. Charles H. Cutter, Department of Classics and Humanities.

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.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Students are encouraged to meet the 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."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

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: Humanities 460; six units from History 473, 474, 475, 476, and 574; and Political Science 363 or 364. In addition, the following courses are recommended: Anthropology 350, 424; Economics 365, 489; Political Science 361, 481; Religious Studies 328.

## Emphasis in Environment

The adviser for this emphasis is Dr. Sarah S. Elkind, Department of History.

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 109, 110 or 115, 116, Political Science 101 and 102, Sociology 101 and 150. Additional recommended courses include Geological Sciences 100 and 101.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(\mathrm{W})$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include:
A. Twelve units of core courses to include nine units from three departments selected from Economics 452, 453 or 454, Geography 370 or 573 , History 441 or 540 , Political Science 334 or 335 , plus three additional units from this list; and
B. An additional 18 units from at least three departments selected from Economics 452, 453, or 454; Geography 370, 378, 409, 570, 572, 573, 574, 577; History 441, 540; Political Science 334, 335; Sociology 350. Also acceptable: Biology 315, 324, 327, 540; Geological Sciences 301, 303; Community Health Education 350; Philosophy 332; Physics 301; Recreation 305, 487.

## Social Science Major

## In preparation for the Single Subject Teaching Credential

## With the B.A. Degree in Liberal Arts and Sciences

 (Major Code: 22011)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.

Impacted Program. The social science major in preparation for the single subject teaching credential is designated as an impacted program. To be admitted to the major, students must meet the following criteria:
a. Complete with a grade of C or higher: Economics 101, 102; Geography 102; History 100, 101, 109, 110; Political Science 102; Religious Studies 101. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 60 transferable semester units;
c. Have a cumulative GPA of 2.50 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Economics 101, 102; Geography 102; History 100, 101, 109, 110; Political Science 102, Religious Studies 101. (27 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$. The minimum grade in each class is $C$ or higher.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements." Spanish is recommended for those planning to work in this part of the United States.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 42 upper division units to include:
United States and California History: History 409, 410, 445, and three units selected from History 533B, 535, 536, 539, 540, 543, 544B, 545.

American Government and Politics: Three units selected from Political Science 305, 321, 334, 335, 347A, 348, 406, 436, 531.

United States Geography: Geography 321.
Ethnic and Women's Studies: Six units from two departments selected from Africana Studies 322, 470, 471A-471B, American Indian Studies 400, 420, 440, Chicana and Chicano Studies 301, 350B, 375, History 422, Women's Studies 341A-341B, 370, 375.

World History: Nine units distributed as follows:
History 412 and six additional units selected from two of the following areas:
Africa and Middle East: History 474, 475, 476, 574.

Asia: History 420, 421, 567, 570
Latin America: Chicana and Chicano Studies 350A; History 415, 416, 550, 551.
Europe: History 407, 408, 440, 502, 503, 504, 505, 506, 507, 512A, 512B; Women's Studies 340.
International Politics: Three units selected from International Security and Conflict Resolution 300; Political Science 356, 359, 361, 363, 364, 375, 478, 479, 566, 568; Women's Studies 580

Economics: Three units selected from Economics 330, 338, 360, 382, 490.

Additional Social Science Courses: Three units selected from Africana Studies 331, 420, 445, 452, 453; American Indian Studies 320, Anthropology 350, 410, 432, 529; Chicana and Chicano Studies 303, 320, 480; Psychology 340, 350, 351, 355; Sociology 350, 355, 421, 433, 444, 450, 457, 522, 537; Women's Studies 310, 320, 385, 515, 521, 522, 536.

## Courses (socsi)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Note: Social science courses are not required for the social science major.

## LOWER DIVISION COURSES

SOCSI 201A. Introduction to SPSS (1) I, II, S
Two hours of activity for 12 weeks and six hours to be arranged.
Prerequisite: Consent of instructor.
Use of computer package SPSS to organize and modify numerical data. Selected procedures include data file creation, frequency, and descriptive statistics, graphs and charts, cross tabulation, t-tests, oneway anova, correlation, and regression. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J.

## SOCSI 201B. Introduction to Access (1) I, II, S

Two hours of activity for 12 weeks and six hours to be arranged.
Creation of relational databases. Topics include tables, queries, forms, reports, macros, and modules. Will perform sorts and filters and use expressions to create calculated fields and aggregate functions. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J. Not open to students with credit in Information and Decision Systems 180.

## SOCSI 201C. Introduction to Excel (1) I, II, S

Two hours of activity for 12 weeks and six hours to be arranged.
Use of spreadsheet software. Create and format spreadsheets and workbooks, work with formulas and functions, charts, lists and databases, macros, and "what-if" analysis. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J. Not open to students with credit in Information and Decision Systems 180.

## SOCSI 201D. Internet Research (1) I, II

Two hours of activity for 12 weeks and six hours to be arranged.
World Wide Web (WWW) using search engines and other sources of information. Utilize available library resources and conduct research activities using the World Wide Web. Creating a simple web page to upload to the web. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J.

## SOCSI 201E. Introduction to Word and PowerPoint (1)

Two hours of activity for 12 weeks and six hours to be arranged.
Using word processing software to create formatted text, tables, graphics, and techniques for enhancing long documents such as theses and dissertations. Using presentation software to create and modify presentations appropriate to myriad topics, including text, graphics, animations, and hyperlinks. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J. Not open to students with credit in Information and Decision Systems 180.

SOCSI 201F. Introduction to Web Page Development (1) I, II
Two hours of activity for 12 weeks and six hours to be arranged.
Prerequisite: Social Science 201D or commensurate experience.
General principles of web page design and creation as applicable to academic environment to include effective web page design techniques, HTML editing software, introductory HTML, and graphics manipulation. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J.

## SOCSI 201G. Introduction to SAS (1) I, II

Two hours of activity for 12 weeks and six hours to be arranged.
Prerequisite: Credit in an elementary statistics course.
Conducting data analysis and data management using SAS software as applicable to users with an elementary statistics background to include understanding basic SAS procedural concepts (such as data and proc steps), inputting, reading, and modifying data, and basic SAS statistical procedures. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J

SOCSI 201H. Advanced SPSS for Windows (1) I, II
Two hours of activity for 12 weeks and six hours to be arranged.
Prerequisites: Credit in Social Science 201A and credit in an elementary statistics course.

Continuation of Social Science 201A. Explores more advanced data analyses and use of syntax, options, reports and scripts in SPSS to include analysis of variance, regression, logistic regression, non-parametric tests, and other advanced statistical procedures. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J.

## SOCSI 201I. Advanced Microsoft Access (1) I, II

Two hours of activity for 12 weeks and six hours to be arranged.
Prerequisite: Credit in Social Science 201B.
Review Access database objects (tables, queries, forms, reports, macros and modules) covered currently in Social Science 201B. Also includes Visual Basic for Applications, ActiveX Controls, and working with data object models. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J.

## SOCSI 201J. Advanced Microsoft Excel (1) I, II

Two hours of activity for 12 weeks and six hours to be arranged.
Prerequisite: Credit in Social Science 201C.
Continuation of Social Science 201C. More advanced topics in Excel, including application of advanced functions, worksheet simulation and statistical functions, "what-if" and statistical data analysis, and customizing Excel using macros. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J

## SOCSI 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 COURSE

 (Also Acceptable for Advanced Degrees)
## SOCSI 596. Advanced Topics in Social Science (1) Cr/NC

Two hours of laboratory for 11 weeks and 10 hours to be arranged.
Prerequisites: Upper division or graduate standing and consent of instructor.

Advanced topics in software for social science research. 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 credit of six units of 596 applicable to a bachelor's or master's degree.

## OFFICE: Hepner Hall 119 TELEPHONE: 619-594-6865

## Accredited by the Council on Social Work Education.

## Faculty

Emeritus: Ajemian, Baily, Brennen, Butler, Davis, Dean, Griffin, Guidry, Haworth, Hughes, Ishikawa, Kahn, Kelley, Kukkonen, Landsverk, Raymer, Reichert, Riehman, Sardinas, Siman, Stanford, Sucato, Valle, Zuniga
Director: Harbert
Associate Director: Finnegan
Professors: Clapp, DeGennaro, Harbert, Hohman, Jones, Shillington
Associate Professors: Barrio, Engstrom, Finnegan, Harris, Mathiesen, Packard, Rasmussen
Assistant Professors: Carrilio, Jacobs, Min
Lecturers: Daly, Dudley, Eichler, Keith, Letourneau, Milstein, Newell, Segars, Siegel

## Offered by the School

Master of Social Work degree.
Master of Social Work and juris doctor degrees (concurrent program).
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.

## 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.

## Impacted Program

The social work major is an impacted program. To be admitted to the social work major, students must meet the following criteria:
a. Complete 24 units with a minimum GPA of 2.40 and a grade of C or higher: Social Work 110, 120; Biology 100 or any three

# Social Work 

In the College of Health and Human Services
units in a human biology course; Economics 101 or three units of any economics course; Psychology 101; Public Health 101; Sociology 101; Psychology 270 or Sociology 201 or Statistics 250. These courses cannot be taken for credit/no credit (Cr/ NC);
b. Complete a minimum of 60 transferable semester units;
c. Have a cumulative GPA of 2.40 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Social Work Major

## With the B.A. Degree in Liberal Arts and Sciences

 (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. Social Work 110, 120; Biology 100 or any three units in a human biology course; Economics 101 or three units of any economics course; Psychology 101; Public Health 101; Sociology 101; Psychology 270 or Sociology 201 or Statistics 250. (24 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$. The minimum grade in each class is C or higher.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 44 upper division units, in a prescribed course sequence, to include Social Work 350, 360, 361, 370, 381, 382, 483A-483B, 489A (4 units), 489B (4 units), 491, and nine units of upper division electives in social work (3 units may be taken from another department).

Time Limitation: All social work courses taken for the major must have been taken and completed within seven years of the granting of the undergraduate degree. Courses taken prior to the seven year rule must be repeated. This policy applies to courses taken at SDSU or transferred from another four-year college or university or appropriate courses from a community college. No exceptions will be made to this policy.

Life Experience: No social work premajor or major courses can be waived or credit given towards the undergraduate degree for life experience including but not limited to employment, time spent in the military, training or workshops or volunteer experiences.

Transfer Credit: Transfer credit students may transfer 18 nonsocial work courses in the premajor and six units of Social Work 110 and 120 from a California community college or four year institution with a signed articulation agreement with SDSU. Students from outside the state must have transcripts evaluated to determine if their courses meet SDSU criteria to be accepted for the premajor. The 44 units in the major can only be transferred from a Council on Social Work Education (CSWE) accredited or candidacy status social work undergraduate program.

Prescribed Course Sequence: Students must complete all 300level social work courses (18 units) before they will be allowed to enroll in Social Work 483A and 489A. There is no required order of the 300-level courses so they may be taken in any combination or in either fall or spring semesters.

| JUNIOR YEAR (18 units) |  | SENIOR YEAR (26 units) |  |
| :--- | :--- | :--- | :--- |
| SWORK 350 | SWORK 360 | SWORK 483A | SWORK 483B |
| SWORK 370 | SWORK 361 | SWORK 489A | SWORK 489B |
| SWORK 382 | SWORK 381 | SWORK 491 | Three Electives |

Field Practicum. All students must enroll in field practicum. This is a 16-hour per week internship at a School of Social Work arranged and supervised social work community agency (students are not permitted to locate their own agencies). Students begin field practicum during the fall semester only and must concurrently enroll in Social Work 483A and 489A. The continuation of field practicum is offered in spring semester only when students must concurrently enroll in Social Work 483B and 489B. These courses are sequential and students must complete both "A" courses before going on to the two "B" courses. During the spring semester, preceding enrollment in field practicum, students attend a field orientation meeting and obtain the field application packet from the SDSU Bookstore. Specific date and time is posted on the field bulletin board outside Hepner Hall 119 and announced in class. In addition, students should read the appropriate section in the current student handbook. The section outlines all requirements and processes the student is expected to follow. The coordinator of field instruction evaluates each application to determine whether the student has met all requirements for admission to field practicum (Social Work GPA of 2.40 and senior status) 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 information to aid students in completing the social work major. Students must purchase a revised handbook at the beginning of fall semester as long as they are enrolled in a social work program at SDSU. Handbooks are on sale at the SDSU Bookstore 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, 370, and three units selected from Social Work 400, 410, 420, 430, or 496.

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 in residence at San Diego State University.

## Courses (swork)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## SWORK 110. Social Work Fields of Service (3) I, II

Fields of services in which social workers perform professional roles. Focus on social work approach to intervention in practice and policy arenas.

## SWORK 120. Introduction to Social Work and Social Welfare (3) I, II

Two lectures and three hours of fieldwork.
Orientation to field of social work. Develop understanding of social work principles, goals, values, and methods through readings and class discussion. An unpaid assignment in an agency setting is required. Scheduling is flexible.

## SWORK 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)

## SWORK 350. Cultural Pluralism (3) [GE] 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.

## SWORK 360. Perspectives on Human Behavior and the Social Environment <br> (3) [GE] 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.

## SWORK 361. Human Behavior Across the Life Span (3)

Prerequisites: Social work major and junior standing.
Psycho-social, biological, cultural and environmental influences on individual growth and development and how knowledge is utilized by social work generalist practitioners in assessment and intervention.

## SWORK 370. 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. (Formerly numbered Social Work 370A.)
SWORK 381. Practice Skills Micro (3) I, II
Prerequisites: Completion of social work preparation for the major. Junior standing.

Micro skills within overall generalist practice framework. Written and verbal communication, interviewing, assessment with individuals and small groups.

## SWORK 382. Practice Skills Macro (3) I, II

Prerequisite: Completion of social work preparation for the major. Junior standing.

Development of social work practice skills at macro level. Written and verbal communication needs assessment and resource development with organizations and communities.

## SWORK 400. Social Work Practice: Child Welfare (3) I, II <br> Prerequisite: Social Work 370.

Problems of children and supportive, supplementary and substitute social services which have been developed to meet these needs.
SWORK 410. Social Work Practice: Family Issues (3) I, II
Prerequisite: Social Work 370.
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.

## SWORK 420. Aging and the Social Services (3) I, II

Prerequisite: Social Work 370.
Contemporary status, social problems and needs, and developmental theories of the elderly population. Social services delivery system which serves the elderly.

SWORK 430. Alcohol and Other Drug Problems: Prevention and Intervention (3) I, II
Prerequisite: Upper division standing.
Alcohol and other drug issues related to individuals, groups, and society. Concepts include preventive methods, secondary prevention, self-help groups, models of treatment, prevention strategies in communities, and overview of alcohol and drug policies.
SWORK 483A. Generalist Social Work Practice I (3) I, II
Prerequisites: Completion of social preparation for the major, 300level courses required for major, and concurrent registration in Social Work 489A.

Integration of social work theory, principles, and practice techniques.
SWORK 483B. Generalist Social Work Practice II (3) I, II
Prerequisites: Social Work 483A, 489A, and concurrent registration in Social Work 489B.

Integrating seminar with emphasis on macro generalist practice theory, principles, and methods.

## SWORK 489A-489B. Field Experience in Social <br> Work (3-9, 3-9) Cr/NC I, II

Prerequisites: Completion of all 300-level social work courses; Social Work 381 and 382 with a grade of $C$ or better and consent of instructor; 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.

## SWORK 491. Methods of Social Work Research (3) I, II

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.

## SWORK 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.

## SWORK 497. Investigation and Report (3) I, II

Prerequisite: Consent of instructor.
Analysis of special topics in social welfare.
SWORK 499. Special Study (1-3) Cr/NC I, II
Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

UPPER DIVISION COURSE

## (Also Acceptable for Advanced Degrees)

## SWORK 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 <br> TELEPHONE: 619-594-5449 / FAX: 619-594-1325 <br> E-MAIL: msannwal@mail.sdsu.edu <br> http://www-rohan.sdsu.edu/dept/sdsusoci/index.html

## Faculty

Emeritus: Bloomberg, Buck, Chandler, Cottrell, DeLora, El-Assal, Emerick, Gillette, Hough, Ima, Kirkpatrick, Milne, Preston, Sandlin, Scheck, Schulze, Sorensen, Stephenson, Wendling, Werner, Winslow, Wood
Chair: Gay
Professors: Finch, Gay, Kolody, Liu, Wong, Zhang
Associate Professors: Choi, Esbenshade, Ojeda, Pershing, Sargent
Assistant Professors: Johnston, McCall, Roberts
Lecturer: Clanton

## Offered by the Department

Master of Arts degree in sociology.
Master of Science degree in criminal justice and criminology. (Jointly with the College of Professional Studies and Fine Arts.)
Major in sociology with the B.A. degree in liberal arts and sciences.
Minor in sociology

## The Major

Sociology is the study of human social behavior. Among other things, it includes the study of intimate personal relationships to largescale social institutions which constitute societies and world systems; the shared cultural beliefs which hold societies together and make life meaningful; the cleavages of race, class, gender, and ethnicity and the inequalities and conflicts associated with them; and the causes and consequences of crime and other forms of social deviance.

While the sociology department offers a wide variety of courses, the focus of its curriculum is community issues. Communities consist of networks of personal relationships that underlie the large scale organizational and institutional structures that constitute societies. These social ties constitute the power resources - or "social capital" through which things get done. They provide a kind of interpersonal glue that creates social cohesion and enables people within organizations and institutions to form coalitions, initiate processes for social change, and consolidate power resources in seeking to change social structure.

A bachelor's degree in sociology provides an excellent liberal arts foundation for embarking on a wide range of career paths. A major in sociology provides the graduate with the skills necessary to work effectively with groups of people. Some possible areas of employment are public and private agencies, college settings, publishing, businesses, research facilities, human resources, human services, corrections, local/state/federal governments, health facilities. The degree also prepares students to enter graduate programs in sociology, teaching, law, and public health, to name a few.

## Impacted Program

The sociology major is an impacted program. To be admitted to the sociology major, students must meet the following criteria:
a. Complete with a grade of C or higher: Sociology 101, 150, 201, 250, and three units from the following one-unit courses taught through the Social Science Research Laboratory: Social Science 201A (required) and Information and Decision Systems 180 or any two units selected from Social Science 201B
through 201J. Note: Statistics 119 or 250, or Biology 215, will be accepted in lieu of Sociology 201. These courses cannot be taken for credit/no credit (Cr/NC);
b. Have a cumulative GPA of 2.50 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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, 250, and three units from the following one-unit courses taught through the Social Science Research Laboratory: Social Science 201A (required), and Information and Decision Systems 180 or any two units selected from Social Science 201B through 201J. Note: Statistics 119 or 250, or Biology 215, will be accepted in lieu of Sociology 201. (15 units)

These prerequisite courses may not be taken $\mathrm{Cr} / \mathrm{NC}$. The minimum grade in each class is $C$ or higher.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(\mathrm{W})$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. All majors must complete the core requirements and the requirements for one of five areas of specialization.

Core requirements (12 units) should be completed before courses in the area of specialization:

## Sociology 401

Sociology 406, 407, or 408
Sociology 410 or 412
Sociology 430 or 433

Areas of specialization (12 units)
(a) Community Structure and Institutions

Sociology 335, 338, 421, 436, 480 (with approval of undergraduate adviser), 490, 531, 537, 539.

## (b) Inequalities

Sociology 320, 352, 355, 433, 480 (with approval of undergraduate adviser), 481, 490, 496, 555.
(c) Diversity and Change

Sociology 320, 350, 355, 450, 456, 457, 480 (with approval of undergraduate adviser), 490, 522, 555.

## (d) Crime and Control

Sociology 352, 442, 443, 444, 445, 480 (with approval of undergraduate adviser), 490, 543.

## (e) Microsociology

Sociology 310, 320, 412, 436, 441, 480 (with approval of undergraduate adviser), 490.
Electives (3 units): One three unit upper division course in sociology.

## Sociology Minor

The minor in sociology consists of a minimum of 18 units to include Sociology 101 and either 150, 201, or 250; three units selected from Sociology 401, 406, 407, 408, 410, 430, or 433; six units selected from one of the areas of specialization under the major, and three elective units from among other upper division courses in the department. Note: Economics 201, Political Science 201, Statistics 119 or 250 will be accepted in lieu of Sociology 201.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence 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 satisfied the Graduation Writing Assessment Requirement. Interested students should consult with the undergraduate adviser in the Sociology Department.

## Courses (soc)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

SOC 101. Introductory Sociology:The Study of Society (3) [GE] I, II
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.

## SOC 150. Introduction to Social Problems (3) I, II

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.

## SOC 201. Elementary Social Statistics (3) [GE] I, II

Prerequisites: Course in intermediate algebra. Sociology 101; satisfaction of the Entry Level Mathematics requirement; and qualification on the Mathematics Departmental Placement Examination, Part IA.

Basic statistical techniques in sociology. Tables and graphs, measures of central tendency and variability, correlations, cross-classification, and introduction to multivariate analysis, sampling and statistical inference. Computer applications may be included. Students with credit or concurrent registration in the following lower division statistics courses will be awarded a total of four units for the two (or more) courses: Sociology 201; Administration, Rehabilitation and Postsecondary Education 201; Biology 215; Civil Engineering 160; Economics 201; Political Science 201; Psychology 270; Statistics 119, 250.

## SOC 250. Introduction to Social Research (3) I, II

Prerequisites: Sociology 201 and three units from Social Science 201A (required), and any two units selected from Social Science 201B through 201J.

Methods of sociological analysis including surveys, participant observation, ethnography, comparative, historical, and content analysis. Methods are linked to sociological theory.

## SOC 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)

## SOC 305. Sociological Laboratory II <br> (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.

## SOC 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 in context of community and society.

## SOC 320. Sex/Gender Roles in American Society (3) [GE]

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Ways femininity and masculinity are constructed through social arrangements associated with interpersonal relations, family, education, occupations, and economic and political systems. How gender relations are portrayed in mass media and how they are accomplished in community life.

## SOC 335. Mass Communication and Popular Culture (3) [GE]

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.

## SOC 338. Sociology of Religion (3) [GE]

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 community and society. Secularization and conversion processes in modern industrial societies.

## SOC 350. Population and Contemporary Issues (3) [GE]

Prerequisites: Sociology 250 with a grade of $C$ (2.0) or better and completion of the General Education requirement in Foundations II.B. Social and Behavioral Sciences required for nonmajors.

Population processes (fertility, mortality, and migration) as they affect and are affected by such contemporary issues as rapid world population growth, environment, urbanization, family, aging, US-Mexico border, and undocumented migration.

## SOC 352. Contemporary Social Problems (3) [GE]

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.

## SOC 355. Minority Group Relations (3) [GE] 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.
SOC 401. Social Theory (3)
Prerequisite: Sociology 101.
Theories of society; classical European and contemporary US theories of modernity and post modernity, and non-Western theories of cultural and economic hegemony. Evolution of modern world system. Practical understanding of sociological tradition.
SOC 406. Intermediate Social Statistics (3)
Prerequisite: Sociology 250 with a grade of C (2.0) or better.
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.

SOC 407. Survey and Experimental Research Methods (3)
Prerequisite: Sociology 250 with a grade of $C$ (2.0) or better.
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.

## SOC 408. Qualitative Research Methods (3)

Prerequisites: Sociology 101 and 250 with a grade of C (2.0) or better.

Ethnographic research methods including interviewing, observation, participant observation, and case studies. Problems in research design; gaining and maintaining rapport; analysis, interpretation, and writing with qualitative data.
SOC 410. Social Psychology: Mind, Self, and Society (3) [GE]
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.

## SOC 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.

SOC 420. Sexuality in Modern Society (3)
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.

## SOC 421. The American Family and Its Alternatives (3) [GE]

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 diverse family arrangements and future prospects.

## SOC 430. Social Organization (3) [GE]

Prerequisites: Sociology 250 with a grade of C (2.0) or better and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Social structure of societies. Historical examination of structure and development of social institutions, communities, and other large scale organizations.

## SOC 433. Wealth, Status, and Power (3)

Prerequisite: Sociology 250 with a grade of $\mathrm{C}(2.0)$ or better.
Social inequality as an institutional process. Patterns of unequal distribution of wealth, power, privilege and prestige, their causes, and impact this has on communities and societies.
SOC 436. Sociology of Health and IIIness (3)
Prerequisite: Sociology 101.
Social, cultural, and political factors in definitions of health, disease, healing, and provision of services. Comparative study of medical practices and organizational structures in America and selected international settings. Emphasis on change, socialization of practitioners, relationships between health related occupations.

## SOC 441. Sociology of Mental Illness

Prerequisite: Sociology 101.
Social, cultural, historical, and political factors involved in definition of "madness" and theories of mental illness in various societies. Review of research about incidence, prevalence, and social epidemiology of mental illness, as a community problem, and its distribution by social class, gender, age, geographical region, and country.

## SOC 442. Sociology of Murder <br> (3)

Prerequisite: Sociology 101.
Characteristics and distribution of murder, including historical and cross-cultural comparisons. Social psychological, structural, cultural and situational explanations of causes and consequences of juvenile, gang, domestic, mass, serial and sexual murders.

## SOC 443. Crime and Society

(3)

Prerequisite: Sociology 101.
Social origins, forms, and functions of criminal law. Sociological theories about causes and consequences of crime. Measurement and distribution of violent crimes, property crimes, victimless crimes, white collar crime, and their impact on communities and society.

## SOC 444. Juvenile Delinquency

(3)

Prerequisite: Sociology 101.
Sociological theories about causes and consequences of juvenile delinquency. Social origins of juvenile justice system, with attention to methods of control and prevention at community and national levels.

## SOC 445. Sociology of Deviance

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.

SOC 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.

SOC 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.

SOC 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.

## SOC 480. Field Internship (3-6)

Prerequisite: Sociology 101.
Supervised field placement of students in community agencies. Practical experiences related to studies within the sociology curriculum. Maximum credit six units.

## SOC 481. Community Poverty Workshop <br> (3)

Prerequisites: Sociology 101 and 480.
Poverty dynamics in San Diego area: labor market, location of jobs and location of poor people, needs of poor and delivery of social services. Working with poor single parent families.

## SOC 490. Senior Honors Thesis (3) I, II

Prerequisites: An upper division writing course offered by the College of Arts and Letters. 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.

## SOC 496. Experimental Topics (1-4)

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.

## SOC 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)

## SOC 522. The Family in Comparative and Cross-Cultural

 Perspectives (3)Prerequisite: Sociology 101. Recommended: Sociology 421.
Comparative study of selected family systems in the past and present. Comparative analysis of major social and demographic changes in marriage and family in post-industrial nations and less developed countries. Cross-cultural comparisons of family arrangements in contemporary America by social classes and racial-ethnic groups.

## SOC 531. Working and Society (3)

Prerequisite: Sociology 101.
Structure and change in labor force, nationally and internationally Social drama of work: self, roles, conflict, subcultures. Includes exploration of student work experiences, workers in the community, literacy, and film depictions of work worlds.

## SOC 537. Political Sociology

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.

## SOC 539. Sociology of Education <br> (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.

## SOC 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.

## SOC 554. United States-Mexico Transborder Populations and Social Change (3)

(Same course as Chicana and Chicano Studies 554.)
Prerequisite: Sociology 101. Recommended: Chicana and Chicano Studies 355 and/or Sociology 350.

Sociology of the population at the United States-Mexico border region. Demographic dynamics and social change in border communities. International migration and transmigration. Transborder families and transnational families. Gender systems and women's reproductive health in border communities.

## SOC 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.

## SOC 596. Current Topics in Sociology (1-3)

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.

SOC 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

## Faculty

Emeritus: Barrera, Case, Castro (Castillo), Christensen, Head, Jiménez-Vera, Kish, Lemus, O'Brien, Segade, Silverman, Talamantes, Weeter, Young
Interim Chair: Frantz
Professors: Hidalgo, Robinson, Wilson
Associate Professors: Angelelli, Godoy, Martín-Flores
Assistant Professors: Moyna, Múzquiz-Guerreiro, Rosenberg, Strejilevich, Zabaleta

## 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.
Major in European studies, with emphasis in Spanish. See European Studies.
Major in international business, with emphasis in Spanish.
See International Business.
Minor in Spanish.
Certificate in translation studies.
Certificate in court interpreting
(available at Imperial Valley Campus only).

## 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 Spanishspeaking 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.

## Impacted Programs

The majors in Spanish and Spanish in preparation for the single subject teaching credential are impacted programs. To be admitted to the Spanish major, students must meet the following criteria:
a. Complete with a grade of C or higher: Spanish 202 and 212 (or 282). These courses cannot be taken for credit/no credit (Cr/ NC ). These courses are automatically waived for native speakers of Spanish who have a high school diploma or equivalent from a country whose language of instruction is Spanish. International Baccalaureate or Advanced Placement credit for Spanish 202 and 212, or Advanced Placement credit for Spanish 405A and 405B will satisfy this requirement;
b. Have a cumulative GPA of 2.50 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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 52 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, 103, 202, 211, and 212. Spanish 281 replaces 103 and 211 and Spanish 282 replaces 202 and 212 for U.S. Hispanics. Spanish 202 and 212 (or 282) must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). These courses are automatically waived for native speakers of Spanish who have a high school diploma or equivalent from a country whose language of instruction is Spanish. See adviser. (6-22 units)

Language Requirement. The language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(W)$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

International Experience Requirement. All Spanish majors are required to complete an approved study abroad program in a Span-ish-speaking country consisting of a minimum of six units (90 hours). To fulfill the International Experience Requirement, Spanish majors must enroll in a study abroad program approved by the department. Participation in other study abroad programs without the written approval of the department will not meet the international experience requirement for the major.

Major. A minimum of 30 upper division units taught in Spanish to include Spanish 301*, 302*, 350, 504; Spanish 340 or 341 or 342; Spanish 448 or 549; six units selected from Spanish 405A, 405B, 406A, 406B; and two electives ${ }^{+}$selected from 300- to 500-level Spanish courses. At least 15 upper division units for the major must be taken in residence through coursework offered by or sponsored by the SDSU Spanish department or by the CSU International Programs. Students who have successfully completed courses for upper division credit may not receive credit for lower division courses.

[^32]
# Spanish Major <br> In preparation for the Single Subject Teaching Credential in Foreign Languages <br> With the B.A. Degree in Liberal Arts and Sciences <br> (Major Code: 11051) 

No new students will be accepted effective July 1, 2006. Students declared in this major prior to July 1, 2006, will have until June 2010 to complete the major to qualify for the subject matter waiver of the CSET examination. Contact the department for additional information.

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, 103, 202, 211, and 212. Spanish 281 replaces 103 and 211 and Spanish 282 replaces 202 and 212 for U.S. Hispanics. Spanish 202 and 212 (or 282) must be completed with a grade of C or higher and cannot be taken for credit/no credit ( $\mathrm{Cr} / \mathrm{NC}$ ). These courses are automatically waived for native speakers of Spanish who have a high school diploma or equivalent from a country whose language of instruction is Spanish. See adviser. (6-22 units)

Language Requirement. The language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses $(\mathrm{W})$ with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

International Experience Requirement. All Spanish majors are required to complete an approved study abroad program in a Spanishspeaking country consisting of a minimum of six units ( 90 hours). To fulfill the International Experience Requirement, Spanish majors must enroll in a study abroad program approved by the department. Participation in other study abroad programs without the written approval of the department will not meet the international experience requirement for the major.

Major. A minimum of 30 upper division units taught in Spanish to include Spanish 301*, 302*; six units selected from Spanish 405A, 405B, 406A, 406B; Spanish 340 or 341 or 342; Spanish 448; Spanish 350 and 561; two electives+ from 300- to 500-level Spanish courses. At least 15 upper division units for the major must be taken in residence through coursework offered by or sponsored by the SDSU Spanish department or by the CSU International Programs. Students who have successfully completed courses for upper division credit may not receive credit for lower division courses.

[^33]
## Spanish Minor

The minor in Spanish consists of a minimum of 18-19 units taught in Spanish, at least 12 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. At least six upper division units for the minor must be taken in residence through coursework offered by or sponsored by the SDSU Spanish department or by the CSU International Programs.

## Certificate in Translation Studies

The Department of Spanish and Portuguese Languages and Literatures offers a Certificate in Translation Studies. The certificate requires 12 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 Rhetoric and Writing Studies 305W (or pass the Writing Proficiency Assessment with a score of 10 or above), 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 12 units to include Spanish 491, 492, 493, and three units from Spanish 307, 495, 497, or either 499 or 596 when offered with appropriate certificate-related content.

Upon completing the 12 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. Up to nine units in the certificate program may be counted toward the major in Spanish and six units may be counted toward the minor in Spanish.

## Certificate in Court Interpreting

## (Imperial Valley Campus)

The Imperial Valley Campus offers a Certificate in Court Interpreting. The certificate requires 12 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 Rhetoric and Writing Studies 305W (or pass the Writing Proficiency Assessment with a score of 10 or above), 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 12 units to include Spanish 491, 492, 493, and 499 (when offered as a translation-court interpreting practicum).

Upon completing the 12 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.

## Language Requirement for the

## B.A. Degree in Liberal Arts and Sciences

Students electing the study of Spanish to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Spanish 103 or the equivalent level of achievement. The usual sequence of coursework is Spanish 101, 102, and 103. 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 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 or five college quarters, thus fulfilling the 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.

## Advanced Placement in Spanish*

1. Students scoring a 3 on the Spanish Language Advanced Placement Examination will receive 6 units of academic credit for Spanish 103 and 211. The continuation placement level with this score is Spanish 202 and/or 212. Credit will not be awarded for numbered Spanish courses (101, 102, 281).
2. Students scoring a 4 or 5 on the Spanish Language Advanced Placement Examination will receive 6 units of academic credit for Spanish 202 and 212. The continuation placement level with these scores is Spanish 301 or 381. Credit will not be awarded for lower division Spanish courses (101, 102, 103, 211, 281, or 282).
3. Students scoring a 3, 4, or 5 on the Spanish Literature Advanced Placement Examination will receive 6 units of academic credit for Spanish 405A and 405B. The continuation placement level with these scores is Spanish 301 or 381 . Credit will not be awarded for lower division Spanish courses.

## * AP credit automatically clears the language requirement.

## International Baccalaureate

Students with the International Baccalaureate in Spanish will be awarded six units of Spanish equal to credit in Spanish 202 and 212. International Baccalaureate students will not receive duplicate credit for Advanced Placement in Spanish scores nor for enrollment in any lower division Spanish courses.

## Courses (SPAN)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

Native speakers of Spanish will not receive credit for taking lower division courses in Spanish except with advance approval from the department.

All lower division courses in Spanish are taught in Spanish.
No credit will be given for lower division courses taken after successfully completing any upper division Spanish course.

No credit will be given for Spanish 101, 102, 103, 202, 301 taken out of sequence.

## SPAN 101. Introduction to Spanish I (4) [GE]

Four lectures 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, 103, 202, 281, 282, 301, or a higher numbered Spanish course.

## SPAN 102. Introduction to Spanish II (4) [GE]

Four lectures 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 103, 202, 281, 282, 301, or a higher numbered Spanish course.

SPAN 103. Introduction to Spanish III (4) [GE]
Four lectures plus laboratory.
Prerequisite: Spanish 102.
Continuation of Spanish 101 and 102. Not open to students who have completed five years of high school Spanish unless the fifth course was completed five or more years ago. Not open to students with credit in Spanish 202, 281, 282, 301, or a higher numbered Spanish course.

## SPAN 202. Intermediate (4) [GE] I, II, S

Prerequisites: Spanish 103 and 211.
Review of selected grammatical features supported by study of cultural materials. Emphasis on written and spoken language. Conducted in Spanish. Not open to students with credit in Spanish 282, 301, or a higher numbered Spanish course.

## SPAN 211. Intermediate Conversation and <br> Reading (3) [GE] 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 103. Not open to students after taking Spanish 281.

## SPAN 212. Intermediate Conversation and

## Writing (3) [GE] I, II, S

Prerequisites: Spanish 103 and 211.
Emphasis on oral communication and intermediate level writing in Spanish. Conducted in Spanish. May be taken concurrently with Spanish 202. Not open to students after taking Spanish 282.

## SPAN 281. Intermediate Spanish for U.S. Hispanics (3) [GE]

Prerequisites: Exposure to Spanish in the home and neighborhood in the U.S.

Introduction to written Spanish: orthography, spelling, basic sentence construction, vocabulary enrichment, complex and compound sentence construction, basic principles of writing. Not open to native speakers (with high school diploma from a Spanish speaking country) or students with credit in Spanish 103, 202, 211, 282, 301, or a higher numbered Spanish course. Replaces Spanish 103 and 211 for Preparation for the Major.

## SPAN 282. Intermediate Spanish for U.S. Hispanics (3) [GE]

Prerequisite: Spanish 281 or score on departmental diagnostic examination.

Continuation of Spanish 281. Not open to native speakers (with high school diploma from a Spanish speaking country) or students with credit in Spanish 202, 212, 301, or a higher numbered Spanish course. Replaces Spanish 202 and 212 for Preparation for the Major.

## SPAN 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.

## SPAN 299. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division courses in Spanish are taught in Spanish unless otherwise stated.

No credit will be given for lower division courses taken after successfully completing any upper division Spanish course.

## SPAN 301. Advanced Conversation and Reading <br> (3)

Prerequisites: Spanish 202 and 212.
Continued development of oral communication and reading comprehension. Review of selected grammatical structures through use of literary and cultural materials. Some writing will be adjunct to reading. Conducted in Spanish. May be taken concurrently with Spanish 302. Not open to students with credit in Spanish 381.

## SPAN 302. Advanced Conversation and Writing <br> (3)

Prerequisites: Spanish 202 and 212.
Advanced practice at oral communication through conversations and public speaking. Practice of written Spanish through advanced composition. Conducted in Spanish. May be taken concurrently with Spanish 301. Not open to students with credit in Spanish 381.

## SPAN 307. Introduction to Commercial Spanish (3)I

Prerequisite: Spanish 301, 302, or 381.
Terminology and forms of business correspondence and documents.

## SPAN 340. Spanish Civilization (3) [GE]

Prerequisites: Spanish 301, 302, or 381; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Spanish culture of the past and present, with emphasis on literature, philosophy, and the arts.
SPAN 341. Spanish American Civilization (3) [GE]
Prerequisites: Spanish 301, 302, or 381; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Spanish American cultures, with emphasis on literature, philosophy, and the arts.

## SPAN 342. Mexican Civilization (3) [GE]

Prerequisites: Spanish 301, 302, or 381; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

The major currents and characteristics of Mexican culture, as expressed through the centuries in literature, philosophy and the arts.
SPAN 350. Advanced Grammar (3)
Prerequisites: Spanish 301 and 302 or 381.
Significant systematic features of modern Spanish grammar. Required for credential applicants.

## SPAN 381. Advanced Spanish for Spanish Speakers (3)

Prerequisite: Spanish 282 or departmental diagnostic placement examination.

Advanced aspects of Spanish grammar (accentuation rules, intonation, and secondary stress), imperfect subjunctive in combination with other tenses, passive voice and impersonal constructions. Advanced composition of summaries, interpretive essays, and basic research papers. Replaces Spanish 301 and 302 for the Spanish major. Spanish 381 not open to students with credit in either Spanish 301 or 302.

## SPAN 391. Spanish Enhancement for Translation and Interpretations (3)

Prerequisites: Spanish 301 and 302, or 381, and 350.
Bridges gap between Spanish for communication and Spanish for work. Acquisition of translation and interpretation skills (active listening, text analysis, anticipation, memory, public speaking).

## SPAN 405A-405B. Survey Course in Spanish Literature (3-3) [GE]

Prerequisites: Spanish 301 and 302 or 381; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Important movements, authors and works in Spanish literature from the Middle Ages to the present.

## SPAN 406A-406B. Survey of Spanish American Literature (3-3) [GE]

Prerequisites: Spanish 301 and 302 or 381; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Reading from representative Spanish American authors during colonial, revolutionary, and modern periods.

## SPAN 448. Spanish Linguistics (3) I, II, S

Prerequisite: Spanish 350.
Structural, historical, and applied Spanish linguistics.

SPAN 491. Introduction to Translation Studies (3) I
Prerequisites: Spanish 350 and satisfaction of the University Graduation Writing Assessment Requirement.

Theoretical grounding and practical problems of literary and nonliterary translation; linguistic and cultural obstacles; literary, legal, commercial, medical, social services lexicons in context.

## SPAN 492. Translation Theory

Prerequisite: Spanish 491.
Historical overview of translation theory. Translation types and conventions. Theoretical considerations of lexical, morphological, verbal, phonic, syntactic, and hermeneutic elements. Cross-language equivalence, fidelity, loss and gain in translation. Criteria for excellence and evaluation. Culture and commerce of translation.

## SPAN 493. Advanced Spanish-English/English-Spanish

Translation (3) I, II
Prerequisites: Spanish 350 and 491.
Practicum involving methods and techniques in translation of legal or government papers, banking documents, and business contracts from Spanish into English and from English into Spanish. Practice in translation of old Spanish into English (deeds, surveys, baptismal records, manuscripts of books).

## SPAN 495. Internship in Translation and Interpretation <br> (3) I, II

Prerequisites: Spanish 491 and consent of instructor.
Students selectively assigned to legal firms, medical facilities, commercial establishments or public offices that deal routinely with English and Spanish translation and interpretation. Students work 15 hours weekly under joint supervision of site coordinators and instructor. Maximum credit six units.

## SPAN 496. Selected Studies in Spanish (3)

Topics in Spanish or Spanish American language, literature, culture, and linguistics. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.
SPAN 497. Advanced Commercial Spanish (3) II
Prerequisites: Six units from Spanish 301, 302, or 381 and Spanish 307.

Terminology and techniques used in commercial transactions, including interpretation and writing of business materials.
SPAN 499. Special Study (1-3) I, II
Prerequisite: Consent of instructor.
Individual study. Maximum credit six units. This course is intended only for students who are currently enrolled in or who already have credit for all upper division courses in Spanish available in any given semester.

## UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)

## SPAN 501. Genre Studies in Spanish Literature (3)

Prerequisites: Spanish 405A-405B.
A specific literary genre: overview of the genre's development in Spanish literature (Spanish novel, short story, theatre) or focus on a narrower period (contemporary narrative, modern poetry). May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

## SPAN 502. Genre Studies in Spanish American Literature

(3)

Prerequisites: Spanish 406A-406B.
A specific literary genre: overview of the genre's development in Spanish American literature (the Spanish American novel, short story, theatre) or focus on a narrower period (vanguardista poetry, the "Boom"). May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

## SPAN 503. Literature of Baja California

Prerequisites: Spanish 406A-406B.
Diachronic overview of Baja California literature in its different genres. Cultural phenomenon of the border nation, in which the Californias are vital.

## SPAN 504. Don Quixote (3)

Prerequisite: Spanish 405A.
A close reading of Cervantes' novel Don Quixote, Parts I and II. (Formerly numbered Spanish 620.)

SPAN 515. Mexican Literature (3)
Prerequisites: Spanish 406A-406B.
Mexican literature from the Romantic period to the present. Special emphasis placed on contemporary era.
SPAN 520. Caribbean Area Countries Literature (3)
Prerequisites: Spanish 406A-406B.
Literature of Caribbean Islands, Central America, Colombia and Venezuela, from colonial period to present. Special emphasis on contemporary era.

## SPAN 549. Spanish Phonetics and Phonology (3)

Prerequisite: Spanish 448.
Sounds of Spanish: consonants, vowels, semivowels, syllabic structure, rhythm, stress. Sound system of Spanish: phonemes and allophones. Main differences between English and Spanish and between regional and social varieties of Spanish. Alternative analytical paradigms. Not open to students with credit in Spanish 449.
SPAN 557. Seminar in Interpretation Issues and Theories (3) II
Prerequisites: Spanish 350, 491; Rhetoric and Writing Studies 305 W with a grade of $B(3.0)$ or better.

Modes and settings of language interpretation. Similarities and differences in principles applicable to court, conference, community, and medical interpreting discussed in terms of type of discourse, interlocutors, institutional, and cultural framework.

## SPAN 561. Methods in Teaching Spanish as a Second Language (3)

Prerequisite: Spanish 350 or 448.
Teaching of Spanish as a second language: contemporary theory and methods. Not open to students with credit in French 561.

## SPAN 572. Spanish American Theatre (3) (Offered only at IVC)

Prerequisites: Spanish 406A-406B.
Principal Spanish American dramatists and movements. Special emphasis on contemporary era.

## SPAN 581. Mexican Sociolinguistics (3)

Prerequisites: Spanish 350 and 448
Sociolinguistic phenomena occurring in Mexico from pre-Columbian times to the present. Language diversity before 1521 and throughout the colony; language contact and bilingualism; language policy and loss of indigenous languages. Emergence of Spanish as the national standard code in the nineteenth century. Regional dialects of Mexican Spanish.
SPAN 582. Sociolinguistics of U.S. Spanish (3)
Prerequisites: Spanish 350 and 448.
Contact of Spanish and English in the U.S. Southwest from 1848 to the present. Spanish language loss in the nineteenth century. Bilingualism in urban and rural communities; language maintenance and shift in the twentieth century. Language attitudes and bilingual education. Varieties of Spanish in the Southwest, the Northeast, and Florida.

## SPAN 594A. Consecutive English/Spanish Interpretation (3)

Prerequisite: Spanish 350 or 391.
Consecutive interpretation techniques focusing on current events to include notetaking technique for interpreters, preparation for meetings, language register, active listening, structure of a speech, abstracting meaning, sight translation in the booth.
SPAN 594B. Simultaneous English/Spanish Interpretation (3)
Prerequisite: Spanish 594A with a grade of $\mathrm{B}(3.0)$ or better.
Prerequisite: Spanish 594A with a grade of B (3.0) or better.
Simultaneous interpretation techniques focusing on current events. Simultaneous, whispered, and relay interpretation, preparation for meetings, language register, listening, structure of a speech, abstracting, sight translation in the booth.
SPAN 596. Selected Studies in Spanish (3)
Prerequisite: Spanish 302 or 381.
Topics in Spanish or Spanish American language, literature, culture and linguistics. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to the Graduate Bulletin.

# Special Education 

## OFFICE: North Education 70

TELEPHONE: 619-594-6665
http://edweb.sdsu.edu/sped/sped.html

Accredited by the California Commission on Teacher Credentialing.

## Faculty

Emeritus: Brady, Cegelka, Doorlag, Forbing, Lynch, McClard
Chair: Graves
Professors: Graves, Hall, Kitano, Lewis
Associate Professors: Alvarado, Valles
Assistant Professors: Johnson, Kraemer, McIntosh, Qian

## Offered by the Department

Master of Arts degree in education.
Education specialist credentials in special education.
Early childhood special education.
Mild/moderate disabilities.
Moderate/severe disabilities.
Physical and health impairments.
Certificate in developing gifted potential (refer to the Graduate Bulletin).
Certificate in early childhood special education (refer to the Graduate Bulletin).

## Courses (SPED)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## UPPER DIVISION COURSES (Intended for Undergraduates)

## SPED 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.

## SPED 450. Classroom Adaptations for Special Populations (2)

Strategies for adapting curriculum, differentiating instruction, meeting social and behavioral needs, and modifying assessments for students with disabilities and/or gifted and talented students in general education classrooms. Meets Standard 14 requirements for preliminary multiple and single subject teaching credentials.

## SPED 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 exceptionalities.

SPED 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.

## SPED 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)

## SPED 500. Human Exceptionality (3) I, II, S

Historical, philosophical, and legal aspects of special education that affect identification and programming for diverse learners with exceptionalities. Characteristics of individuals with special needs and implications for adapting living and learning environments. Meets special education mainstreaming requirement for all basic teaching credentials.

## SPED 501. Typical and Atypical Learning Processes (3)

Prerequisites: Credit or concurrent registration in Special Education 500; concurrent registration in Special Education 502.

Theory, research, and processes in learning in relation to individuals with disabilities. Foundations of learning, development, and intervention.

## SPED 502. Field Experiences in General and Special Education (1)

Three hours of observation/ participation per week.
Prerequisites: Concurrent registration in Special Education 501.
Observation and participation in general and special education classrooms and related school activities for students with disabilities

## SPED 505. Educational Services for Students with Serious

 Emotional Disturbance (1)Prerequisite: Admission to credential program.
Educational needs and services for students with serious emotional disturbance. Classroom interventions and procedures.

## SPED 508. Characteristics and Identification of Students Who are Gifted and Talented (3)

Historical and theoretical foundations, alternative and critical perspectives, characteristics and needs, identification models for a diverse society.

## SPED 510. Adapting Communication Systems for Students with Severe Disabilities (1)

Prerequisites: Admission to credential program.
Adaptations of communications and communication systems for students with disabilities. Educational strategies that special education teachers can use to augment classroom communications. Alternative approaches to communication for students with moderate/ severe disabilities.

## SPED 524. Characteristics of Students with Mild/Moderate

 Disabilities (3) IPrerequisite: Special Education 500.
Historical and philosophical perspectives of programs related to students with mild/moderate disabilities. Research on educational programs, curricular approaches, and characteristics.

## SPED 525. Characteristics of Students with Moderate/Severe Disabilities (3) I

Prerequisite: Special Education 500.
Historical and philosophical perspectives of programs related to students with moderate/severe disabilities. Research on educational programs, curricular approaches, and characteristics with emphasis on services in context of school reform.

## SPED 526. Characteristics and Education of Students with Physical, Health, and Sensory Impairments (3)

Prerequisite: Special Education 500.
Historical and philosophical perspectives, characteristics, needs, and supports for individuals with physical, health, and sensory impairments in educational, home, and community settings. Implications of health concerns for programming.
SPED 527. Special Education in a Pluralistic Society (3)
Prerequisite: Credit or concurrent registration in Special Education 500.

Historical and philosophical perspectives of cultural pluralism in special education and programs related to diverse students with disabilities. Research on curricular approaches and instructional needs. Sociocultural aspects related to disability, race, ethnicity, gender, and language.

## SPED 528. Young Children with Disabilities and Their Families (3)

Prerequisite: Special Education 500.
Characteristics, needs, and educational programs and services for infants, toddlers, and preschoolers with disabilities and their families. Legislative requirements, models of service delivery, recommended practices, and family diversity.

## SPED 530. Issues in Autism (2) I

Definition, etiology, assessment, and instructional practices used to address autism. Historical and current issues.

## SPED 534. Classroom Assessment of Students with

 Mild/Moderate Disabilities (3)Prerequisite: Admission to credential program.
Classroom assessment in general and special education for students with mild/moderate disabilities. Curriculum-based data collection strategies. Influences of cultural and linguistic diversity, and implications for curricular and instructional adaptations.

## SPED 553. Behavioral Strategies and Supports for Students with Disabilities (3)

Prerequisites: Special Education 500 and 501.
Positive behavioral supports for students with disabilities in general and special education settings. Current theories and programs in functional assessment and behavioral change. Applications in educational and community environments with diverse students.

## SPED 560. Applications of Technology for Individuals with

 Disabilities (3) I, IIPrerequisite: Special Education 500.
Educational applications of current technologies for learners with disabilities. Selection, modification, and classroom use of technologies to improve or bypass physical, sensory, communicative, learning, and social limitations.

## SPED 570. Individualized Special Education Program Plans

Prerequisite: Concurrent registration in Special Education 980.
Components of individualized education program plans, individualized family service plans, and individualized transition plans. Goals, objectives, and outcomes for program planning. Legal and ethical considerations.

## SPED 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, Language, and Hearing Sciences 

OFFICE: Speech, Language, and Hearing 118<br>TELEPHONE: 619-594-6774<br>FAX: 619-594-7109

In the College of Health and Human Services


#### Abstract

Accredited in speech-language pathology by the American Speech-Language-Hearing Association, currently an approved candidate for accreditation in audiology by the American Speech-Language-Hearing Association, and in the education of the deaf by the Council on Education of the Deaf.


## Faculty

Emeritus: Allen, Christensen, Davies, Earnest, Kopp, Nichols, Riedman, Seitz, Thile, Williams
Interim Director: Wulfeck
Professors: Cheng, Emmorey, Gutierrez-Clellen, Kramer, Newhoff, Shapiro, Thal, Wulfeck
Associate Professors: Barlow, Evans, Love-Geffen, Mackersie
Assistant Professors: Dreisbach Hawe, Torre, III
Lecturers: Adams, Branch, Dorricott, Fischer, Georgeson, Gershwind, Kotas, Lopes, Ramsay, Roth-Abramson, Smith
Adjunct: Kryter, Singh

## Offered by the School

Doctor of Philosophy degree in language and communicative disorders. Doctor of Audiology.
Master of Arts degree in speech, language, and hearing sciences.
Major in speech, language, and hearing sciences with the B.A. degree in liberal arts and sciences.
Certificate in bilingual speech-language pathology (refer to the Graduate Bulletin).
Clinical-rehabilitative services credential.
Education specialist for the deaf and hard of hearing 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 persons with speech, language, and hearing disorders. The School of Speech, Language, and Hearing Sciences is committed to preparing speech-language-hearing professionals to meet the challenges of a racially, ethnically, and linguistically diverse society.

The bachelor's degree serves as the basis for graduate and professional study in speech, language, and hearing sciences. There are no employment opportunities for holders of the bachelor's degree. A master's degree, national certification and state licensure or school credential 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 speech, language, and hearing sciences majors cover a set of general studies in early coursework (19 units) before specialization (36 upper division units). Students interested in the speech, language, and hearing sciences 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 master's degree is an advanced degree for those wishing to work professionally as a speech-language pathologist, speech and hearing scientist, and/or deaf educator. A professional doctorate is required for those wishing to work professionally as an audiologist.

Positions in speech, language, and hearing sciences are available in many public and private settings working with persons with speech, language, and hearing, deaf-blind disorders. 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.

## Speech, Language, and Hearing Sciences Major Honors

The School of Speech, Language, and Hearing Sciences formally recognizes exceptional undergraduate students in the program and encourages them to engage in research in the field. Students with a GPA of 3.5 or higher will be eligible to apply for admission to the school's honors program during the fall semester of their junior year.

Application. Interested students must complete an application that will be reviewed by the school's honors adviser who will make a recommendation to the admittance for each applicant. Once admitted to the program, honors students will begin their official program during the spring semester of their junior year. The program will take $1-1 / 2$ years to complete. Each student will be required to maintain a GPA of 3.5 or higher and show evidence of progress through the honors program.

Faculty Mentor. Each student will select a research mentor (faculty sponsor) by the end of the junior year. The mentor will help the student select a program of study for the senior year. This will lead to a formal research prospectus for the honors project which will be due to the mentor and the honors adviser by October 1 of the student's senior year.

Honors Project. The student will conduct a research project and write up a formal honors report to be submitted to the research mentor and honors adviser at the end of the spring semester of the senior year. Each student will present the honors research at a school symposium at that time. The honors research must comply with all Human Subjects IRB regulations.

Requirements. Speech, Language, and Hearing Sciences 491 during the spring semester of the student's junior year and Speech, Language, and Hearing Sciences 492A and 492B during the fall and spring semesters of the senior year, respectively. No more than three units of honors courses may apply towards the required 29 units for the speech, language, and hearing sciences undergraduate major.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Speech, Language, and Hearing Sciences 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 68 units in speech, language, and hearing sciences courses can apply to the degree.

A minor is not required with the major.
Preparation for the Major. Speech, Language, and Hearing Sciences 106, 159; Biology 100; Psychology 101 and 260; Psychology 270 or Sociology 201 (or equivalent statistics course). Students in Education of the Deaf are also required to take Speech, Language, and Hearing Sciences 259, 289; Exercise and Nutritional Sciences 241A, 241B; and Mathematics 210. (19-32 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. Students elect to follow one of three tracks for the major: (a) Audiology, (b) Education of the Deaf, or (c) Speech-Language Pathology. Within these three tracks, requirements for the speech, language, and hearing sciences major are as follows:
(a) Audiology. Speech, Language, and Hearing Sciences 300, 305, 320, 321, 340, 340L, 511, 512, 513, 580, and six units selected from Speech, Language, and Hearing Sciences 350, 491 or 492A, 499, 514, 595; Biology 321, 336; Counseling and School Psychology 400. (36 units)
(b) Education of the Deaf. Speech, Language, and Hearing Sciences 300, 305, 320, 321, 340, 340L, 350, 357 (2 units), 511, 513, 550, 558; Special Education 500, 501, 502. (42 units)
(c) Speech-Language Pathology. Speech, Language, and Hearing Sciences 300, 305, 320, 321, 340, 340L, 503, 511, 512, 513, 514, 580. (36 units)

Students pursuing a graduate degree should consult the Graduate Bulletin for required undergraduate preparation.

Time Limitation. All courses for the major must be completed within seven years for the granting of the undergraduate degree. Any course completed more than seven years prior to the date on which all requirements for the degree are completed cannot be used to satisfy unit requirements for the degree. Exceptions for individual courses must be approved by the department and filed with the Office of Advising and Evaluations.

## Credentials

The School of Speech, Language, and Hearing Sciences offers academic and practica coursework applicable to two credentials required for working in California public schools: The Clinical-Rehabilitative Services (C-RS) Credential (Credential Code: 00900) and the Education Specialist Credential for the Deaf and Hard of Hearing (Credential Code: 00461).

Applicants to a credential program are required to submit scores from the California Basic Education Skills Test (CBEST) as part of the application for admission to a credential program. Note that the CBEST is given only three or four times each year.

Credential candidates are required to have the Certificate of Clearance (finger printing) prior to beginning the school experience. Candidates should apply for the Certificate of Clearance several months prior to submitting an application to the school for public school practicum placement in order for the certificate to be processed in time for the placement.

## Education Specialist Credential: Deaf and Hard-of-Hearing <br> (Credential Code: 00461)

No new students are being accepted. Contact the school for additional information.

The Education Specialist Credential: Deaf and Hard-of-Hearing is required for persons wishing to teach children and youth who are deaf, hard-of-hearing, or deaf with special needs. The coursework in this special sequence meets the standards of the California Commission on Teacher Credentialing and the National Council on Education of the Deaf.

## Admission Requirements:

1. Formal application to the graduate program in the School of Speech, Language, and Hearing Sciences. Applicants must satisfy the admission requirements for classified graduate standing with a concentration in education of learners who are deaf, hard-of-hearing, or deaf with special needs.
2. Interview with a faculty member in the School of Speech, Language, and Hearing Sciences.
3. American Sign Language proficiency at the intermediate level or higher as assessed by an SDSU-ASL proficiency interview.
4. Passing scores on the MSAT, RICA, and CBEST.

## Program Requirements:

1. Coursework selected from the School of Speech, Language, and Hearing Sciences, and Departments of Policy Studies in Language and Cross-Cultural Education; Special Education.
2. A minimum of 200 hours of supervised clinical practica.
3. A minimum of 300 hours of supervised student teaching in special day and residential school settings.
The credential program involves a total of 56 units. The following courses are required:
Core courses: Speech, Language, and Hearing Sciences 550, 558; Policy Studies in Language and Cross-Cultural Education 600; Special Education 500, 501, 502.
Pedagogy courses: Speech, Language, and Hearing Sciences 655, 657, 668; Policy Studies in Language and CrossCultural Education 601, 650, 651.
Deaf and Hard-of-Hearing courses: Speech, Language, and Hearing Sciences 511, 556, 562, 656, 658, 659, 675, 953.

## Clinical or Rehabilitative Services Credential <br> Language, Speech and Hearing <br> (Credential Code: 00900)

Students desiring to work with pupils with speech-language and hearing impairments on an itinerant or pull-out basis must complete the Clinical-Rehabilitative Services (C-RS) Credential for Language, Speech and Hearing (LSH). A master's degree in speech, language, and hearing sciences is required of all candidates graduating with a C-RS credential. Candidates for C-RS credential in Language, Speech and Hearing (LSH) must complete the requirements for the Certificate of Clinical Competence (CCC) from the American SpeechLanguage Hearing Association and the requirements of California licensure in Language and Speech. See sections on Certificates and Licensure.

## Admission Requirements:

1. Formal application to San Diego State University and to the School of Speech, Language, and Hearing Sciences. All applicants for the credential must satisfy the admission requirements of the university and of the school for classified graduate standing and be recommended by the school for admission to the credential program.
2. California Basic Education Skills Test (CBEST) results.
3. Interview with the coordinator of the Language, Speech and Hearing credential.

## Program Requirements:

1. The credential program requires a master's degree in SpeechLanguage Pathology.
2. The following courses are also required: Speech, Language, and Hearing Sciences 525, 541, 546, 618A, 618B, 626A, 626B, 626C, 627, 929, 933. In addition, students must complete at least one of the following courses: Speech, Language, and Hearing Sciences 521, 522, 619, or 676.
3. The program of professional preparation for the C-RS Credential in Language and Speech requires a minimum of 75 semester credit hours, including a minimum of 27 semester credit hours in basic sciences and a minimum of 36 semester credit hours in professional coursework. At least 30 of the 36 semester credit hours must be in courses for which graduate credit is received, and at least 21 of the 30 graduate semester credit hours must be in the professional area for which the credential is sought. The candidate must complete a minimum of 25 supervised observation hours and 350 clinical contact hours including 50 clock hours in each of three types of clinical setting. This credential also requires that a minimum of 100 clock hours be completed in the school setting. See the section on Certificates and the Credential Coordinator for additional information.

## 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 a master's degree for speech-language pathology and a professional doctorate for audiology and specialized clinical experiences. The applicant must pass a national examination in the area for which the certificate is sought and complete a Clinical Fellowship (following approval of academic coursework and clinical practica). Consult an adviser in the area in which certificate is desired.

## 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 the Deaf for more information. Education of the Deaf is a graduate level program.

## 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 non-public school settings and some public school settings. The Speech Pathology and Audiology Examining Committee which operates within the California State Board of Medical Quality Assurance requires a master's degree or equivalent in speech, language, and hearing sciences in the area (Speech Pathology or Audiology) in which the license is to be granted, 300 clock hours of supervised clinical experience, a national examination, and nine months of full-time supervised work experience (Required Professional Experience). For audiology, the fourth year externship satisfies the Required Professional Experience. 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 Speech, Language, and Hearing Sciences $340 \mathrm{~L}, 357,525,541,556$ are required to purchase professional liability insurance.

## Courses (SLhs)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

No credit will be given for Speech, Language, and Hearing Sciences 159, 259, 289 taken out of sequence.

## SLHS 106. Communicative Disorders (3)

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. (Formerly numbered Communicative Disorders 106.)

## SLHS 159. American Sign Language I (4) [GE]

Introduction to American Sign Language syntax, semantics, and use. ASL literature and the culture of the deaf community. Beginning level communication competence in ASL. Not open to students who have completed three (or more) years of high school American Sign Language classes unless the third course was completed five or more years ago. (Formerly numbered Communicative Disorders 159.)

## SLHS 259. American Sign Language II (4) [GE]

Prerequisite: Speech, Language, and Hearing Sciences 159.
Intermediate level communicative competence in American Sign Language (ASL). Readings include ASL linguistics and deaf culture. Not open to students who have completed four (or more) years of high school American Sign Language classes unless the fourth course was completed five or more years ago. (Formerly numbered Communicative Disorders 259.)

## SLHS 289. American Sign Language III (4) [GE]

Prerequisite: Speech, Language, and Hearing Sciences 259.
Advanced communicative competence in American Sign Language (ASL). Fieldwork within the deaf community is a required component of this course. Not open to students who have completed five (or more) years of high school American Sign Language classes unless the fifth course was completed five or more years ago. (Formerly numbered Communicative Disorders 289.)

## SLHS 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 <br> (Intended for Undergraduates)

## SLHS 300. Introduction to Language Science (3)

Structure, acquisition, processing, and neurological organization of language in typical and disordered communication. (Formerly numbered Communicative Disorders 300.)

## SLHS 305. Hearing and Speech Sciences (4)

Prerequisite: Credit or concurrent registration in Speech, Language, and Hearing Sciences 106.

Concepts of hearing and speech science. Hearing science component to include physical acoustics, anatomy and physiology of auditory system, and psychoacoustics. Speech science component to include speech acoustics. Not open to students with credit in Speech, Language, and Hearing Sciences 205 and 323.

## SLHS 320. Phonetics (3)

Two lectures and three hours of laboratory.
Principles of speech production and practical skills in discriminating and transcribing sounds of various dialects in English and other languages, as well as clinical populations. Competency in IPA broad and narrow transcription, classification of speech sounds, and patterns of speech. (Formerly numbered Communicative Disorders 320.)

SLHS 321. Anatomy, Neurology, and Physiology of Speech
Three lectures and three hours of laboratory.
Prerequisite: Credit or concurrent registration in Speech, Language, and Hearing Sciences 106. Recommended: Psychology 260.

Anatomy and physiology of neural, respiratory, phonological, and articulatory systems related to speech. (Formerly numbered Communicative Disorders 321.)

## SLHS 322. Learning in Communicative Disorders (3)

Understanding how people learn to communicate and understanding differences in learning related to communication disorders. Principles of learning and motivation. Role of diversity in learning. (Formerly numbered Communicative Disorders 322.)

## SLHS 340. Principles of Audiology (3)

Prerequisites: Speech, Language, and Hearing Sciences 305, Psychology 260, concurrent registration in Speech, Language, and Hearing Sciences 340L

Diagnostic audiology procedures: Pure-tone testing, masking, speech recognition testing and imittance. Integration and interpretation of results from the basic audiological test battery. (Formerly numbered Communicative Disorders 340.)

## SLHS 340L. Techniques of Audiometry <br> (1)

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Speech, Language, and Hearing Sciences 340.

Laboratory experience with pure-tone, speech, and immitance audiometric tests. (Formerly numbered Communicative Disorders 340L.)

## SLHS 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 350.)

## SLHS 357. Fieldwork with the Deaf (1-2) Cr/NC

Two hours of activity per unit of credit and one hour of staffing.
Prerequisite recommended: Speech, Language, and Hearing Sciences 159 .

Field observation and participation under supervision in school settings with small groups of hearing impaired youngsters. Maximum credit three units. (Formerly numbered Communicative Disorders 357.)

## SLHS 491. Honors Special Study (2)

Prerequisites: Junior standing and formal admission to speech, language, and hearing sciences honors program.

Current research and methodology in communicative sciences and disorders, with emphasis on faculty research programs in the School of Speech, Language, and Hearing Sciences. (Formerly numbered Communicative Disorders 491.)

## SLHS 492A. Honors Project and Symposium (3) Cr/NC

Prerequisites: Senior standing and admission to speech, language, and hearing sciences honors program.

Preparation of a research project for the honors program. (Formerly numbered Communicative Disorders 492A.)

## SLHS 492B. Honors Project and Symposium <br> Extension (3) $\mathrm{Cr} / \mathrm{NC}$

Prerequisite: Speech, Language, and Hearing Sciences 492A.
Completion and presentation of research project for the honors program. (Formerly numbered Communicative Disorders 492B.)

## SLHS 496. Topics in Speech, Language, and Hearing

 Sciences (1-4)Study of some problem in speech, language, and hearing 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 six units.

## SLHS 499. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

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

## SLHS 503. Low Incidence Communicative Disorders (3)

Prerequisites: Speech, Language, and Hearing Sciences 320 and 321.

Characteristics, etiologies, assessment, and intervention strategies for fluency, voice, and craniofacial/cleft palate disorders. (Formerly numbered Communicative Disorders 503.)

## SLHS 511. Pediatric Aural Rehabilitation (3)

Prerequisites: Speech, Language, and Hearing Sciences 305, 320, 340. Recommended: Speech, Language, and Hearing Sciences 300,357 , and 513.

Theoretical, methodological, and technical issues related to facilitating receptive and expressive communication in individuals who are deaf or hard-of-hearing. Emphasizes multidisciplinary case management of children. (Formerly numbered Communicative Disorders 511.)

SLHS 512. Phonological Acquisition and Disorders (3)
Prerequisite: Speech, Language, and Hearing Sciences 320.
Phonology, phonological development, and phonological disorders as they relate to basic linguistic theory. Concepts considered through critical thinking and problem-solving. (Formerly numbered Communicative Disorders 512.)

## SLHS 513. Language Development and Disorders in <br> Early Childhood (3)

Prerequisites: Speech, Language, and Hearing Sciences 300, 320, 321.

Language and communication development, delay, and disorders as they relate to theory and clinical practice in children from infancy through preschool age. (Formerly numbered Communicative Disorders 513.)

## SLHS 514. Language Development and Disorders in School Age Children and Adolescents (3)

Prerequisites: Speech, Language, and Hearing Sciences 300, 320, 321.

Language development, delay, and disorders as they relate to developmental theory and clinical practice for school-age children from 5 through 18 years of age. (Formerly numbered Communicative Disorders 514.)
SLHS 521. Speech-Language Screening of Children (1)
Four hours of supervision.
Prerequisite: Clinic clearance.
Screening speech and language of children in various community facilities and settings. (Formerly numbered Communicative Disorders 521.)

SLHS 522. Speech-Language Screening of Adults (1)
Four hours of supervision.
Prerequisite: Clinic clearance.
Screening speech and language of adults in various community facilities and settings.

SLHS 524. Clinical Methods in Speech-Language Pathology (2)
Prerequisites: Speech, Language, and Hearing Sciences 512 and Speech, Language, and Hearing Sciences 513 or 514.

Clinical issues, policies, and methods in speech-language pathology. Experience in writing lesson plans and clinical reports. Includes clinical observation to partially fulfill requirements for clinic clearance. May be taken concurrently with Speech, Language, and Hearing Sciences 525. (Formerly numbered Communicative Disorders 524.)
SLHS 525. Clinical Processes (1-2)
Two to four hours of clinical practica and grand rounds attendance once per month.

Prerequisite: Consent of instructor.
Clinical issues, policies, and methods in speech-language pathology. Experience in writing lesson plans and clinical reports. Clinical observation to partially fulfill requirements for certification. Maximum credit five units. (Formerly numbered Communicative Disorders 525.)

## SLHS 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 Speech, Language, and Hearing Sciences 205, 340, 340L. (Formerly numbered Communicative Disorders 540.)
SLHS 541. Hearing Screening of Children (1) $\mathrm{Cr} / \mathrm{NC}$
Three hours of laboratory screening per week.
Prerequisites: Speech, Language, and Hearing Sciences 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 541.)
SLHS 546. Clinical Practice with Aural Rehabilitation (.5)
Two hours of supervision.
Prerequisites: Grade of $C$ or better in Speech, Language, and Hearing Sciences 511 and a minimum of two units in Speech, Language, and Hearing Sciences 525.

Supervised practicum in aural rehabilitation. One unit represents two hours of clinical contact and one hour of staffing per week. (Formerly numbered Communicative Disorders 546.)

SLHS 550. Education of Deaf Children and Youth (3)
Prerequisite: Speech, Language, and Hearing Sciences 350.
Educational programs, services and resources for learners who are deaf; historical background, philosophy, sociological and psychological problems. (Formerly numbered Communicative Disorders 550.)

## SLHS 556. Clinical Practice with Learners Who Are Deaf or Hard-of-Hearing (1)

Two hours of supervision, one hour of staffing per week, and grand rounds attendance once per month.

Prerequisites: Speech, Language, and Hearing Sciences 159, 357; credit in two of the following and concurrent registration in the third: Speech, Language, and Hearing Sciences 511, 513, 562. Admission to clinical practicum includes successful completion of competency examination.

Supervised therapy with representative challenges found in the deaf and hard-of-hearing population. Maximum one unit first semester; maximum credit two units. (Formerly numbered Communicative Disorders 556.)

## SLHS 558. ASL Structure and Acquisition (3)

Prerequisites: Speech, Language, and Hearing Sciences 289 and 350.

ASL phonology, morphology, syntax, and discourse structure, including simple and complex sentence structure, storytelling, and sociolinguistics. Analyzing language samples in ASL. Developing lesson plans to teach ASL to deaf and hard-of-hearing children. (Formerly numbered Communicative Disorders 400.)

## SLHS 562. Oral Communication for Children Who Are Deaf or Hard-of-Hearing (3)

Prerequisite: Speech, Language, and Hearing Sciences 550.
Current methods for developing oral/aural communication skills with learners who are deaf or hard-of-hearing and youth. Differential problems of acquisition of communicative competence. Assessment and intervention procedures for classroom and clinical settings. (Formerly numbered Communicative Disorders 562.)

## SLHS 570. Dysphagia (2)

Prerequisite: Speech, Language, and Hearing Sciences 321.
Measurement techniques and research in dysphagia. Assessment and treatment of dysphagia and swallowing problems in children and adults. (Formerly numbered Communicative Disorders 570.)
SLHS 580. Communication Processes and Aging (3)
Prerequisites: Twelve upper division units in an appropriate major.
Normal and disordered communication processes in the aging. (Formerly numbered Communicative Disorders 580.)

## SLHS 595. Research Practicum (1-3)

Prerequisites: Consent of instructor and approval of school chair.
Participation in a specific research activity under faculty supervision. Maximum combined credit of six units of Speech, Language, and Hearing Sciences 595 and 795. (Formerly numbered Communicative Disorders 595.)

## SLHS 596. Selected Topics in Speech, Language, and Hearing

 Sciences (1-4)Prerequisite: Twelve units in speech, language, and hearing sciences 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

# Statistics 

## In the College of Sciences

## OFFICE: Geology/Mathematics/Computer Science 413

 TELEPHONE: 619-594-6191
## Faculty

Emeritus: Bell, Burdick, Macky, Moser, Park, Romano
Chair: Lesley
Coordinator for Statistics: Levine
Professors: Lui, Steffey
Associate Professors: Fan, Kelly, Levine, Lin
Lecturers: Manchester, McElroy, Noble

## Offered by the Department of Mathematics and Statistics

Master of Science degree in statistics.
Concentration in biostatistics.
Major in statistics with the B.S. degree in applied arts and sciences. Emphasis in actuarial science.
Emphasis in statistical computing.
Minor in statistics.

## The Major

Statistics is the science which studies data - its collection, description, analysis, and interpretation. Almost all modern professions, from economists to engineers and from social scientists to medical scientists, rely on statistics. Statistical methods are used for studying relationships, predicting results, testing hypothesis, and a variety of other purposes.

The Bachelor of Science degree in statistics is designed to provide students with a fundamental understanding of probability and mathematical statistics, a complementary knowledge of basic methods for data collection and inference, and practical computing skills to carry out statistical analyses of problems in many different areas of application.

One option within the major allows students with a strong interest in statistical or biostatistical aspects of a particular science to apply courses in that science to their major. This option should provide the interested student with a good background for employment or graduate work in statistics, biostatistics, or in that science. Emphases in actuarial science and statistical computing enable students to pursue further specializations aligned with professional opportunities in these areas.

Statistics is the discipline at the heart of the scientific method of discovery. Statistical principles are used in designing experiments and surveys to collect information, and statistical procedures are applied to summarize information, draw conclusions, and make decisions.

Because of the broad applicability of their training in statistical reasoning and data analysis, undergraduate majors are prepared for careers in diverse fields - such as biotechnology, environmental science, insurance, industrial manufacturing, and market research - in which the need for professionally trained statisticians is great.

Graduates who seek to acquire additional skills in applied or theoretical statistics may also consider programs of advanced study at the master's or doctoral level. Statisticians with advanced degrees are sought for senior positions in industry and government, as well as teaching positions in secondary schools, community colleges, and universities.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Statistics Major

## With the B.S. Degree in Applied Arts and Sciences

(Major Code: 17021)
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.
Upon entry to the program, the student will be assigned to an undergraduate adviser in statistics. Thereafter, the student will meet with the adviser each semester and discuss his or her academic program. A program of study must be approved by the undergraduate adviser in statistics.

In addition to meeting the requirements for undergraduate standing and the basic requirements for the bachelor of science degree as described in this catalog, the student must complete a Graduation Writing Assessment Requirement and must complete a minimum of 61 units of coursework as described below.

Preparation for the Major. Statistics 119 or 250; Mathematics 150, 151, 245, 252, and 254; Computer Science 106 or 107. (24 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Statistics 350A, 350B, 510, 551A, 551B, 560; six units selected (with the approval of the undergraduate adviser in statistics) from Statistics 325, 496, 520, 570, 575, 596; 12 upper division units in statistics, mathematics (excluding Mathematics 302, 303, 312, 313, 414), computer science, or a science of application (selected with the approval of the undergraduate adviser in statistics).

Master Plan. A master plan of the courses taken to fulfill the major must be approved by the adviser and filed with the Office of Advising and Evaluations.

## Emphasis in Actuarial Science

This emphasis is designed to prepare students for careers in the actuarial profession, applying probability and statistical models to problems of insurance and finance. Actuaries improve financial decision making by evaluating the current financial implications of uncertain future events. Students completing this emphasis would also be well prepared for graduate study in actuarial science or statistics.

Preparation for the Major. Statistics 119 or 250; Accountancy 201; Computer Science 106 or 107; Economics 101, 102; Mathematics 150, $151,245,252,254$. (33 units) The student must complete these courses before being allowed to register for the upper division finance courses.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Statistics 350A, 350B, 551A, 551B, 575; Economics 320, 321; Finance 323, 327; six units from Statistics $325,496,510,520,560,570,596$; three units from Finance 329, 421, 427; Mathematics 580.

Master Plan. A master plan of the courses taken to fulfill the major must be approved by the adviser and filed with the Office of Advising and Evaluations.

## Emphasis in Statistical Computing

Modern day statistics applications require heavy computing for manipulating massive data sets, mining immense databases, and implementing computationally intensive data analytic tools to solve complex scientific problems. This emphasis is designed to prepare students for careers in statistics by providing them with the data analytic and computational machinery needed to excel in all avenues of statistical science during an information age where statistical computing plays a crucial role. Students completing this emphasis would also be well prepared for graduate study in statistical computing and statistics.

Preparation for the Major. Statistics 250, Mathematics 150, 151, 245, 252, 254, Computer Science 107, 108, 205. (30 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 39 upper division units to include Statistics 325, 350A, 510, 551A, 551B, Mathematics 541, 543, Computer Science 310, 320; six units selected (with the approval of the undergraduate adviser in statistics) from Computer Science 501, 503, 505, 514, 520, 550, 553, $558,559,560,575$; six upper division units in statistics, computer science, or a science of application with a heavy statistical computing component (selected with the approval of the undergraduate adviser in statistics).

Master Plan. A master plan of the courses taken to fulfill the major must be approved by the adviser and filed with the Office of Advising and Evaluations.

## Statistics Minor

The minor in statistics consists of a minimum of 15 units in statistics to include Statistics 250 (or equivalent), 350A, 350B or 510, and six units of upper division electives in statistics excluding Statistics 357. For Statistics 550 and 551A, students must satisfy lower division calcuIus and linear algebra prerequisites (Mathematics 151, 252, and 254 as appropriate).

The minor program includes a combination of courses in applied statistical methods, computer-oriented data analysis, probability, and mathematical statistics, which can be tailored to the student's major, academic, or professional interests. For example, business students interested in actuarial science may wish to consider a minor comprising Statistics 350A, 350B, 551A, and 551B. Students in the social, behavioral, and natural sciences who are particularly interested in applications and data analysis may wish to consider a minor comprising Statistics 350A, 350B, 510, and 520.

Students considering a minor in statistics are encouraged to consult with their major adviser and with the minor adviser in statistics. 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 (stat)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

NOTE: Proof of completion of Entry-Level Mathematics requirement required for Statistics 119 and 250: Copy of ELM score or verification of exemption.

## STAT 119. Elementary Statistics for Business (3) [GE] I, II, S

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.

Measures of central tendency and variability, frequency distributions; probability, Bayes theorem, probability distributions (including binomial, hypergeometric, and normal), sampling distributions, confidence intervals, significance testing, regression and correlation. Not open to students with credit in Statistics 250. Students with credit or concurrent registration in the following lower division statistics courses other than Statistics 250 will be awarded a total of four units for the two (or more) courses: Statistics 119; Administration, Rehabilitation and Postsecondary Education 201; Biology 215; Civil Engineering 160; Economics 201; Political Science 201; Psychology 270; Sociology 201.

## STAT 250. Statistical Principles and Practices (3) [GE] I, II

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.

Descriptive statistics, data displays, measures of central tendency and variability, random variables, sampling distribution. Estimation and hypothesis tests for means and proportions, linear regression and correlation. Not open to students with credit in Statistics 119. Students with credit or concurrent registration in the following lower division statistics courses other than Statistics 119 will be awarded a total of four units for the two (or more) courses: Statistics 250; Administration, Rehabilitation and Postsecondary Education 201; Biology 215; Civil Engineering 160; Economics 201; Political Science 201; Psychology 270; Sociology 201.

## STAT 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.

## STAT 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.

## STAT 325. SAS Programming and Data Management (3) I

Prerequisite: Statistics 250 or comparable course in statistics.
Entry, management, and summary of statistical data using SAS programming language. Data structures and manipulation, screen editing, visual displays, macros, related topics.

## STAT 350A. Statistical Methods (3) I

Prerequisite: Statistics 250 or comparable course in statistics.
One- and two-sample hypothesis tests, paired difference tests, tests for variances, analysis of variance. Linear regression and correIation. Chi-square tests. Simple nonparametric tests. Power of hypothesis tests.

## STAT 350B. Statistical Methods (3) II

Prerequisite: Statistics 350A.
Multiple regression, factorial models and nonparametric methods, all with emphasis on applications.

## STAT 357. Probability and Statistics <br> (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.

## STAT 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.

## STAT 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.

## STAT 510. Applied Regression Analysis (3) I

Prerequisite: Statistics 250 or comparable course in statistics.
Methods for simple and multiple regression models, model fitting, variable selection, diagnostic tools, model validation, and matrix forms for multiple regression. Applications of these methods will be illustrated with SAS, SPSS, and/or S-Plus computer packages.

## STAT 520. Applied Multivariate Analysis (3) II

Prerequisite: Statistics 350A or comparable course in statistics.
Multivariate normal distribution, multivariate analysis of variance, principal components, factor analysis, discriminant function analysis, classification, and clustering. Statistical packages will be adapted for data analysis.

## STAT 550. Applied Probability (3) I, II, S

Prerequisites: Mathematics 151 and 254.
Computation of probabilities via enumeration and simulation, discrete and continuous distributions, moments of random variables. Markov chains, counting and queuing processes, and selected topics.

## STAT 551A. Probability and Mathematical Statistics <br> (3) I

Prerequisite: Mathematics 252.
Discrete and continuous random variables, probability mass functions and density functions, conditional probability and Bayes' theorem, moments, properties of expectation and variance, joint and marginal distributions, functions of random variables, moment generating functions. Special distributions and sampling distributions.

## STAT 551B. Probability and Mathematical Statistics (3) II

Prerequisite: Statistics 551A.
Point and interval estimation and hypothesis testing in statistical models with applications to problems in various fields.

## STAT 560. Sample Surveys (3) I

Prerequisite: Statistics 550 or 551A.
Methods for design and analysis of sample surveys with applications to social and biological sciences. Simple random sampling, stratification and clustering, ratio and regression estimators, subsampling, selected topics in survey methodology.

## STAT 570. Stochastic Processes (3)

Prerequisite: Statistics 551A.
Introduction to stochastic processes with selected applications.
STAT 575. Actuarial Modeling (3)
Prerequisite: Statistics 550 or 551A.
Actuarial models and applications of probability and statistics to insurance and other financial risks. Utility theory; risk models, compound processes; survival distributions and life tables; life insurance, annuities and benefits.

## STAT 596. Advanced Topics in Statistics (1-4) I, II

## Prerequisite: Consent of instructor

Selected topics in statistics. 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.

## Teacher Education

## SCHOOL OF TEACHER EDUCATION: Business Administration 255 <br> TELEPHONE: 619-594-6131 <br> FAX: 619-594-7828

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, Bee, Berg, Blanc, Botkin, Burnside, Campbell, Charles, Curry, Duckworth, Elliott, Erickson, Ford, Gast, Gates, Gega, Goodson, Gray, Groff, Hill, Ingmanson, Inskeep, Kaatz, Kendall, Lujan, McCormack, McCoy, Mehaffy, Moreno, Murphy, Nagel, A., Nagel, T., Pehrson, Person, Platz, Reel, Retson, Riggs, Rixman, Ross, R., Shaw, Stautland, Steckbauer, Strand, Strom, Tossas, Wilding, Yesselman
Director: Farnan
Professors: Bezuk, Cornejo, Evans, Farnan, Fearn, Fisher, Flood, Gallego, Grisham, Kelly, Lapp, Mason, Mathison, Mikitka-Gomez, Moss, Neumann (IVC), Pang, Park, Philipp, Ross, P., Treadway, Yerrick
Associate Professors: Branch, Chizhik, E., Frey, Garrison (IVC), Jacobs, Lamb, Mora, Nieto, Ross, D., Santa Cruz, Tran
Assistant Professors: Alger, Cappello, Chizhik, A., Darby, Feiler, Gibson, S., Masarik, Zozakiewicz
Lecturers: Blakeslee, Telfer, Treger

## Offered by the School

Master of Arts degree in education.
Multiple subject preliminary teaching credential.
Reading/language arts specialist credential.
Single subject preliminary teaching credential.
Mathematics specialist certificate (refer to the Graduate Bulletin).

## The Credentials

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 variety of program options, including full-time, part-time, and accelerated models are available to credential candidates. Daytime commitments are required for student teaching placements. 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.

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 grades 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. A part time program is also available. This program provides more flexibility for students who have additional responsibilities. Coursework in this program is offered in the late afternoon and evenings. 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-Preliminary 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 by passing the Multiple Subjects examination of the California Subject Examinations for Teachers (CSET). Must have scores taken within five years prior to recommendation.
5. Successful completion of the Teaching Performance Assessment (TPA).
6. Passing scores on the Reading Instruction Competence Assessment (RICA).
7. 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.
8. Knowledge of health education, including substance abuse and nutrition: Public Health 101 or Health and Human Services 280 or approved equivalent.
9. Demonstrated knowledge of the needs of and methods of providing educational opportunities to individuals with exceptional needs: Special Education 450 or 496.
10. Demonstrated knowledge of computer hardware, software, and applications to educational/classroom use (computer literacy): Educational Technology 470.
11. Verify current training in cardiopulmonary resuscitation (CPR). All candidates for the preliminary credential are required to verify current training in cardiopulmonary resuscitation (CPR). Verification of the CPR training is made through submission of a photocopy of the card issued by the training agency. While many agencies provide CPR training, verification must be made at levels identified by the American Heart Association (AHA) or the American Red Cross (ARC). Candidates pursuing training through agencies other than these will be required to verify the level of training relative to either the AHA or ARC standards either from the data provided directly on their card or on a supplementary letter on letterhead stationery from their training agency (no phone call verifications).
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."

According to SB 2042 legislation, teachers will be able to earn Professional Clear Credentials upon successful completion of induction programs sponsored by their employers and approved by the California Commission on Teacher Credentialing.

## 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 School of Teacher Education, BA-255. Contact the School of Teacher Education for application dates.

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. Registration information and materials for the CBEST are available in the lobby of the Education building. 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 submit passing scores on the California Subject Examination for Teachers-Multiple Subjects (CSET-MS) in order to verify subject matter competency in diversified subjects commonly taught in self-contained classrooms. For the traditional, post-baccalaureate program (see below), test scores must be submitted prior to admission to the program. For the integrated program (see below), state law requires that test scores must be submitted prior to student teaching; check with the program for the deadline. Test scores submitted for verification of subject matter competency are valid for only five years from the date the first subtest was passed and must be valid at the time of recommendation for the credential. Registration information and registration materials are available at the College of Education Advising Office and at
http://www.cset.nesinc.com.
3. Prerequisite Courses. These courses or approved equivalents must be completed with grades of "C," "CR," or higher no more than seven years prior to admission to the Multiple Subject Credential Program. The courses may be in progress at the time of program application. Proof of registration is required to be considered for admission.
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. Health and Human Services 280, "Health Education for Teachers." This course is a prerequisite for applicants.
c. Mathematics 210, "Number Systems in Elementary Mathematics." In lieu of Mathematics 210, candidates may substitute any calculus course taken at the college or university with a grade of credit, "C," or higher.
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 attained a grade point average of at least 2.67 in all baccalaureate and postbaccalaureate coursework or a grade point average of at least 2.85 in the last 60 semester units attempted. Candidates are required to submit official transcripts from all colleges and universities attended and unofficial transcripts for SDSU coursework for GPA calculations.
5. Letters of Recommendation. Candidates must submit two letters of recommendation from individuals who know the candidate well (but are not related by blood or marriage) and who can comment directly on factors such as the candidate's qualifications for a teaching career in a multicultural setting, work or educational experiences, experience teaching or supervising students or other groups of individuals, personal character, and/or potential for success as a teacher. The signed letters may be hand carried and do not need to be confidential or in sealed envelopes, but must be on letterhead stationery (name, address, and phone number of sender included.) If the letters are not on letterhead, the name, address, and phone number of the sender must be typed on the letter.
6. 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.
7. 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. Candidates must submit the application directly to the California Commission on Teacher Credentialing. A copy of the certificate prior to admission must be provided to the School of Teacher Education.
8. Early Field Experience. Candidate must successfully complete a minimum of 30 hours of observation and participation in a "regular" classroom in public elementary schools. This documented through the Early Field Experience Guide - Multiple Subject available in the SDSU Bookstore in the book stacks under "Teacher Education." The guide is also available for downloading from the School of Teacher Education Web site at http://edweb.sdsu.edu/ste/teach.htm.
Either the original or a photocopy of the Early Field Experience Guide must be turned in as part of the application to the credential program.
9. Personal Narrative. The narrative should address the following items:
a. The candidate's interest in and motivation for a teaching career in a multicultural setting;
b. The candidate's personal background and experience in working with children in multicultural settings;
c. Other experiences personally considered important in the teacher preparation process;
d. Any abilities, knowledge, skills, or experience that will enhance the candidate's effectiveness as a teacher (e.g., ability to speak another language, play a musical instrument, use technologies, or experience working with individuals with disabilities or special needs).
10. 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 School of Teacher Education, BA-259, 619-594-6320. All candidates are urged to attend one of the regularly scheduled group advising sessions prior to making an individual appointment.

## Post-Baccalaureate Multiple Subject Preparation Program

To qualify for admission, candidates must have completed (1) a baccalaureate or higher degree and (2) the Admission Standards and Qualifications for the Multiple Subject Credential Program listed above. Each student completes student teaching in two different grade levels; one assignment is at the primary level (in grades K-3) and another is at the intermediate level (in grades 4-6). All students enrolled in the traditional Multiple Subject Teacher Preparation Program will take the following courses.

## Multiple Subject Required Courses

Units
TE 902 Classroom Management Skills .................................... 1
TE 910A Teaching Mathematics in the Elementary School.......... 3
TE 910B Teaching Social Studies in the Elementary School........ 3
TE 910C Teaching Science in the Elementary School ................ 3
TE 923 Psychological Foundations of Education ....................... 3
TE $930 \quad \begin{aligned} & \text { Teaching Reading and Language Arts in the } \\ & \text { Elementary School..................................................... } 6\end{aligned}$
TE 960 Basic Student Teaching Seminar (Cr/NC) ..................... 1
TE 961 Advanced Student Teaching Seminar (Cr/NC).............. 1
TE 965 Basic Student Teaching in Elementary Schools Cr/NC............................................................................... 8
Advanced Student Teaching in Elementary Schools Cr/NC............................................................................ 8
EDTEC 470* Technologies for Teaching............................................. 2
PLC 915A Teaching and Learning in the Content Area: English Language Development/SDAIE .................. 3

Total Units 42

* On the first day of EDTEC 470, students will take a test that focuses on computer literacy. Students who do not achieve the minimum score will be required to enroll in EDTEC 270A (1 unit).


## Integrated Multiple Subject Preparation Program

To qualify for admission, students must have completed (1) the Liberal Studies part of the nine-semester Integrated Program (see Liberal Studies) and (2) the Admission Standards and Qualifications for the Multiple Subject Credential Program listed above. Applications for admission are completed during the seventh semester of this ninesemester program. During the "eighth" semester, each student completes classroom observations at a minimum of two different grade levels. During the "ninth" semester, each student completes student teaching either at the primary level (in grades K-3) or at the intermediate level (in grades 4-6). These experiences build upon the extensive experiences already completed in the Liberal Studies part of the Integrated program.

All students enrolled in the Integrated Multiple Subject Teacher Preparation Program will take the following courses in the eighth and ninth semesters of the program.
TE 910A Teaching Mathematics in the Elementary School ......... 3

TE 910B Teaching Social Studies in the Elementary School ....... 3
TE 910C Teaching Science in the Elementary School ................ 3
TE 923 Psychological Foundations of Education...................... 3
TE 930 Teaching Reading and Language Arts in the Elementary School .. 6
TE 961 Advanced Student Teaching Seminar (Cr/NC) ............. 1
TE 966 Advanced Student Teaching in Elementary Schools Cr/NC
.. 8
EDTEC 470* Technologies for Teaching ............................................ 2
PLC 915A Teaching and Learning in the Content Area:
English Language Development/SDAIE .................. 2
Total Units 31

* On the first day of EDTEC 470, students will take a test that focuses on computer literacy. Students who do not achieve the minimum score will be required to enroll in EDTEC 270A (1 unit).
For information on the Blended Integrated Program offered by the Imperial Valley campus, see the Imperial Valley Campus Bulletin.


## Single Subject Credential

 (Secondary Education) (Credential Code: 00100)
## Single Subject-Preliminary 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
English language arts: Comparative Literature, English
Foreign languages: Classics (Latin), Spanish
Science: Biology, Chemistry, Geological Sciences, Physical Science
Mathematics: Mathematics
Music: Music
Physical education: Kinesiology (Specialization in Physical Education)
Social science: Social Science

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.
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 California Subject Examinations for Teachers (CSET). Candidates should check with the School of Teacher Education, BA-255, to clarify the appropriate means for satisfaction of the subject matter competency requirement in their subject matter area(s). 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 threeunit collegiate-level course or examination. Courses are listed in the section of this catalog on "Graduation Requirements," IV. American Institutions Requirement.
6. Current certification in cardiopulmonary resuscitation (CPR).

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 School of Teacher Education, BA-255. Contact the School of Teacher Education for application dates.

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 Student Testing, Assessment and Research 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 CSET examinations. 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. Early submission of completed application packets is encouraged to facilitate enrollment and preference in block placement. Applicants submitting materials late in the term may be considered on a "space available basis" only. Test scores submitted for verification of subject matter competency are valid for five years from the date of the examination. Information and registration materials for all current examinations are available at the School of Teacher Education, BA-255.
3. Prerequisite Courses. These courses or approved equivalents must be completed with grades of " $C$," "CR," or higher no more than seven years prior to admission to the Single Subject Credential Program. The course may be in progress at the time of program
application. Proof of registration is required to be considered for admission.
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. Health and Human Services 280, "Health Education for Teachers." This course provides topics designated in the Health Framework for California to include how to infuse health topics into the general curriculum.
c. Special Education 450, "Classroom Adaptations for Special Populations." This course provides strategies for adapting curriculum, differentiating instruction, meeting social and behavioral needs, and modifying assessments for students with disabilities and/or gifted and talented students in general education classrooms.
4. Grade Point Average. Candidates must have attained a grade point average of at least 2.67 in all baccalaureate and postbaccalaureate coursework or a grade point average of at least 2.85 in the last 60 semester units attempted. 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. Letters of Recommendation. Candidates must submit two letters of recommendation from individuals who know the candidate well (but are not related by blood or marriage) and who can comment directly on factors such as the candidate's qualifications for a teaching career in a multicultural setting, work or educational experiences, experience teaching or supervising students or other groups of individuals, personal character, and/or potential for success as a teacher. The signed letters may be hand carried and do not need to be confidential or in sealed envelopes, but must be on letterhead stationery (name, address, and phone number of sender included.) If the letters are not on letterhead, the name, address, and phone number of the sender must be typed on the letter.
6. 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.
7. 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. Candidates must submit the application directly to the California Commission on Teacher Credentialing. A copy of the certificate prior to admission must be provided to the School of Teacher Education.
8. Early Field Experience. Candidate must successfully complete a minimum of 30 hours of observation and participation in a "regular" classroom in public secondary schools. This documented through the Early Field Experience Guide - Single Subject available in the SDSU Bookstore in the book stacks under "Teacher Education." The guide is also available for downloading from the School of Teacher Education Web site at
http://edweb.sdsu.edu/ste/teach/htm.
Either the original or a photocopy of the Early Field Experience Guide must be turned in as part of the application to the credential program.
9. Personal Narrative. The narrative should address the following items:
a. The candidate's personal background and experience working with children in multicultural settings;
b. The candidate's other experiences personally considered important in the teacher preparation process;
c. The candidate's interest in and motivation for a teaching career in a multicultural setting and;
d. Any abilities, knowledge, skills, or experience that will enhance the candidate's effectiveness as a teacher (e.g., ability to speak another language, use technologies, or experience working with individuals with disabilities or special needs).
10. 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. A personal interview may also be necessary. 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 School of Teacher Education, BA-259, 619-594-6320. All candidates are urged to attend one of the regularly scheduled group advising sessions prior to making an individual appointment.

## Single Subject Required Courses

TE 903
Secondary School Student Teaching Seminar
Cr/NC ............................................................... 2
TE 914
Teaching and Learning in the Content Area: Major. $\qquad$
TE 922
Behavioral and Psychological Aspects of Teaching 3-4
TE 933
Teaching of Reading in the Secondary School . 3
TE 954
Humanistic and Social Aspects of Teaching ... 4
TE 963
Secondary School Student Teaching I Cr/NC/RP .. 4
TE 964
Secondary School Student Teaching II Cr/NC/RP12
EDTEC 470 Technologies for Teaching. .....  3

PLC 915B Teaching and Learning in the Content Area: English Language Development/SDAIE ............... 3

## 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 Credentials Processing Center, BA-250.

## Description of Interdepartmental Major for Elementary Teaching

## Liberal Studies Major

With the B.A. Degree in Applied Arts and Sciences

## (Major Code: 49015)

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.
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
Mathematics 210
General advising for the Liberal Studies major is available at the Academic Advising Center.

## 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 reenroll for the credential program must file a separate application for admission to the university during the regular university application period.

## Courses (TE)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

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.

## LOWER DIVISION COURSES

## TE 211. Field Experience in Mathematics and Science (1) Cr/NC I,II

Two hours of activity and 10 hours of fieldwork.
Prerequisite: Recommended for sophomore or higher level students.

Guided classroom observations for prospective single subject mathematics and science teachers. Current issues in mathematics and science education and strategies that promote professional development. Issues related to teaching in culturally and linguistically diverse school settings.

## TE 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 <br> (Intended for Undergraduates)

TE 303. The Teaching Profession: First Clinical Experience (3 or 4) (Offered only at IVC)
Two lectures and three hours of laboratory for three units.
Three lectures and three hours of laboratory for four units.
Prerequisite: Requires clearance for all legally mandated fingerprint requirements, tuberculosis clearance, and others as required by state and/or school districts.

Social science concepts and theories for the teaching profession; guided student observation and participation in public school classrooms.

## TE 362. Fieldwork in Community Settings (1-4)

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.

## TE 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.

## TE 402. Foundations of Education (3) I, II

(Offered only at IVC)
Prerequisite: Admission to multiple or single subject teaching credential program.

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.

## TE 415. Methods and Materials of Instruction (3) I, II (Offered only at IVC)

Prerequisite: Admission to single subject teaching credential program.

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.

## TE 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.

## TE 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)

## TE 511. Assessment in Mathematics Education (3)

Techniques to assess and develop students' mathematical understanding. For use by elementary and secondary classroom teachers and mathematics education specialists.

## TE 525. Discipline and Classroom Management (3)

 (Offered only at IVC)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.

## TE 526. Teaching the Special Child in the Regular Classroom

(Selected sections offered as distance education.)
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.
TE 530. Children's/Adolescents' Literature (3) I, II
Survey of children's/adolescents' literature and its incorporation into the classroom curriculum.

## TE 596. Topics in Teacher Education (1-3 or 6) RP* I, II

Designed to meet the needs of individuals or groups of teachers who wish to develop or continue the study of some problem. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum six units of 596 and 696 applicable to a 30-unit master's degree.

[^34]GRADUATE COURSES
Refer to the Graduate Bulletin.

# Theatre, Television, and Film 

OFFICE: Dramatic Arts 204<br>TELEPHONE: 619-594-6363<br>FAX: 619-594-7431<br>http://ttf.sdsu.edu

In the College of Professional Studies and Fine Arts

## Faculty

Accredited by the National Association of Schools of Theatre

Emeritus: Anderson, Annas, Blue, Harvey, A.C., Harvey, M., Heighton, Howard, Jameson, Johnson, Jones, Lee, Madsen, Martin, McKerrow, Meador, Real, Stephenson, Witherspoon, Wylie
Director: Reid
The Don W. Powell Chair in Scene Design: Funicello
Filmmaker in Residence: Ofield
Professors: Durbin, G., Kalustian, Larlham, P., O'Donnell, Ofield, Reid, Reinholz, Salzer, Schreiber, Wolf
Associate Professors: Durbin, H., Freeman, Larlham, M.
Assistant Professors: Cirino, Hopkins, Morrison, Powell
Lecturers: Kahn, Keith, Marshall, Pierson, Sheehan, Simas

## Offered by the School

Master of Arts degree in theatre arts.
Master of Fine Arts degree in theatre arts.
Master of Arts degree in television, film and new media production.
Major in theatre arts with the B.A. degree in applied arts and sciences. Emphasis in children's drama.
Emphasis in design and technology for the theatre.
Emphasis in design for television and film.
Emphasis in performance.
Major in television, film and new media production with the B.S. degree in applied arts and sciences.
Major in communication with the B.A. degree in liberal arts and sciences.
Emphasis in telecommunications and film.
Minor in theatre arts.
Minor in television, film and new media.

## 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. Professor Powell, who retired after 30 years with the theatre department, created the trust in order to enhance theatre education at SDSU. The current holder of The Don W. Powell Scene Design Chair is the nationally acclaimed designer Ralph Funicello.

## Filmmaker in Residence

The position of Filmmaker in Residence is unique in the CSU system. It was established to provide a professional link between the Television and Film program and the media industry in a rapidly evolving technological environment. The Filmmaker in Residence is the film and television producer, Jack Ofield.

## Distinguished Visiting Artists

Through the generosity of the College of Professional Studies and Fine Arts, the School of Theatre, Television, and Film is fortunate to have Edward Albee and Marion Ross, two distinguished theatre artists, spend time with students and faculty each year. Edward Albee has for many years come to San Diego State University each spring. He is the recipient of many honors including three Pulitzer prizes and
is best known for his play "Who's Afraid of Virginia Woolf." Marion Ross is a graduate of our program and has had an illustrious career in theatre, television, and film. For many years, she played the mother on the TV series "Happy Days." Both Mr. Albee and Ms. Ross generously share their insights and are examples for our students of the highest professional achievements.

## General Information

The School of Theatre, Television, and Film has a threefold mission: 1) to provide quality education on the undergraduate and graduate levels for students seeking careers in all areas of theatre and media; 2) to support the university's central mission to educate the whole person in the liberal arts tradition; and 3) to foster academic and creative interaction between established and emerging artists on campus and off. The School is specifically geared to assist students in their efforts to seek professional work in various fields of theatre and media, to seek teaching positions at all levels, and to contribute to the cultural life of the community.

A strong, accomplished faculty of teacher-scholar-artists and a broad cross-arts curriculum guide students toward an understanding of how the arts interact, as well as an appreciation of the significant role of the arts in civilized society and the pursuit of human happiness. Supervised internships with theatre companies, television stations, film companies, individual artists, schools and academies provide students with important practical experience for their future careers. The value of academic coursework or internships completed as part of an international experience is stressed.

The bachelor's degree in Theatre Arts prepares students for careers as actors, directors, playwrights, stage and theatre managers, designers, teachers, and more. Students may pursue a general emphasis in theatre arts or specialize in a single emphasis area (Performance, Children's Drama, Design and Technology, Design for Television and Film). The program encourages involvement in all aspects of production, from direction and performance to dramaturgy and design. In addition to a broad spectrum of courses, the School presents an annual six-play season, open to the San Diego community, affording students numerous design and performance opportunities. The study and public performance of musicals, classical and contemporary drama, and plays for young audiences are key components of the program. Further professional growth opportunities are provided through association with regional theatre companies as well as visits to campus by theatre professionals.

The bachelor's degree in Television, Film and New Media Production is designed to prepare students in the moving image arts for careers as producers, directors, writers, art directors, editors, sound and lighting designers, cinematographers, videographers, sound engineers, and animators, as well as careers in new media production. The program's professional focus on storytelling, both fiction and nonfiction, using sound and moving images, includes theory, philosophy, and technique. The integrated film-television program implicitly acknowledges that these media are a fundamental facet of contemporary culture, not only in terms of presenting fictional stories that help define our culture's values and problems, but also in terms of presenting news, politics, topical issues, and historic events in "documentary" form. State-of-the-art methods are a part of all of the film and media production courses, several of them heavily focused on new media and the infrastructure of the Information Age. The TFM program
has been in the vanguard of the move to seamlessly combine film, television and digital technologies to better prepare students for the challenging future. In additional to an array of courses, TFM provides annual industry screenings, festival screenings, and television exposure for outstanding student productions.

The School of Theatre, Television and Film operates teaching facilities that include the 500-seat Don Powell Theatre, a 200-seat experimental theatre, and a 281-seat film screening theatre; scenic and costume construction facilities for both theatre and film; a large color television studio, computer labs, digital editing bays, and a Maya animation lab. Research facilities include a historical costume collection, a design research center, an extensive musical theatre archive, and the STAR Lab for technical theatre research.

## Impacted Programs

All programs in the School of Theatre, Television, and Film are impacted. To be admitted to the selected program, refer to the program description for specific impacted criteria.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## Theatre Arts Major

## With the B.A. Degree in Applied Arts and Sciences <br> (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."

Neither a minor nor a foreign language is required with this major.
Impacted Program. The theatre arts major is an impacted program. To be admitted to the General Theatre Arts Program or the Emphasis in Children's Drama, students must meet the following criteria:
a. General Theatre Arts Program or Emphasis in Children's Drama: Complete with a grade of C or higher: Theatre 100, Theatre 107 or 120, and Theatre 130 (or appropriate transfer equivalents). These courses cannot be taken for credit/no credit (Cr/NC);
b. Have a cumulative GPA of 2.40 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

## General Theatre Arts Program

Preparation for the Major. Theatre 100, 107, 110, 120, 130, 231, $240 \mathrm{~A}, 240 \mathrm{~B}, 240 \mathrm{C}$ ( 27 units). Theatre 100, 107 or 120 , and 130 must be completed with a grade of C or higher and cannot be taken credit/no credit (Cr/NC).

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 38-39 upper division units in theatre to include Theatre 325, 359, 425, 446A (one unit), 446B (one unit), 460A, 460B, 465; and 18-19 units selected from the following sequences of which three units must be selected from Design and six units from Performance:

Design:3-6 units selected from Theatre 440, 447, 452, 548.
Technical Theatre: 4 units selected from Theatre 349, 448, 541, 545, 549, 554B.

Performance: 6-9 units selected from Theatre 310, 315, 332, 350, 351, 459.

Management: 2-3 units selected from Theatre 345 or 475A.

## Emphasis in Children's Drama

Preparation for the Major. Theatre 100, 107, 110, 120, 130, 240A, 240B, 240C (24 units). Theatre 100, 107 or 120, and 130 must be completed with a grade of C or higher and cannot be taken credit/no credit (Cr/NC).

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Rhetoric and Writing Studies 305 W or 500 W with a grade of $C$ (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 35 upper division units to include Theatre 310, 315, 325, 359, 425, 446A (one unit), 446B (one unit), 460A, 460B, 510, 580; Teacher Education 530; and three units selected from Theatre 329A, 329B, 440, 447, 452, 459, 475A, 475B.

## Emphasis in Design and Technology for the Theatre

To declare an Emphasis in Design and Technology for the Theatre Arts major, in addition to the criteria for admission to the General Theatre Arts program, students must complete the following:
a. Theatre 240A and 240B (or transfer equivalent of these courses);
b. Theatre 107, 240A, and 240B with a GPA of 2.7;
c. Submit a portfolio of design work (see undergraduate design adviser for details). Transfer students should include a letter of support from previous school if no design work is available.
Preparation for the Major. Theatre 100, 107, 120, 130, 240A, 240B, 240C (21 units). Theatre 100, 107 or 120, and 130 must be completed with a grade of C or higher and cannot be taken credit/no credit (Cr/NC). Theatre 240A and 240B must also be completed. Theatre 107, 240A, and 240B must be completed with a minimum GPA of 2.7.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 40 upper division units in theatre to include Theatre 325, 359, 425, 440, 442A or 442B, 446A (one unit), 446B (one unit), 447, 452, 460A, 460B, 530A or 530B; and three units selected from Theatre 540, 547, 548, 552; and six units selected from Theatre 349, 448, 539, 541, 545, 546, 549, 550, 554A, 554B. Recommended electives: Theatre 345, 475A, 551, 570A, 570B.

## Emphasis in Design for Television and Film

To declare an Emphasis in Design for Television and Film, in addition to the criteria for admission to the General Theatre Arts program, students must complete the following:
a. Theatre 240A and 240B (or transfer equivalent of these courses);
b. Theatre 107, 240A, and 240B with a GPA of 2.7;
c. Submit a portfolio of design work (see undergraduate design adviser for details). Transfer students should include a letter of support from previous school if no design work is available.
Preparation for the Major. Television, Film and New Media 160; Theatre 100, 107, 130, 240A, 240B, 240C. (21 units). Theatre 100, 107, and 130 must be completed with a grade of $C$ or higher and cannot be taken credit/no credit (Cr/NC). Theatre 240A and 240B must also be completed. Theatre 107, 240A, and 240B must be completed with a minimum GPA of 2.7 .

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Rhetoric and Writing Studies 305 W or 500 W with a grade of $C$ (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 48 upper division units to include Television, Film and New Media 320, 350, 550; Theatre 325, 359, 425, 440, 442A or 442B, 446A (one unit), 446B (one unit), 447, 452, 460A, 460B, 530A or 530B; six units selected from Television, Film and New Media 401, 551, Theatre 540, 547, 548, 552; and two units selected from Theatre $448,539,541,545,546,549,550,554$ A, 554B.

## Emphasis in Performance

To declare an Emphasis in Performance, in addition to the criteria for admission to the General Theatre Arts program, students must complete the following:
a. Theatre 110, 231 (or transfer equivalent of these courses) and Theatre 332;
b. GPA of 2.5 or higher in the above courses;
c. A written positive review of student's work by the instructor of Theatre 332.
Preparation for the Major. Theatre 100, 107, 110, 120, 130, 231, $240 \mathrm{~A}, 240 \mathrm{~B}, 240 \mathrm{C}$ (27 units). Theatre 100, 107 or 120 , and 130 must be completed with a grade of C or higher and cannot be taken credit/no credit ( $\mathrm{Cr} / \mathrm{NC}$ ). Theatre 110, 231, and 332 must also be completed. Theatre 110, 231, and 332 must be completed with a GPA of 2.5 or higher.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 35-36 upper division units in theatre to include Theatre 320A or 320B, 325, 332, 355, 359, 425, 446A (one unit), 446B (one unit), 446C (two units), 460A, 460B and either 551, 523 or 555A; and six units selected from Theatre 350, 351, 431, 434, 532, 533A, 533B. Recommended electives: Theatre 345, 349, 459, 475A, 475B, Television, Film and New Media 390. All performance emphasis, theatre majors are required to participate in general auditions each semester.

## Television, Film and New Media 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." To complete the television, film and new media production major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

The B.S. degree is designed to prepare students for professions in television, film and new media production. The degree also serves those in occupations where extensive knowledge is required of message design for these media and their various distribution systems. This program focuses on skills required for careers as producers, directors, art directors, production assistants and writers, as well as emerging careers in new media production.

Impacted Program. The television, film and new media production major is designated as an impacted program. To be admitted to the television, film and new media major, students must meet the following criteria:
a. Complete with a grade of B or higher: Theatre 100 and Television, Film and New Media 160. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a personal statement to be evaluated by the faculty;
c. Submit two letters of recommendation to be evaluated by the faculty;
d. Complete a minimum of 15 transferable semester units;
e. Have a cumulative grade point average of 3.00 or higher;
f. Submit samples of creative work;
g. Submit a treatment for a 1-3 minute production (fiction or nonfiction).
Preparation for the Major. Theatre 100, 120; Television, Film and New Media 110, 121, 122, 123, 160, 260, 261 (27 units). Theatre 100 and Television, Film and New Media 160 must be completed with a grade of B or higher and cannot be taken credit/no credit (Cr/NC).

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or Communication 310W, or Rhetoric and Writing Studies 305W with a grade of

C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Television, Film and New Media 320, 322, 327, 401, 510, 560 or $561 ; 15$ units selected from Television, Film and New Media 321, 330, 340, 341, 350, 363, 364, 390, 435, 462, 490, 499, 522, 550, 551, 555, 565, 569; and three units selected from History 435, Music 351, or Theatre 359. A minor is not required with this major.

## Communication Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 06033)

## Emphasis in Telecommunications and Film With the B.A. Degree in Liberal Arts and Sciences

No new students will be admitted to this emphasis.
To complete the telecommunications and film emphasis, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Impacted Program. The telecommunications and film emphasis is designated as an impacted program. To be admitted to the telecommunications and film major, students must meet the following criteria:
a. Complete with a grade of B or higher: Communication 200 and Television, Film and New Media 160. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a personal statement to be evaluated by the faculty;
c. Submit two letters of recommendation to be evaluated by the faculty;
d. Have a cumulative grade point average of 3.00 or higher.

Preparation for the Major. Communication 200; Television, Film and New media 110, 160; and six units selected from Television, Film and New Media 121, 122, 123. (15 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Communication 310W or Rhetoric and Writing Studies 305W with a grade of C (2.0) or better. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 24 upper division units to include Communication 300, 440, 460, and 480; and 12 units of upper division electives in the School of Communication approved by the adviser. Students selecting the telecommunications and film emphasis are required to complete a minor outside the School of Communication.

## Theatre Arts Minor

Theatre 100 is prerequisite to the theatre arts minor and does not count towards the units required for the minor.

The minor in theatre arts consists of 24 units in theatre to include Theatre 107, 120; 115 or 345; 460A or 460B; and three units selected from Theatre 240A, 240B, or 240C; three units selected from Theatre 310, 315, or 325; and six units selected from Theatre 355, 442A, 442B, 475A, or 555.

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 in residence at San Diego State University.

## Television, Film and New Media Minor

(Minor Code: 06031)

The minor in television, film and new media is designed for students in business, English, music, prelegal, theatre or other majors related to the writing, production and distribution of media. The minor consists of 21 units to include Television, Film and New Media 110, 160, 320; Theatre 100; six units selected from Television, Film and New Media 363, 364, 462; and three units selected from Television, Film and New Media 401, 435; Theatre 120, 345. Admission to the Television, Film and New Media minor requires completion of at least 30 units with a minimum grade point average of 3.0 overall and completion of Theatre 100 and Television, Film and New Media 160 with grades of B or better.

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

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES INTHEATRE (THEA)

THEA 100. Theatre and Civilization (3) [GE] I, II
Introduction to theatre as a reflection of society and a contributor to development of civilization. Emphasis on theatre's continuing relevance to contemporary world. Attendance at selected theatre events required.

## THEA 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 theatre arts major sequence.
THEA 110. Voice and Speech I (3) I, II
Exercises and drills to improve the quality, flexibility and effectiveness of the speaking voice leading to good usage in standard American speech.

## THEA 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.

THEA 120. Heritage of Dramatic Literature (3) [GE] 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.

## THEA 130. Acting I (3) I, II

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

THEA 231. Acting II (3) I, II
Prerequisite: Theatre 130.
Continuation of Theatre 130, emphasizing application of fundamental skills to problems of text analysis, subtext, playing action, characterization, and ensemble work.

THEA 240A. Theatre Design and Technology I (3) I, II
Two lectures and three hours of laboratory.
Prerequisites: Theatre 100 and 107. Proof of completion of prerequisites required: Copy of transcript.

Design, technical practices, and production organization for the theatre; scenery and stagecraft.

THEA 240B. Theatre Design and Technology II (3) I, II
Two lectures and three hours of laboratory.
Prerequisites: Theatre 100 and 107. Proof of completion of prerequisite required: Copy of transcript.

Design, technical practices, and production organization for the theatre: costume technology.

THEA 240C. Theatre Design and Technology III
Two lectures and three hours of laboratory.
Prerequisite: Theatre 240A. Proof of completion of prerequisite required: Copy of transcript.

Design, technical practices, and production organization for the theatre: lighting and sound.

THEA 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 INTHEATRE (Intended for Undergraduates)

THEA 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.

THEA 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.

THEA 320A-320B. Voice and Speech II (3-3) II
Prerequisites: Theatre 320A: Theatre 110. Theatre 320B: Theatre 110 and cast in department production.

Techniques of vocal expression in the theatre, primarily in plays with heightened and elevated speech, e.g. Shakespeare and classic Greek drama. Maximum credit six units for Theatre 320B
A. Select Heightened Speech From the Greeks to Today
B. Performing Specific Character in Department Production

THEA 325. Script Analysis (3) I, II
Prerequisites: Theatre 100 and completion of lower division writing competency requirement. Proof of completion of prerequisites required: Copy of transcript.

Analysis of representative plays with emphasis on plot and character development, dramatic structure, action, and style.

THEA 329A-329B. Practicum in Theatre for Young Audiences Cr/NC (329A: 2 units) (329B: 1 unit)
Two hours of activity per unit.
Prerequisite: Theatre 315 .
Practical experience in department public performances of plays
for young audiences.
A. Rehearsal
B. Performance

THEA 332. Acting III (3) I, II
Prerequisites: Theatre 110, 130, 231, and by audition.
Continuation of Theatre 231, emphasizing analysis of literary text in
process of creating characters. Scene study and role preparation of
significant texts by modern playwrights. May be repeated once with consent of instructor.

THEA 345. Theatre Marketing and Publicity (3) I, II
One lecture and four hours of activity.
Prerequisite: Theatre 100 or 107.
Practical experience in marketing and publicity for theatres, including PSA's, press releases, layout-graphics for written materials, magazine and newspaper advertisements, marketing strategy and campaign development for a full theatre season.

THEA 349. Theatrical Makeup (2) I
Two hours per unit.
Prerequisite: Theatre 240B.
Planning and application of makeup for stage, film, and television. Classroom exercises and production-related activities.

THEA 350. Musical Theatre Performance I (3) I
Two lectures and three hours of laboratory.
Prerequisites: Theatre 332 and by audition.
Basic performance techniques in musical theatre. Emphasis on application of acting theory to musical theatre literature. Maximum credit six units.

## THEA 351. Musical Theatre Performance II (3) II

Two lectures and three hours of laboratory.
Prerequisites: Theatre 332 and by audition.
Vocal selections and scenes in musical theatre. Emphasis on characteristics and performance styles. Maximum credit six units.

THEA 355. Movement for the Theatre I (2) I
Two hours of activity per unit.
Prerequisites: Theatre 332 and by audition for majors. Theatre 115 for theatre minors.

Locomotor and axial body movement for the stage director and actor; introduction to mime. Relationship between body expression and character portrayal.
THEA 359. Directing I (3) I, II
Prerequisites: Theatre 130, 240B, 240C, 325. Proof of completion of prerequisite required: Copy of transcript.

Principles and techniques of directing for the stage: play selection, analysis, and interpretation; casting methods; stage composition and movement; and rehearsal procedures.

## THEA 425. Production Synthesis (3) I, II

Prerequisites: Theatre 240B, 240C, and 359. Proof of completion of prerequisites required: Copy of transcript.

Capstone course integrating artistic vision and production considerations through synthesis of text analysis, performance, and design in collaborative process unique to the theatre.

THEA 431. Workshop in Improvisational Acting (3) I
Prerequisite: Theatre 332 and by audition.
Theories and principles of improvisational acting.
THEA 434. Audition Techniques for the Actor (3)
Two lectures and two hours of activity.
Prerequisite: Theatre 332 and by audition.
Techniques of auditioning and interviewing in the theatre, film, and television; selecting audition pieces, rehearsing, and performing auditions.

## THEA 440. Scene Design I (3) I

Two lectures and three hours of laboratory.
Prerequisites: Theatre 240A and 325.
Techniques and procedures in application of design, color, and perspective in designing scenery.

THEA 442A-442B. Practicum in Theatrical Production (2-2) I, II
Two hours of activity per unit.
Prerequisite for 442A: Theatre 240A. Prerequisite for 442B: Theatre 240B for majors. Theatre 240A or 240B for theatre minors.

Technical theatre production experience for departmental public performances.
A. Scenery Construction
B. Costume Construction

THEA 446A-446B. Practicum in Performance (1-1) Cr/NC I, II THEA 446C. Practicum in Performance (1-3) Cr/NC I, II

Two hours per unit.
Prerequisite for 446A: Theatre 240A. Prerequisite for 446B: Theatre 240B. Prerequisite for 446C: Theatre 100.

Practical experience in departmental public performances. (Theatre 446C formerly numbered Theatre 445A; Theatre 446A and 446B formerly numbered Theatre 445B.)
A. Stage Crew. Maximum credit three units for Theatre 446A.
B. Costume Crew. Maximum credit three units for Theatre 446B.
C. Cast Member. Maximum credit six units for Theatre 446C.

THEA 447. Lighting Design I (3) II
Two lectures and three hours of laboratory.
Prerequisites: Theatre 240C 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.
THEA 448. Theatre Technology (2) I
Two lectures and three hours of laboratory.
Prerequisite: Theatre 240A.
Current materials and practices of theatre technology. Advanced construction techniques; stage machinery design and control; special effects; computer applications for stage operations; budget, research, and management procedures.

THEA 452. Costume Design I (3) II
Two lectures and three hours of laboratory.
Prerequisites: Theatre 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.

## THEA 459. Directing II (3) II

Two lectures and two hours of activity.
Prerequisites: Theatre 359 and consent of instructor.
Experience and group evaluation in directing one-act plays before an audience. Attendance at selected public performances required. Maximum credit six units.

## THEA 460A-460B. History of the Theatre (3-3) [GE] I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities. Prerequisite not required for theatre arts majors.

Theatre from primitive times to the present. Special attention given to the theatre as a mirror of the social and cultural background of various countries and periods in which it is studied. Theatre 460A is not prerequisite to 460B.

## THEA 465. Theatre of Diversity (3) [GE] I, II

Prerequisite: Theatre 325 for theatre majors. Completion of the General Education requirement in Foundations II.C., Humanities for nonmajors.

Racial, ethnic, political, and social diversity of American landscape as reflected in works of major playwrights of diversity.

THEA 475A. Stage Management-Theory (2) I, II
Prerequisites: Theatre 240B and 240C for majors. Theatre 240A, 240B, or 240C for theatre minors.

Development of the prompt script, organizational methods, and collaborative personnel interaction. Maximum credit four units.

THEA 475B. Stage Management-Practicum (3) I, II
Six hours of activity.
Prerequisite: Theatre 475A.
Practical experience in stage managing department productions. Maximum credit six units.

THEA 490. Theatre Internship (1-3) Cr/NC I, II
Prerequisite: Theatre 325; internship contract must be completed prior to registration.

Work with approved theatre organizations off-campus under the combined supervision of theatre personnel and instructors. Maximum credit three units.

THEA 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.

THEA 499. Special Study (1-3) I, II
Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

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

THEA 510. Creative Drama and Language Arts (3) I
Prerequisite: Theatre 310.
Advanced techniques in using creative drama to teach literature and language. Emphasis on use of drama in teaching of reading and world literature. Practical experience through fieldwork in elementary or middle school classrooms.

THEA 523. Stage Combat (2)
Four hours of activity.
Prerequisites: Theatre 332 and by audition.
Skills and choreography of armed and unarmed stage combat. Performance application to selected scenes from world drama.

THEA 525. Dramaturgy (3)
Two lectures and three hours of activity.
Prerequisite: Theatre 325 or graduate standing.
Theory and application of various aspects of dramaturgy and theatre literary management. Production-oriented synthesis of advanced test analysis, dramatic theory and criticism, historical research, and dramatic literature. Attendance at select plays required.

THEA 530A-530B. Period Dress and Decor (3-3) II
Prerequisite: Theatre 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. Theatre 530A is not open to students with credit in Theatre 530.
A. Ancient World Through Eighteenth Century
B. NeoClassical Through Twentieth Century

THEA 532. Advanced Acting and Directing (3)
Prerequisites: Theatre 332 and by audition.
Problems in characterization in contemporary drama, and in plays of Ibsen, Strindberg, Chekhov, and Shaw.

## THEA 533A-533B. Theory and Styles in Acting and Directing I and II (3-3)

Prerequisites: Theatre 332 and by audition.
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.

## THEA 539. Theatre Rendering (2) II

Four hours of activity.
Prerequisite: Theatre 240B.
Rendering for scenic, costume, and lighting designer. Techniques, media, and portfolio preparation. Maximum credit four units.
THEA 540. Scene Design II (3) I
Prerequisites: Theatre 440 and 530A or 530B.
History of scene design and application of contemporary styles to various types of dramatic production.

THEA 541. Scene Painting (2) II
Four hours of activity.
Prerequisite: Theatre 530A or 530B.
Theories and techniques of scene painting, including both historical backgrounds and modern procedures. Full-scale projects executed in scenery studio.

## THEA 545. Mechanical Drawing for the Theatre (2) I <br> Four hours of activity.

Prerequisite: Theatre 240A or admission to MFA in Design.
Theatre drafting standards and techniques. Floor plans, sections, elevations, perspective drawings, and light plots.

THEA 546. CADD for the Theatre (2) II
Four hours of activity.
Prerequisite: Theatre 545.
Computer aided drafting applications for theatre designer.
THEA 547. Lighting Design II (3) I
Two lectures and three hours of laboratory.
Prerequisite: Theatre 447.
Advanced design theories and lighting practice for theatre and dance. Laboratory and production related activities.

THEA 548. Sound Design for the Theatre (3) I
Two lectures and two hours of activity.
Prerequisites: Theatre 240C and 325.
Theories and techniques of sound design and reinforcement for theatrical performance. Laboratory experience in sound production.

THEA 549. Lighting and Sound Technology (2) II
One lecture and three hours of laboratory.
Prerequisite: Theatre 447.
Use of electrics for the stage. Lighting, sound, computer. Practical applications emphasized.
THEA 550. Software for Theatrical Design (2) I
Four hours of activity.
Prerequisites: Theatre 440, 447, 452, or 546.
Application of computer software for theatre, including scenery, costume, lighting, and sound design.
THEA 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.

## THEA 552. Costume Design II (3) I

Prerequisites: Theatre 452 and 530A or 530B.
Advanced studies in costume design. Emphasis on theatrical style, rendering layout, design problems, materials, and budget.

## THEA 554A. Costume Design Technology I (2) I

Four hours of activity.
Prerequisite: Theatre 240B.
Current materials and practices of costume technology: advanced construction techniques, fabric selection and use, period pattern drafting, draping and cutting. Maximum credit four units.
THEA 554B. Costume Design Technology II (2) II
Four hours of activity.
Prerequisite: Theatre 240B.
Advanced costume craft construction techniques and management procedures for costume production: millinery, fabric dyeing and painting, jewelry, and related crafts. Maximum credit four units.

## THEA 555A. Movement for the Theatre II <br> (2) II

Four hours of activity.
Prerequisites: Theatre 332 and 355.
Movement techniques for the theatre. Movement patterns, phrase development, and partnering leading to scene work. Maximum credit four units. (Formerly numbered Theatre 555.)

## THEA 555B. Movement for the Theatre II (2) I, II

Four hours of activity.
Prerequisite: Admission to the MFA musical theatre program. Consent of instructor for undergraduates.

Musical theatre movement and dance styles. Maximum credit eight units.

THEA 570A-570B. Practicum in Theatrical Production (1-3) (1-3) Prerequisite: Theatre 440, 447, or 452; or admission to MFA in Design.

Design projects in areas of scenery, costume, lighting, sound, or makeup. Maximum credit six units for 570A and six units for 570B.
A. Independent Study
B. Design for Department Public Performances

## THEA 580. Theatre in the Classroom (3) II

Prerequisites: Theatre 310 and 315.
Methods of teaching theatre in elementary, middle, and secondary schools. Emphasis on pedagogy, organization of curriculum, play selection, and principles of producing plays in the classroom.

## THEA 596. Selected Topics in Theatre (1-3) I, II

Prerequisite: Twelve units in theatre.
A specialized study of selected topics from the areas of theatre. 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.

## LOWER DIVISION COURSES INTELEVISION, FILM AND NEW MEDIA (TFM)

TFM 110. Telecommunications and Film Writing (3) I, II
Prerequisites: Satisfaction of the English Placement Test. 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 Studies 97, or notification from the Department of Rhetoric and Writing Studies.

Theory and practice in writing for electronic and film media. Introduction to techniques of narrative and documentary writing and scripting.

TFM 121. Audio Production (3) I, II
Two lectures and three hours of activity.
Prerequisites: Credit or concurrent registration in Television, Film and New Media 110.

Theory of audio production, use of digital recording, and editing equipment.

## TFM 122. Basic 16MM Film Production

Two lectures and three hours of activity.
Prerequisite: Limited to television, film and new media production majors.

16MM film production and non linear editing.
TFM 123. Basic Video and TV Production (3)
Two lectures and three hours of activity.
Prerequisites: Credit or concurrent registration in Television, Film and New Media 110. Limited to television, film and new media production majors.

Video and TV production including studio and electronic field production. Practical instruction in documentary practices and techniques.

## TFM 160. Cinema as Art and Communication (3) [GE] I, II

Cinema in its diverse forms. Historical and stylistic influences on aesthetic values and social implications of cinema.

TFM 260. Intermediate 16MM Film Production (3)
Two lectures and more than three hours of activity.
Prerequisites: Television, Film and New Media 110, 121, 122, 123 with grade of $\mathrm{C}(2.0)$ or better. Proof of completion of prerequisites required: Copy of transcript.

Production of scene studies. Principles of film technique and theory. Focus on director's work in relation to cinematographer, sound designer, editor, and producer. Casting and directing actors.

TFM 261. Intermediate Video and TV Production (3)
Two lectures and more than three hours of activity.
Prerequisites: Television, Film and New Media 110, 121, 122, 123 with grade of $C$ (2.0) or better. Proof of completion of prerequisites required: Copy of transcript.

Application of video production techniques to community based documentary practice. Practice of video and TV production. Emphasis on studio and sound stage. Responsibilities of producer, director, and production staff.

## UPPER DIVISION COURSES INTELEVISION, FILM AND NEW MEDIA (Intended for Undergraduates)

## TFM 320. Film and Video Aesthetics (3) II

Prerequisite: Television, Film and New Media Production 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.

TFM 321. Sound Design for Video and Film (3)
Two lectures and two hours of activity.
Prerequisite: Television, Film and New Media 260.
Digital audio post-production for video, TV, and film. Includes field acquisition, Foley, editing, and assembling.
TFM 322. Cinematography for Television and Film (3)
Two lectures and three hours of laboratory.
Prerequisites: Television, Film and New Media 122 and 123.
Basic cinematography, including introduction to specialized studio and location equipment; lighting techniques for film and television; introduction to film labs. (Formerly numbered Television, Film and New Media 522.)

TFM 327. Film and Video Editing (3)
One lecture and four hours of activity.
Prerequisites: Television, Film and New Media 122 and 123.
Theory and practice of film and video editing.
TFM 330. Cultural Aspects of Media (3) I
Prerequisites: Communication 200 and Television, Film and New Media 160.

Cultural dimensions of media. Media structures, uses, and effects at national and international levels in a context of humanities and conceptual arts.

## TFM 340. Documentary Production (3)

Two lectures and two hours of activity.
Prerequisites: Television, Film and New Media 110, 121, 122 or 123, 261 with a grade of $C$ or better.

Documentary film production including research techniques, investigative procedures, and collection and analysis of data. Screenings of historical documentaries and their significance in development of nonfiction film. Hands-on field experiences in documentary production.

## TFM 341. Service Learning Video Production (3)

Two lectures and more than three hours of activity.
Prerequisites: Television, Film and New Media 110, 121, 122, 123 with a grade of C or better.

Service learning video production workshop emphasizing nonfiction field production.

## TFM 350. Staging and Art for Television and Film <br> (3)

One lecture and six hours of activity.
Aesthetic considerations and technical practices in staging, lighting, and graphics for television and film. Practical experience in university sponsored productions.

## TFM 363. International Cinema (3) [GE] I, II, S

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Construction of foreign film to history and practice of cinema as an art. Film as an expression of national culture. 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.

## TFM 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.

TFM 365. Digital Media (3)
Two lectures and more than three hours of activity.
Prerequisites: Computer background, familiarity with Internet, and upper division standing.

Fundamental conceptual strategies associated with creation of digital media. Visual and cultural impact of digital media. Production and creation strategies. (Formerly numbered Communication 265 and 365.)

## TFM 390. Broadcast and Film Performance <br> (3) II

Two lectures and three hours of activity.
Prerequisite: Theatre 110.
Preparation and delivery of materials before the microphone and camera.

## TFM 401. Business Aspects of Television and Film Production (3) I,II

Prerequisites: Television, Film and New Media 260 or 261. Usually taken concurrently with Television, Film and New Media 560 or 561. Proof of completion of prerequisites required: Copy of transcript

Financing, preproduction planning, postproduction, and distribution of television and film.

## TFM 430. History of Prime-Time Television (3) [GE]

Prerequisites: Television, Film and New Media 320 for majors. Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

History, trends, and dynamics in the programming of prime-time network television. External and internal forces that influence what we watch.

## TFM 435. Television Programming (3)

Prerequisite: Communication 200.
Structure of television programming. Problems such as ratings, advertisers, and scheduling. (Formerly numbered Communication 435.)

TFM 462. Documentary and Propaganda Film/Television (3) [GE]
Prerequisites: Television, Film and New Media 160 for majors. Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Persuasive concepts, techniques, and forms in documentary film and television programs. Major historical works and their impact on society. (Formerly numbered Television, Film and New Media 562.)

TFM 490. Internship (3) I
Prerequisite: Internship contract must be completed prior to registration.

Work with approved agencies off-campus under the combined supervision of agency personnel and instructor. Maximum credit six units.

TFM 496. Experimental Topics (1-3)
Prerequisites: Upper division standing and consent of instructor.
Experimental 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.
TFM 499. Special Study (1-3)
Prerequisites: Upper division standing and consent of instructor.
Individual study or project, normally in a research area selected by the student. Maximum credit six units.

## UPPER DIVISION COURSES IN TELEVISION, FILM AND NEW MEDIA

 (Also Acceptable for Advanced Degrees)
## TFM 510. Script Writing for Television and Film (3)

Prerequisites: Television, Film and New Media 110, 260 or 261; and satisfaction of the English Placement Test and Writing Competency requirements.

Scripting of dramatic original and adaptation forms, and the documentary.
TFM 522. Advanced Film and Television Cinematography (3) I
Two lectures and three hours of laboratory.
Prerequisites: Television, Film and New Media 260 or 261 and 322.
Proof of completion of prerequisites required: Copy of transcript.
Advanced theory and practice of cinematography for film and television production. Lighting for mood and character; camera movement for story telling; and new techniques in film, digital, and HD formats. Careers in the purely visual aspects of film making. (Not the same course as Television, Film and New Media 522 in the 2004-05 catalog and previous SDSU catalogs.)

## TFM 550. Art Direction for Television and Film <br> (3) II

One lecture and four hours of activity
Prerequisites: Television, Film and New Media 350; 260 or 261 for television, film and new media majors, and Theatre 440 for theatre majors, 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.

## TFM 551. Production Design for Television and Film (3)

Prerequisites: Television, Film and New Media 350 and credit or concurrent registration in Television, Film and New Media 401

Theory and analysis of production design concepts for television and film. Determination of stylistic and technical requirements for fictional and nonfictional productions.

## TFM 555. New Media Production (3)

Two lectures and three hours of activity.
Prerequisite: Television, Film and New Media 365. Limited to television, film, and new media majors

Development of audio visual products in new media formats. Multimedia laboratory to be arranged. (Formerly numbered Communication 555.)

## TFM 560. Advanced Film (3)

Two lectures and more than three hours of activity.
Prerequisites: Television, Film and New Media 260, 261, and 510 with grade of $B$ (3.0) or better in each and consent of instructor. Proof of completion of prerequisites required: Copy of transcript.

Practicum in direction and production of dramatic and nondramatic film. Cameras, lighting, design, sound techniques, experience in university sponsored productions. Completion of a short film

TFM 561. Advanced Television (3)
Two lectures and more than three hours of activity.
Prerequisites: Television, Film and New Media 260, 261, and 510 with grade of $B$ (3.0) or better in each and consent of instructor.

Critical analysis of relationship of form and content in nonfiction production.

## TFM 565. Animated Film and New Media Techniques <br> (3) II

Two lectures and more than three hours of activity.
Animation production and practical experience in digital technologies.

TFM 569. Advanced Projects in Film and Video (3)
Two lectures and more than three hours of activity.
Prerequisites: Television, Film and New Media 510, and 560 or 561.

Original and creative work demonstrating significant achievement in film and video production. Maximum credit six units.

## TFM 596. Selected Topics in Television, Film and New Media

(3)

Prerequisite: Twelve units in television, film and new media.
Specialized study of selected topics from the areas of television, film and new media. 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: Arts and Letters 346

 TELEPHONE: 619-594-6524
## Faculty

Emeritus: Espín, Huckle, Jones, Kohen, Watson
Chair: Scott
Professors: Cayleff, Rothblum, Scott, Zimmerman
Associate Professors: Colwill, Donadey, Ghosh, Mattingly
Assistant Professors: Lara, Roy

## Offered by the Department

Master of Arts degree in 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.

## Major Academic Plans (MAPs)

Visit http://www.sdsu.edu/mymap for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

## 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 101 and 102. (6 units)
Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Women's Studies 400W with a grade of C (2.0) or better. One of the other approved writing courses may be substituted with the consent of the undergraduate adviser. See page 81 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units to include nine units from Group I; 12 units from Group II; and Women's Studies 536 and 590.

Group I: Women's Studies 310, 320, 325, 331, 340, 341A-341B, 352, 360, 370, 375, 385; Africana Studies 332*, American Indian Studies $303^{*}$. Chicana and Chicano Studies $340^{*}$, Political Science 336*, Religious Studies 370*.

Group II: Women's Studies 512, 515, 521, 522, 530, 535, 553, 565, 572, 580, 581, 582, 595, 596, 598.
*No more than three units may be applied to the major in women's studies.

## Women's Studies Minor

The minor in women's studies consists of a minimum of 18 units in women's studies, of which 12 units must be upper division to include:

Women's Studies 101, 102, and six units selected from Women's Studies 310, 320, 325, 331, 340, 341A-341B, 352, 360, 370, 375, 385; Africana Studies 332*, American Indian Studies 303*, Chicana and Chicano Studies 340*, Political Science 336*, Religious Studies 370*.

Six units selected from Women's Studies 512, 515, 521, 522, 530, $535,536,553,565,572,580,581,582,590,595,596,598$.

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 in residence at San Diego State University.
*No more than three units may be applied to the minor in women's studies.

## Courses (wmwst)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

## LOWER DIVISION COURSES

## WMNST 101. Women: Self, Identity and Society (3) [GE] I, II

Interdisciplinary introduction to women's studies thought and scholarship in the social sciences, to include such areas as genderbased language, personality development and self-concept, social evolution, family structures, and economic life.
WMNST 102. Women: Images and Ideas (3) [GE] I, II
Major cultural representations of women in ancient through contemporary societies from perspectives in the humanities, including philosophy, religion, art, literature, and history.

## WMNST 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)

WMNST 310. Women in Cross-Cultural Perspective (3) [GE] I, II
Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Comparative study of social, economic, political, and ideological aspects of women's position in a global context. Women's status in contemporary, transitional, and pre-industrial societies.

## WMNST 320. Socialization of Women (3) [GE] I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Impact of formal and informal institutions on female development and gender roles across the life span.

## WMNST 325. Psychology of Women (3) [GE] 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.

## WMNST 331. Women in Asian Societies (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Socio-economic status of women in Asia. Feminism and the status of women in China, India, Japan, Korea, Philippines, and other countries. Feminist movements in Asia and women's status as affected by changing social, economic, and political orders in Asia.
WMNST 340. Women in Modern European History (3) [GE] 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.

## WMNST 341A-341B. Women in American History (3-3) [AI] 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.

## WMNST 352. Women in Literature (3) [GE] 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; relation to other art forms.
WMNST 360. Women's Sexuality and the Body (3) [GE]
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Social, cultural, and political aspects of women's sexualities and bodies; relationships among beliefs and practices, and among sexual behaviors and identities in historical context; role of popular culture, scientific, medical, and religious ideas.

## WMNST 370. Women, Law, and Policy (3) [GE] 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.

## WMNST 375. Sex, Power, and Politics (3) [GE] 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.

## WMNST 385. Women's Work (3) [GE]

Prerequisite: 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; economics of sex discrimination; government economic policies and women's welfare.

## WMNST 400W. Interdisciplinary Writing Practices: Feminist Perspectives (3)

Prerequisite: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking.

Workshop in interdisciplinary writing of academic essays, creative nonfiction, and other genres. Includes study of research methods and feminist critical and theoretical literatures.

## WMNST 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.

## WMNST 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 <br> (Also Acceptable for Advanced Degrees)

## WMNST 512. Latinas in the Americas (3)

Prerequisite: Three upper division units in women's studies.
How social and other factors impact the lives of Latin American women. Theoretical frameworks illuminate their situation. Sociocultural perspectives are offered on Latin American women's life narratives.
WMNST 515. Women: Myth, Ritual, and the Sacred (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.

## WMNST 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.
WMNST 522. Women: Madness and Sanity (3)
Prerequisite: Three upper division units in women's studies.
Concepts of mental health and mental illness in narratives as well as clinical approaches to women's lives. Includes Freudian, postFreudian, and feminist approaches to mental health.

WMNST 530. Women's Movements and Activism
(Selected sections offered as distance education.)
Prerequisite: Three upper division units in women's studies.
Comparative study of women's movements worldwide, including organizations, issues and initiatives. Women's diverse social/political strategies within local, national, and global contexts. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.
WMNST 535. Lesbian Lives and Cultures (3)
Historical, cultural, and social exploration of lesbianism. Topics include myths and stereotypes, history and literature, social and political movements, theoretical explanations, and current conditions.
WMNST 536. Gender, 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.
WMNST 553. Women and the Creative Arts (3)
Prerequisite: Three upper division units in women's studies.
Representations of women in literary, visual, and/or performing arts as well as crafts; artistic contributions of women across cultures; theories of creativity and gender. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

## WMNST 565. Women: Health, Healing, and Medicine (3)

Prerequisite: Three upper division units in women's studies.
Relationship of women to "modern" and "traditional" health care/ healing systems in historical and cultural perspective. Representations and practices regarding the politics of women's health and illness.

## WMNST 572. Women and Violence <br> (3)

Prerequisite: Three upper division units in women's studies.
Forms of violence against and by women. Processes which shape women's resistance to, and collusion in, social, economic, political, and sexual violence.
WMNST 580. Women, Development and the Global Economy
Prerequisite: Three upper division units in women's studies.
Women's roles as agents and recipients of global economic and political change focusing on women's empowerment, work, health, and the environment. Topics include women's movements worldwide and non-governmental organizations.

## WMNST 581. Women's Experiences of Migration (3)

Prerequisite: Three upper division units in women's studies.
Gender analysis of impact of international migration on women's lives. Identity formation, trauma, language, gender roles, and sexuality in life narratives of immigrant and refugee women. Economic and legal issues affecting immigrant and refugee women.

WMNST 582. Science and Technology in Women's Lives (3)
Prerequisite: Three upper division units in women's studies.
Role of science and technology in women's lives to include historical participation, contemporary opportunities and barriers; public policies; feminist critiques and alternative strategies for thinking about and doing science.

## WMNST 590. Feminist Thought (3) I

Prerequisite: Six upper division units in women's studies.
Readings of feminist theory in historical perspective, with attention to contemporary debates in feminist scholarship.
WMNST 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.

## WMNST 596. Topics in Women's Studies

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.
WMNST 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.

## WMNST 598. Women's Studies Internship (3) Cr/NC II

Prerequisite: Three upper division units in women's studies and consent of instructor.

Application of women's studies theories and scholarship to community service and activism through combination of classroom discussion and field internship. Internship includes 80 hours of work in local public and private agencies dealing primarily with women and girls. Maximum credit six units.

GRADUATE COURSES
Refer to the Graduate Bulletin.

# Special Programs and Services 

## Academic Computing

The SDSU computing environment provides access to scores of software products including World Wide Web browsers, programming languages, wordprocessing, spreadsheets, presentation packages, relational databases, statistical software, and large databases such as IMF and CRSP. The university provides access to a Sun F4800 Server (running SOLARIS). The Sun F4800 Server is available to the university community via the campus network which also links students to specialty computing centers located at other California State Universities and the San Diego Super Computer Center.

The university has over 2,000 microcomputers located in 80 departmental/college computer laboratories. There are also three large computer labs open to all students; all machines in those labs are connected to the Internet. The open computer labs are the Love Library Student Computer Center located in Love Library 200 which has PCs, Macintoshes, and laser printing as well as the Social Science Research Lab located in PSFA 140 which has PCs, Macintoshes, and laser printing.

The Baseline Access, Training and Support (BATS) program offers free hands-on computer training to the SDSU community. Workshops cover the Microsoft Office Suite (Word, Excel, PowerPoint, and Access). Adobe Photoshop, Web Page Creation, Introduction to Computers and the Windows and Macintosh Operating Systems, and more.

Student computing and e-mail accounts are available through a student account system. This system allows enrolled SDSU students to create their own accounts via the Internet from a computer or terminal on campus or via the Web from off campus.

Web site is available at http://www.sdsu.edu.

## Alumni Association

The SDSU Alumni Association is dedicated to connecting SDSU alumni to the university and each other. Membership in the San Diego State University Alumni Association is open to those individuals 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 serve and support the university and its graduates. 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 sporting events, discounts on purchases at the Aztec Store, access to SDSU's Career Services for a nominal fee, and a subscription to SDSU Magazine, a monthly electronic newsletter, and Aztec update: publications for alumni and friends of the university.

In addition, the Alumni Association sponsors The Montys (annual awards event honoring alumni of the university), provides scholarships for students, organizes Homecoming, provides input regarding university programs and policies, and provides excellent networking opportunities through a myriad of events.

For further information, a Web site is available at http:// www.sdsualumni.org or 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, alumni, and the public. Directed by elected student executives, the Associated Students offers programs ranging from recreation to
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 619-594-6555, or on the Web site at http://as.sdsu.edu.

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 college representative per 1500 students, five executive officers, and representatives from some student organizations, the Council is responsible for the A.S. $\$ 15$ million annual budget and for formulating organizational and university-wide policy. Elections held each year 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, programs, and services; 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 619-594-6555 for more details about student government programs or visit http://www.as.sdsu.edu/govt.

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 spaces, meeting and conference rooms, the Campus Information Center, the Ticket Office and businesses that include STA Travel, Postal Annex, and USE Credit Union. Aztec Center also houses the Aztec Center Food Court, a popular campus eatery and meeting place that offers a variety of food selections, and the Aztec Cafe featuring Starbucks Coffee and free live entertainment. The Aztec Center Satellite Cyber Lounge, located in West Commons, offers free computer use with Internet connection. For more information, call 619-594-6551 or visit http://www.azteccenter.sdsu.edu.

Cox Arena. Home to Aztec Men's and Women's Basketball, Cox Arena is San Diego's premier venue for everything from concerts to sporting events, family shows, conventions, conference, and corporate events. Facilities and Event Management has awarded Cox Arena the prestigious Prime Site Award for four consecutive years.

This state-of-the-art, 12,000 seat facility is complete with award winning acoustics, VIP lounges, and star dressing rooms, as well as a distinctive outdoor concourse area. On site is a full-service ticket office and TicketMaster location for events throughout California. The Cox Arena is adjacent to the Aztec Recreation Center in the heart of the SDSU campus with nearby parking for 4,000 vehicles. Call 619-594-0234 or visit http://www.cox-arena.com.

Recreation Programs. Associated Students manages SDSU's recreation and fitness programs. Offered at affordable prices, they are open to the public, as well as students, faculty, staff, and alumni.

Aztec Recreation Center (ARC). The ARC features four fullsize gyms; a 30-foot climbing wall; 21,000 square feet of cardio, aerobic, dance, and weight rooms; a TV lounge area; plus locker rooms with full towel service and saunas. Membership includes unlimited access to recreation facilities, group exercise, cardio and weight rooms, racquetball, wallyball, intramural sports, and bowling. Additional programming is offered at minimal fees with a wide variety of recreation classes such as the arts, dance and music, food and beverage, health and fitness, martial arts, horseback riding, tennis and rock climbing. Economical membership fees start at only $\$ 15.00$ per month for students. The facility is open 24 hours per day. Call 619-594-PLAY for complete schedules and membership information or visit http://www.arc.sdsu.edu.

Aztec Center Bowling and Games. This facility includes 12 bowling lanes, over 40 video games, billiards, table tennis, and leagues. Also available for parties. Call 619-594-6561 or visit http://www.arc.sdsu.edu.
Mission Bay Aquatic Center. The world's largest instructional waterfront facility, located at 1001 Santa Clara Point in Mission Bay Park, offers credit classes and recreational opportunities in surfing, sailing, windsurfing, kiteboarding, waterskiing, rowing, wakeboarding, and more. Equipment rentals and facilities for group meetings or barbecues are also available. Bus transportation from SDSU available on Transit Routes 27 and 81. Call 858-488-1000. See MBAC online at
http://www.missionbayaquaticcenter.com.
Aztec Adventures. Located in the Aztec Recreation Center, this outdoor adventure program offers camping, backpacking, rock climbing, canoeing, sea kayaking, and skiing outings. Also features excursions such as Baja whale watching, surfing safaris, and nature awareness weekends. Trips are always led by experienced guides. Most outings include transportation, food, group equipment, and all permits or fees. Call 619-5946222 for more information and trip schedules or visit http://www.aztecadventures.sdsu.edu.
Recreational Sports. An extension of the Aztec Recreation Center (ARC), Recreational Sports offers free racquetball and wallyball to ARC members. The golf driving range is available for minimal fees. Non-ARC members can participate in all programs at slightly higher prices. Recreational Sports is located at SDSU on the west end of Peterson Gym. For more information, call 619-594-6424 or visit http://www.arc.sdsu.edu.
Sports Clubs. Sports Clubs are organized, funded, and managed by SDSU students. The collective efforts and organization of the students comprising each team determine each club's success. Sports Clubs practice weekly, from two to five times per week, in preparation for organized intercollegiate competitions at local, state, regional, and national levels. Both new and experienced athletes are actively recruited. In fact, many athletes are new to their sports. Sport Club teams are an excellent setting for the development of athletic skills, student leadership skills, and social opportunities. Groups interested in starting a new club or want information on an existing club should call the ARC at 619-594-0200 or visit http:// www.arc.sdsu.edu.
Child Care Programs. Associated Students provides child care and preschool learning programs through the SDSU Children's Center. Programs range from part-time to full-time care for children ages infant to five years, with all programming provided by expertly trained teachers and staff members. For more information, call 619-594-7941 or visit http://www.sdsu.edu/as/child.

Open Air Theater and Entertainment. Located amidst the original landscaping of San Diego State University, this historic venue is ideal for watching your favorite musical group while sitting under the stars. Originally opened in 1941, this 4,800 seat amphitheatre has played host to sold out concerts, lectures, and symphony performances. Generations of guest have enjoyed this theatre's natural acoustics which complement the sound of all music genres. On site are full-service concession stands and a two-level hospitality suite, equipped with open balconies and dressing rooms. For event information, call the Aztec Center Ticket Office at 619-594-6947 or visit http://www.cox-arena.com.

## Athletics

San Diego State University sponsors a broad array of varsity intercollegiate athletics for women and men. SDSU's commitment to gender equity in athletics includes 12 sports for women (basketball, crew, cross country, golf, soccer, softball, swimming, tennis, indoor/outdoor track and field, volleyball, and water polo) and six for men (baseball, basketball, football, golf, soccer, and tennis). As a National Collegiate

Athletic Association (NCAA) Division I program, Aztec athletic teams compete at the highest level of intercollegiate competition. All of the teams except soccer compete in the 8 -member Mountain West Conference. Men's soccer is a member of the Mountain Pacific Sports Federation.

Athletics serves a number of important roles on campus and within the larger San Diego community. In addition to encouraging studentathletes to expand their competitive capabilities to the fullest, San Diego State teams provide a catalyst which helps generate pride and a shared esprit de corps among students, faculty, staff, and alumni. This also helps link these groups from generation to generation. Similarly, with nearly a hundred-thousand alumni and former students and tens of thousands of supporters in the county with no other direct connection to the university, Aztec teams frequently carry the aspirations of San Diego in the forum of NCAA Division I Athletics. On-campus athletic events attract both students and members of the community to campus and this reinforces many mutually beneficial town-gown relationships.

## Student Athlete Support Services

## Aztec Athletics Center, Room 3029, 619-594-5891

Involvement with intercollegiate athletics on campus presents many challenges for students. This office provides guidance and assistance for these student-athletes in the areas of admission, registration, new student orientation, counseling, study hall, mentoring, tutoring, and academic advising. The office also serves as a liaison between faculty and the Athletic Department. This individualized program is designed to create an academic support network to ensure all student-athletes comply with university requirements while working toward completion of a degree.

## Aztec Shops, Ltd.

## (Campus Stores, Dining Services) http://www.aztecshops.com

Aztec Shops, Ltd., founded in 1932, is a not-for-profit corporation that functions primarily as an auxiliary of San Diego State University. The corporation provides a diverse portfolio of commercial services including operation of the bookstore and dining services on campus. Aztec Shops also operates selected other enterprises at San Diego State and at other colleges and universities. The corporation employs close to 200 full-time professionals and up to 800 part-time employees - mainly students - during busiest times. Our corporate offices are located on the campus of San Diego State University.

SDSU Bookstore. The flagship of Aztec Shops' retail operations, the SDSU Bookstore is one of the largest campus bookstores in the country as measured by sales. The 25,000-square-foot facility located in the heart of campus - carries every text (required and optional) for every class taught at SDSU. The facility's "Bookstore within a Bookstore" offers an impressive selection of general-interest titles including volumes for children. The store's well-staffed special order desk is available to secure even the most hard-to-find titles. Aztec Shops is the exclusive licensee for the San Diego State University logo and related images. The SDSU Bookstore features the most extensive selection of SDSU-imprinted clothing and gifts available. The store also houses a full-service computer hardware and software department that offers significant academic discounts on the most popular systems from Sony, Toshiba, and Apple as well as the most current versions of the nation's most popular software. A broad selection of school supplies, cards, gifts and graduation regalia round out the store's offerings. For more information, call 619-594-7525.

Aztec Dining Services. Aztec Shops is responsible for all restaurants and other food service outlets on the SDSU campus. The corporation operates SDSU's Meal Plan Program which allows residence hall students to choose interesting and healthy meals from virtually any restaurant on campus. In addition to residence hall dining programs, we developed and operate our own branded restaurants such as Durango's and Vinnie's Gourmet Italian Deli in East Commons. We also contract with other restaurant operators such as McDonald's and Panda Express to provide quality food and service on campus. In addition to the varied restaurant options, Aztec Shops operates five

Aztec Market convenience stores on campus, including a 3,000-square-foot store in East Commons. All stores carry a wide variety of grab-and-go beverages, sandwiches and salads, as well as traditional convenience store items. Aztec Dining Services' Catering Department is the recognized caterer for all events on the SDSU campus. For more information, call 619-594-7640.

Other operations. Other Aztec Shops operations include:
Art Etc. - A specialty store (located in the Art Building at SDSU) which features art supplies for both amateur and professional artists.
Aztec Store - Located in San Diego's Fashion Valley Mall, the store offers Aztec team apparel and SDSU imprinted gifts.

The Campus Store - Aztec Shops operates The Campus Store, the bookstore at the SDSU branch campus in Calexico, CA.
Elderhostel - Aztec Shops runs a successful Elderhostel program that brings senior citizens from around the country to San Diego for specialized educational enrichment programs.
Montezuma Publishing - As part of its commitment to providing course materials for every class, Aztec Shops operates Montezuma Publishing which prints customized course materials and readers, securing copyright permissions when necessary.
University Towers - In November 2000, Aztec Shops purchased the well-known El Conquistador residence hall near the SDSU campus. Recently renamed University Towers, the facility is home to more than 500 students during the academic year.
Concessions - Aztec Shops operates the concession stands at Cox Arena, the Open Air Theater and Tony Gwynn Stadium.

## The Center for Bio/Pharmaceutical and Biodevice Development

## Robert Wang, Associate Director

The center focuses on education and training specifically applicable to the research, development, process development, manufacturing, and marketing of FDA regulated pharmaceutical, biologic and medical device products. Faculty and courses from departments within the Colleges of Sciences and Business Administration are integrated with the center's programs to provide students with a broad understanding of science and management issues that exist in the biomedical industry work environment. The center's programs particularly address the research and workforce needs of biotechnology companies as their initial product development projects progress from R\&D into clinical research, process development, and manufacturing. The Master of Science in Regulatory Affairs was the first degree program developed and offered by the center. This program addresses overarching legal, ethical, and regulatory requirements that impact the development, manufacturing, and commercialization of biomedical products.

A second, newer Master of Science in Biomedical Quality Systems degree program is being offered by the center. With a focus on the quality aspects of development, manufacturing, and commercialization of biomedical products, it strongly complements the regulatory affairs program and the two programs share some elective courses. Both of these programs also offer a certificate to those students interested in obtaining a foundational understanding, through successfully completing four basic courses.

Internet-based, distance teaching technologies are used to make the center's education and training programs more widely available to individuals outside of the San Diego area, and this also facilitates the training of industry professionals who often find themselves traveling worldwide on company business. The center is also engaged with regional economic development and workforce development issues and the future acquisition of new training and research facilities. The center interfaces extensively with the California State University Program for Education and Research in Biotechnology (CSUPERB). The Web site is http://interwork.sdsu.edu/cbbd/aboutus.htm.

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

Kathleen L. McGuire, Interim Executive Director

The California State University Program for Education and Research in Biotechnology (CSUPERB) is based at San Diego State University. It exists to provide a coordinated and amplified development of biotechnology research and education within the university system; to foster competitiveness both on the state and national levels; to facilitate training of a sufficient number of biotechnology technicians and scientists; to catalyze technology transfer and enhance intellectual property protection; and to facilitate the acquisition and long-term maintenance of state-of-the-art biotechnology resource facilities across the university system, such as the SDSU Microchemical Core Facility, the SDSU Macromolecular Structural Analysis Resource Center, the CSU Stanislaus Confocal Microscope Core Facility, the CSU Fullerton W. M. Keck Foundation Center for Molecular Structure, and the CSU Long Beach Facility for Elemental Micro-Chemical Analysis (FEMCA). It facilitates interdisciplinary cooperative activities among the Colleges of Sciences and Engineering, the key departments on all campuses, as well as among faculty and from a number of allied academic and research units such as bioengineering, agricultural biotechnology, environmental and natural resources, molecular ecology, and marine biotechnology. It also operates a grants program of over $\$ 2$ million annually for programmatic development, for joint corporate research ventures with industry, and faculty seed program for student research. It also serves as the official liaison between the CSU and industry, government, and the public arena in biotechnological matters. CSUPERB operates through an Executive Director, two Associate Directors, a Director of Operations and Workforce Development, a Strategic Planning Council composed of five corporate CEO's, five CSU deans of sciences, and ten faculty from the system. CSUPERB is overseen by the Presidents' Commission composed of five CSU campus presidents from San Diego State University, Humboldt State University, CSU East Bay, CSU Los Angeles, and Cal Poly, San Luis Obispo. Faculty input into the organization and its multiple activities is through a 100 member Biotechnology Faculty Consensus Group. The Web site is http://www.csuchico.edu/csuperb/.

## Center for Community Based Service-Learning (CCBSL)

The mission of the Center for Community Based Service-Learning is to enhance learning and civic responsibility through community engagement. The center serves faculty, students, and community organizations by providing a link to integrate community service programs with classwork, giving students unparalleled insight into community needs. The CCBSL is a supportive and collaborative force for the campus and the community to come together for shared endeavors and goals.

Community based learning, also known as service learning, is a form of experiential education combined with the ethic of giving back to the community. The goals of the CCBSL include assisting and supporting faculty as they make community service part of their classwork, and helping individual students and student organizations identify places where they can directly address community needs.

The CCBSL serves as a central location on campus for students, their clubs, faculty and staff to plan and implement community projects. To aid in those efforts, the CCBSL has developed several resources and services to include:

A listing of faculty and courses involved in community-based learning;

A listing of community activities meeting student volunteer or service needs;

A bank of community projects suitable for faculty to include in their courses;

A listing of grants related to community based and experiential learning;

A resource library for research, assessment, grant writing, course design, focusing upon experiential and community based learning;

A place for faculty and staff to meet to discuss service-learning curriculum;

The CCBSL is located in Career Services. For more information, contact the CCBSL at 619-594-0546 or
http://servicelearning.sdsu.edu.

## Children's Center

The SDSU Children's Center, a quality service provided by Associated Students, provides an enriched learning program for infants, toddlers, and preschool children of students, faculty, and staff while their parents are in class, studying, and/or at work. The academic school year program is designed to meet the needs of students and is only open the days school is in session for the fall and spring semesters. The year round program is designed to meet the needs of the working parents and is open year round. We observe all university holidays.

A grant from the State Department of Education, Child Development Division, pays all or partial child care fees for qualifying students' children. Tuition for all others is billed monthly and is determined by the child's classroom/age and contracted schedule.

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 classrooms are staffed by professional and student employees, volunteers, and child and family development majors. Parent participation is strongly encouraged and appreciated. Parents have the opportunity to serve on the Children's Center Board, which is composed of parents and other campus representatives.

Call 619-594-7941 or go to http://www.sdsu.edu/as/child for more information.

## Communications Clinic for Speech, Language, Hearing Disorders and Deafness

Administered by the School of Speech, Language, and Hearing Sciences, the clinic provides assessment and remediation services for SDSU students, staff, faculty, and the community. Comprehensive diagnostic and treatment programs are available for children and adults in the areas of delayed speech/language development, voice, fluency or articulation disorders, aphasia, cleft palate, cerebral palsy, loss of communication function, augmentative communication needs, 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 fitting, assistive listening device evaluations, earmolds, ear protectors, hearing conservation and speech reading/aural rehabilitation therapy. In addition, the clinic offers opportunities for research, consultation, supervised field internships, continuing education, and other service activities. The clinic is located at 6330 Alvarado Court, Suite 100, San Diego, CA 92120-4917, 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 writing competency requirement. The university requires students to demonstrate writing competency consistent with its established standards and, accordingly, requires all entering students to pass various writing competency tests. Students who fail any of these tests must enroll in appropriate developmental writing coursework in the Department of Rhetoric and Writing Studies during their first semester at SDSU. As of fall 2001, incoming freshmen have three consecutive academic semesters in which to complete developmental writing requirements.

## 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 CSU ELM and SDSU Mathematics Placement, Part IA requirements. The university requires all students to demonstrate mathematics proficiency consistent with its established standards. In particular, students who fail the ELM must enroll in the appropriate General Mathematics Studies course in their first semester at SDSU and continue until they have satisfied this requirement; students have one year only to complete this requirement.

## Honors Council

The Honors Council was formed in 1991. It comprises representatives of the Honors Program and of Golden Key, Mortar Board, Phi Beta Kappa, Phi Eta Sigma, and Phi Kappa Phi interdisciplinary honor societies.

The purposes of the Honors Council are:

- To act as an advisory and coordinating resource center for the interdisciplinary honor societies on campus;
- To promote the specific interests of the above listed honor societies;
- To promote the common concerns of all honor societies and honors programs at San Diego State University;
- To cooperate with the faculty and administrative officers in developing and maintaining high academic standards;
- To recognize students and faculty for their achievements in scholarship, leadership, and service;
- To recognize graduating seniors who are active members of all five university-wide honor societies.
For meetings and events and to house honors insignia and regalia, the Honors Council has the Henry L. Janssen Honors Council Room in Library and Information Access, Love Library, Room 428D.


## 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. Honor societies have the use of the Darlene Gould Davies Honors Study, located in Library and Information Access, Love Library, Room 428A.

## Multidisciplinary Academic Honor Societies

Golden Key is a national and worldwide 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 International Honor Society has over 300 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 in the upper 15 percent of their classes who have completed their last 24 units at SDSU. Elected student officers set all agendas and direct activities.

The faculty adviser is Dr. Edith J. Benkov, Department of European Studies. For more information, visit
http://www-rohan.sdsu.edu/~gknhs/index.htm
Mortar Board, a national honor society for college seniors, was founded in 1918. The society recognizes in its membership the qualities of superior scholastic ability, outstanding and continual leadership, and dedicated service to the university community. The SDSU
chapter of Mortar Board had its beginning in 1932 as Cap and Gown. In 1965 the local honorary was recognized as a member of the national organization. Nationwide there are over 200 active chapters with a membership in excess of 200,000. At the 2005 National Conference, the SDSU Chapter received the Golden Torch Award which is the highest award given to chapters. They also received Chapter of Excellence Awards for four of their projects.

Mortar Board membership means active involvement to benefit the campus and community. Current projects include support of philanthropy projects related to literacy, awarding of scholarships, presentation of annual emeritus faculty and staff Outstanding Service Awards to recognize individuals whose work contributed significantly to this university; an annual faculty/staff appreciation dinner; support of activities and projects of the San Diego Alumni Chapter; and the sale of the Mortar Board Daily Planner and Calendar of Events - a daily planner and calendar of events 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 must 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 for the honor society are Dr. Ronald R. Young, Associate Professor Emeritus of Spanish and Kathleen Ross, former Scholarship Director. The administrative liaison is Dr. Jane K. Smith, Assistant Vice President for Academic Services (AD-220). Information is available at http://mortarboard.sdsu.edu/.

Phi Beta Kappa, founded in 1776, is the oldest national honor society in America. Its 270 chapters recognize academic excellence in the liberal arts and sciences. In 1974, Nu Chapter of California was established at SDSU, the first CSU campus to be so honored. Juniors and seniors considered for membership each Spring are usually enrolled in the College of Arts and Letters or the College of Sciences and are or will be eligible for the bachelor of arts or bachelor of science degree. Juniors must have a GPA of at least 3.75, and seniors must have a GPA of at least 3.50. Juniors and seniors must have a GPA of at least 3.50 in liberal arts and sciences courses. These GPAs must be maintained with minimal use of $\mathrm{Cr} / \mathrm{NC}$. All candidates must have demonstrated university proficiency in mathematics and in a foreign language at the third-semester level. In addition, juniors must have completed at least 75 units of liberal arts and sciences courses, and seniors must have completed at least 45 liberal arts and sciences units at SDSU and must have demonstrated university proficiency in written English by coursework or satisfaction of the Graduation Writing Assessment Requirement. Finally, candidates must show significant depth and breadth of scholarly interests by the number, variety, and rigor of upper division courses taken outside the major. Membership is by invitation only. Election, after careful examination of the student's record, is by vote of the chapter members.

Chapter activities include the annual initiation, at which several scholarships are awarded; the annual Phi Beta Kappa Lecture honoring an outstanding faculty member; lectures by visiting scholars; participation on the University Honors Council; supportive interaction with local schools; and cooperation with Epsilon Association, San Diego's alumni chapter of Phi Beta Kappa. Chapter president is Dr. Ronald J. Angione, Department of Astronomy. For general information consult http://www.pbk.org.

Phi Eta Sigma is a national freshman honor society. The national chapter was formed 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 300 chapters throughout the United States and more than 500,000 members.

All freshmen, both men and women, who have a cumulative grade point average of at least 3.50 on a 4.0 scale with at least 12 units at the close of either semester during their freshman year are eligible to join. Students who were eligible but missed induction after their freshman year may join at any time thereafter.

Among its activities are induction ceremonies, community service involvement, social events, and national conventions.

The adviser for the honor society is Dr. Jung Choi, Director of University Honors Program. For more information, call 619-594-2872.

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 scholarships annually for graduate education of outstanding students, 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. The society offers literacy grants, study abroad grants, and research grants for scholarly work. Nationally there are almost 300 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 and be in the top 7-1/2 percent of their class at SDSU; seniors must have completed a minimum of 90 units and be in the top 10 percent of their class at SDSU; graduate students must have completed a minimum of 15 units of graduate work at SDSU and be in the top 10 percent of their class. All prospective members must have made satisfactory progress toward the degree.

President of the society is Dr. Sandra A. Cook, Executive Director for Enrollment Services.

## Discipline-Based 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 (Pre-Medical)
Alpha Kappa Delta (Sociology)
Beta Alpha Psi (Accountancy)
Beta Gamma Sigma (Business)
Chi Epsilon (Civil Engineering)
Eta Sigma Phi (Classics)
Honors Council (General)
Kappa Delta Pi (Education)
Lambda Pi Eta (Communication)
Omicron Delta Epsilon (Economics)
Phi Alpha Theta (History)
Phi Beta Delta (International Scholars)
Phi Mu Alpha Sinfonia (Music)
Pi Delta Phi (French)
Pi Kappa Lambda (Music)
Pi Sigma Alpha (Political Science)
Pi Tau Sigma (Mechanical Engineering)
Psi Chi (Psychology)
Sigma Delta Pi (Spanish)
Sigma Gamma Tau (Aerospace Engineering)
Sigma Tau Delta (English)
Sigma Theta Tau (Nursing)
Tau Beta Pi (Engineering)

## Instructional Technology Services

Instructional Technology Services (ITS) provides support to faculty in the design, selection, production, and distribution of instructional technology. Service and support are provided in three key areas: Instructional Resources and Technology Systems, Instructional Development, and Multimedia Production.

Instructional Resources provides support in the selection, use, and distribution of instructional materials and equipment. Services include consultation on selection and use of media and equipment for
instruction; checkout of media and equipment for classroom use; acquisition of new videotapes, DVD's and CD-ROM's for instructional use; online access to an instructional media collection containing more than 8,000 titles; and maintenance and repair of audiovisual equipment. Technology Systems provides support in the design, installation, operation, and maintenance of instructional systems in classrooms. Services include the design, installation, and maintenance of Smart Classroom systems and basic audiovisual systems; operation of the campus closed-circuit television system; operation of videoconferencing systems for instructional and administrative use; satellite downlink and off-air recording services; and operation of a presentation room for high-quality video and data projection. The ITS Experimental Classroom is designed to support faculty who wish to experiment with teaching strategies involving the use of new and emerging instructional technologies. It is a location on campus for conducting research aimed at measuring and documenting the use of technological tools to improve teaching and learning.

The Instructional Development program offers professional assistance in instructional design, course design, teaching techniques, and assessment. Services include: assistance in development of instructional materials; assessing and selecting instructional methods; facilitating course design; workshops on teaching skills and techniques; and a facility for faculty to produce their own instructional media and to learn about new technologies. The B.A.T.S. initiative (Baseline Access, Training and Support) provides instruction to faculty, staff, and students in the use of computer hardware and software through a full schedule of workshops held in hands-on computer labs and through Help Desks staffed by instructional computing consultants. In addition, courseware development specialists are available to assist faculty with the Blackboard web-based course delivery system.

Multimedia Production assists in the design and production of instructional and research materials, as well as other university-related materials. Services include development and production of instructional videotapes; graphic and photographic support of instruction, research and publication; and assistance in development of multimedia materials including CD-ROM's, DVD's, and instructional Web sites.

## Office of International Programs

In recognition of the rapidly expanding number and importance of international activities on the San Diego State University campus, the Office of International Programs has specific responsibility for coordinating and facilitating the development of the diverse international programs and activities of the university. The Office of International Programs is the primary contact for international programs and represents the university on international matters to external agencies and institutions. The Office of International Programs coordinates all international faculty and student programs and 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 exchanges with partner universities worldwide. Currently, the university has formal arrangements to exchange faculty periodically with universities across the globe. 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 also sponsors semester abroad, dual degree programs, and travel-study programs. SDSU has also entered into special institutional arrangements with selected universities that provide both undergraduate and graduate students the opportunity for study, research, and internships abroad. Currently San Diego State University has student agreements with many international partners. SDSU's International

Student Center assists students who wish to participate in an exchange or other SDSU program. For detailed information, contact the International Student Center at 619-594-1982.

For more information about the university's international programs, contact the Office of International Programs, 619-594-1354. E-mail: oip@mail.sdsu.edu or visit our Web site at http://oip.sdsu.edu.

## Navy Officer Programs and Scholarships

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

Baccalaureate Degree Completion Program. Sophomores, juniors and seniors who qualify can earn up to $\$ 1,800$ each month while they finish their last one, two or three years of college - no uniforms or drill required. Scholarships are available to sophomores, juniors and seniors in all majors who have a 2.7 grade point average or above. Positions in aviation, surface warfare, business management, personnel management, and information systems is guaranteed after college graduation.

Navy Engineering Programs. Scholarships are available to students in technical majors who have at least a 3.0 grade point average. Those who are interested and qualified receive more than $\$ 1,700$ each month plus benefits while they finish their last one or two years of undergraduate study. The scholarship leads to a position as an instructor, research or operating engineer for the Navy, and a commission as a naval officer.

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

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

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

Students are encouraged to seek information and plan ahead if they are interested in adding any of these programs to their career options. More information on all programs is available by calling or writing to the Officer Programs Office, NRD San Diego, ASW Base, Bldg. 2, 33055 Nixie Way, San Diego, CA 92147-5192, 619-524-6760.

## Parking and Transportation

When possible, carpooling or use of alternate modes of transportation is recommended for the commute to campus.

Metropolitan Transit System's Green Line trolley and six bus routes $(11,13,81,115,936,955)$ conveniently connect the San Diego metropolitan area with service to the San Diego State University Trolley Station and Transit Center. Semester and monthly trolley and bus passes can be purchased at the Aztec Center Ticket Office.

Further information concerning Metropolitan Transit trolley and bus routes, fares, services, and SchoolPool carpool registration is available at 1-800-COMMUTE or http://www.sdcommute.com and http:// www.ridelink.org.

On-campus parking is by permit only and overnight parking requires an additional permit. Purchase or possession of a parking permit does not guarantee a parking space; and, overnight parking is limited and available on a first come, first serve basis. Parking structures and surface lots are located on the perimeter of the campus, with remote parking lots serviced by free shuttle buses weekdays during the academic year. Major events at Cox Arena may require parking location adjustment.

Visitors are directed to the Parking Information Booth at the College Avenue entrance to the campus for directions to several available pay parking lots. For further information on parking at the San Diego campus, contact the Department of Public Safety, 619-5946671. For visitor parking at the Imperial Valley Campus, call 760-7685500.

## San Diego State University Research Foundation

San Diego State University Research Foundation was incorporated in 1943 as an auxiliary organization authorized by the Education Code of the State of California. It is a nonprofit corporation, selffinanced, and chartered to augment the educational, research, and community services objectives of the university. San Diego State University Research Foundation serves the university in the following major areas:

Working with faculty and staff to develop and administer grants and contracts and community-service programs;
Developing and administering major centers, institutes, community partnerships, and programs;
Administering a technology transfer program;
Administering student scholarship, loan funds, and financially managing and investing gifts, trusts and endowments, most on behalf of the university's philanthropic foundation;
Acquiring, developing, and managing real property to support sponsored programs;
Assisting in the management functions of KPBS radio and television stations;
Providing resources to develop new and support existing SDSU faculty sponsored projects, including funds for faculty grants-in-aid, research faculty recruitment, joint doctoral programs, research equipment, and other costs related to advancing the university's research agenda.
San Diego State University Research 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. 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 the journals Fiction International and Poetry International.

San Diego State University Press imprint is controlled by an editorial committee of scholars, appointed by the provost and the senate. Financial accounting and coordination are provided by the San Diego State University Research Foundation.

## Semester Study Abroad Programs

## London Semester Academic Program

The London Semester academic program operates through a consortium of CSU campuses. It offers students the opportunity to study for a semester in London, while earning SDSU resident credit. Courses satisfying General Education requirements are taught by SDSU and other CSU faculty. To be eligible, students must be sophomores, juniors, or seniors in good academic standing. For further information, contact Carole Putko in the Department of History, Arts and Letters, Room 580.

## Madrid Semester Academic Program

The Madrid Semester academic program is administered by the Department of Spanish and Portuguese. This program offers students the opportunity to study the Spanish language and culture in Spain for four months and to live in Madrid. Open to SDSU and other California State University students in good standing who have completed at least three college semesters of Spanish (or equivalent). Most courses taught by faculty of the Center for Spanish Studies at Antonio de Nebrija University. Living accommodations with Spanish-speaking families throughout Madrid. Students earn 12-15 SDSU resident units toward the bachelor's degree. SDSU financial aid may be available to qualified students. For further information, contact the Department of Spanish and Portuguese Languages and Literatures, Arts and Letters, Room 134.

## Paris Semester Academic Program

The Paris Semester academic program is administered by the Department of European Studies. It offers students the opportunity to study for a semester in Paris, while earning 12-15 units of SDSU resident credit. Courses satisfying General Education, French, and International Business requirements are taught by SDSU and Paris-based faculty. To be eligible, students must be sophomores, juniors, or seniors in good academic standing with a minimum of two college semesters of French. For further information, contact the Department of European Studies, Business Administration, Room 304.

## Veterans Affairs

## Office of the Registrar

## Student Services, Room 1641

## Telephone: 619-594-5813

Veterans Affairs is located in the Office of the Registrar. Students who are eligible for veteran, dependent, or reservist V.A. education benefits should visit SDSU's Veterans Affairs Office (VAO). Services available through the Veterans Affairs Office include assistance in applying for education benefits, administration of the Cal Vet Fee Waiver program, 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 to be advised on how to file for benefits. For additional information about the services provided, please telephone or visit the office.

## University Policies

## 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 "University Policies" 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. It is not possible in this publication to include all of the rules, policies, and other information that pertain to students, 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 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. 1232 g ) and regulations adopted thereunder (34 C.F.R. 99) set out requirements designed to protect students' privacy in their records maintained by the campus. The statute and regulations govern access to certain student records maintained by the campus and the release of such records. The law provides that the campus must give students access to records directly related to the student, and must also provide opportunity for a hearing to challenge the records if the student claims they are inaccurate, misleading, or otherwise inappropriate. The right to a hearing under this law does not include any right to challenge the appropriateness of a grade determined by the instructor. The law generally requires the institution to receive a student's written consent before releasing personally identifiable data about the student. The institution has adopted a set of policies and procedures governing implementation of the statutes and the regulations. Copies of these policies and procedures may be obtained at the Office of the Provost.

Among the types of information included in the campus statement of policies and procedures are: (1) the types of student records maintained and the information they contain; (2) the official responsible for maintaining each type of record; (3) the location of access lists indicating persons requesting or receiving information from the record; (4) policies for reviewing and expunging records; (5) student access rights to their records; (6) the procedures for challenging the content of student records; (7) the cost to be charged for reproducing copies of records; and (8) the right of the student to file a complaint with the Department of Education. The Department of Education has established an office and review board to investigate complaints and adjudicate violations. The designated office is: Family Policy Compliance Office, U.S. Department of Education, Washington, D.C. 20202-4605.

The campus is authorized under the Act to release "directory information" concerning students. The Office of the Registrar releases the following: student's name, major field of study, dates of attendance, degrees, honors, and awards received. Although federal law allows for the release of address, telephone listing, electronic mail address, photograph, place and date of birth, grade level, enrollment status, previous educational institution attended, and information related to participation in athletics, San Diego State University has a practice of not routinely releasing this information. 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 what information the student requests not be released. Students are given an opportunity to restrict the release of "directory information" about themselves by accessing http://www.sdsu.edu/portal.

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 have responsibilities in the campus' academic, administrative or service functions and have reason for accessing student records associated with their campus or other related academic responsibilities. Student records may also be disclosed to other persons or organizations under such conditions as part of accreditation or program evaluation; in response to a court order or subpoena; in connection with financial aid; or to other institutions to which the student is transferring.

## Nondiscrimination Policy

The Office of the Ombudsman, 619-594-6578, and the Office of Diversity and Equity, 619-594-6464, have been designated to coordinate the efforts to comply with the following acts and their implementing regulations.

## Race, Color, and National Origin

San Diego State University complies with the requirements of Title VI and Title VII of the Civil Rights Act of 1964, as well as other applicable federal and state laws prohibiting discrimination. No person shall, on the basis of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in any program of the California State University.

## Disability

San Diego State University does not discriminate on the basis of disability in admission or access to, or treatment or employment in, its programs and activities. Sections 504 and 508 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and various state laws prohibit such discrimination. Students should address inquiries concerning San Diego State University's compliance with all relevant disability laws to the Director of Disabled Student Services, Student Services, Room 1661, San Diego State University, CA 92182 or call 619-594-6473.

## Sex/Gender

San Diego State University does not discriminate on the basis of sex or gender in the educational programs or activities it conducts. Title IX of the Education Amendments of 1972 and certain other federal and state laws prohibit discrimination on the basis of sex or gender in education programs and activities. Such programs and activities include admission of students and employment. Inquiries concerning the application of these laws to programs and activities can be directed to the director, Office of Diversity and Equity, 619-594-6464, or to the SDSU assistant athletic director of compliance, 619-5940394, or to the regional director of the Office of Civil Rights, Region IX, 50 United Nations Plaza, Room 239, San Francisco, CA 94102.

The California State University is committed to providing equal opportunities to male and female CSU students in all campus programs, including intercollegiate athletics.

## Sexual Orientation

By CSU board of trustees policy, San Diego State University does not discriminate on the basis of sexual orientation.

## Immigration Requirements for Licensure

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (P.L. 104-193), also known as the Welfare Reform Act, includes provisions to eliminate eligibility for federal and state public benefits for certain categories of lawful immigrants as well as benefits for all illegal immigrants.

Students who will require a professional or commercial license provided by a local, state, or federal government agency in order to engage in an occupation for which the CSU may be training them must meet the immigration requirements of the Personal Responsibility and Work Opportunity Reconciliation Act to achieve licensure.

## Grades

## Definition of Grades for Undergraduate Students

Grades and grade points per unit used in reporting are as follows: Grade of $\mathbf{A}$ (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; $\mathbf{F}$ (failing), 0 points; RP (report in progress), not counted in the grade point average; $\mathbf{W}$ (withdrawal), not counted in the grade point average; $\mathbf{A U}$ (audit), no credit earned and not counted in the grade point average; $\mathbf{C r}$ (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 be changed to an IC (incomplete charged) and will count as an "F" for grade point average computation; WU (withdrawal unauthorized), will count as an "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 $\mathbf{A}$ (outstanding achievement; available for the highest accomplishment), 4 points; B (average; awarded for satisfactory performance), 3 points; $\mathbf{C}$ (minimally passing), 2 points; D (unacceptable for graduate credit, course must be repeated, 1 point; $\mathbf{F}$ (failing), 0 points; RP (report in 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; $\mathbf{C r}$ (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 be changed to an IC (incomplete charged) and will count as an "F" for grade point average computation; WU (withdrawal unauthorized), will count as an "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:

$$
\begin{array}{lll}
\mathrm{A}=4.0 & \mathrm{C}+=2.3 & \mathrm{D}-=0.7 \\
\mathrm{~A}-=3.7 & \mathrm{C}=2.0 & \mathrm{~F}=0 \\
\mathrm{~B}+=3.3 & \mathrm{C}-=1.7 & \mathrm{WU}=0 \\
\mathrm{~B}=3.0 & \mathrm{D}+=1.3 & \mathrm{I}=0 \\
\mathrm{~B}-=2.7 & \mathrm{D}=1.0 & \mathrm{IC}=0
\end{array}
$$

Faculty members use all grades from $A$ through $F$ to distinguish among levels of academic accomplishment. The grade for average undergraduate achievement is C .

## Report in Progress Grade-"RP"

The "RP" 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 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). Graduate courses for which the "RP" symbol is appropriate are specifically designated in the departmental listings of the Graduate Bulletin.

Candidates for graduation whose record carries a grade of RP will be graduated provided they are otherwise eligible for graduation. However, the RP cannot be made up after the degree has been granted. If students do not wish to be graduated with the grade of RP on their record, they must officially cancel their application for graduation.

## Withdrawal Grade - "W"

The symbol "W" indicates that you were permitted to drop a course after the first 15 class days of the semester because of a verified serious and compelling reason, and you have 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 first 15 class days, the grade of "W" will appear on your permanent record for courses which an official drop has been approved.

Dropping a class is not permitted after the 15th class day of the semester by 6:00 p.m., except in cases such as accident or serious illness where the cause of dropping the class is due to circumstances clearly beyond your 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 your grade status in the class, and approved by the dean or designee of the college of your major.

After the last day of the semester, if you wish to change assigned grades to "W" grades you 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 your 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 your major may authorize the change of "WU" 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. Units taken for audit are not used in the calculation of enrollment status. To enroll as an auditor, obtain the Change to Audit Grade form from the Office of the Registrar. Obtain instructor approval and return the completed form by 6:00 p.m. on or before the 15th class day of instruction to the Office of the Registrar. Once enrolled as an auditor, you may not change to credit status unless such a change is requested by 6:00 p.m. prior to the end of the 15th class day of instruction. If you are enrolled for credit, you may not change to audit after the end of the 15th class day of instruction by 6:00 p.m.

## 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 ( $\mathrm{Cr} / \mathrm{NC}$ ), whether taken at this or at another institution, may not be used to satisfy requirements for your 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 I. Communication and Critical Thinking and II. Foundations A. 4 Mathematics/Quantitative Reasoning sections 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 your admission may be used. If 15 or more units graded credit/no credit are transferred, you may not use 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 you are required to take an SDSU course on a credit/no credit basis.
4. Units for courses required for graduation which are offered for $\mathrm{Cr} / \mathrm{NC}$ only will not be counted as part of the 15 elective units of $\mathrm{Cr} / \mathrm{NC}$ 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, you 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 through the SDSU WebPortal on or before the 15th day of instruction by 6:00 p.m. 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 you 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 "l" (incomplete authorized) indicates that a portion of required coursework 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 your responsibility 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 you 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 you 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 you maintain continuous enrollment. Failure to complete the assigned work within one calendar year will result in an Incomplete being converted to an "IC" symbol, which would replace the "l" in the student's record at the end of the calendar year deadline. After one calendar year, the only way you 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 your record must provide an accurate and complete accounting of your academic history, the notation of "Incomplete" will remain on the record.

An incomplete may not be made up after you have graduated.

## Incomplete Charged Grade - "IC"

The symbol "IC" (incomplete charged) may be used when a student who received an authorized incomplete "I" has not completed the required coursework within the allowed time limit. The "IC" is posted to the record at the end of the one year time limit and is counted as a failing grade for grade point average and progress point computation.

## Withdrawal Unauthorized Grade - "WU"

The symbol "WU" indicates that you enrolled in a course, 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 possible a normal evaluation of academic performance. For purposes of grade point average computation, this symbol is equivalent to an " $F$." If the student attended a portion of a course and then, after receiving failing grades, stopped attending without officially withdrawing, a final grade of " F " not "WU" should be assigned.

## 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 be charged as an IC (incomplete charged) grade and will count as an "F." The minimum GPA for a bachelor's degree is 2.0 (C); in other words, you must have earned at least twice as many grade points as units attempted.

## Good Standing

Academic standing for undergraduate students at San Diego State University is determined by the grade point average a student earns in university areas. At the undergraduate level, good academic standing means that the student has an overall cumulative GPA and an SDSU cumulative GPA of 2.0 or better. (Students should note that in order to graduate, they also need a GPA of 2.0 in the major.)

## Repeated Courses

Course "Forgiveness" and Course Repeat Policy: Undergraduate students are subject to the following conditions and requirements. If you receive a grade of C- or lower (fewer than 2.0 grade points per unit), you 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 you no longer qualify for admission to a course.

1. In the semester in which you are repeating a course for which you want an earlier grade "forgiven," you must file a Course Forgiveness Form in the Office of the Registrar. While the original grade(s) will remain on your record, 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 fivecourse 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, you are prohibited from repeating those courses.
5. The only courses which may be repeated Credit/No Credit are those in which you 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 your 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 term and to courses repeated through Open University during summer term, fall and/ or spring semesters.
8. If courses with $C$ - or lower grades are repeated without appropriate notification having been filed 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 you 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.
10. Course "forgiveness" is only applicable to undergraduate students pursuing a first bachelor's degree.

## Assignment of Grades and Grade Appeals

1. Faculty have the right and responsibility to provide 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. If you believe that an appropriate grade has not been assigned you should first seek to resolve the matter with the instructor of record. If the matter cannot be resolved informally, you may present the case to the appropriate campus entity, have it reviewed and, where justified, receive a grade correction.
4. It is your 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 you have graduated, no grade change will be considered.

## 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, except 997, are reserved for graduate courses in certain professional curricula as part of advanced certificate, credential, and licensure programs and are specifically intended for students admitted to the university with postbaccalaureate classified standing. Undergraduate students may enroll in these courses only if they are officially admitted to a blended or integrated program where undergraduate and credential coursework is included in the same program. Courses numbered at the 900 level are not applicable to other graduate programs.

Courses numbered 397 offered in regular sessions are professional advancement training or tutorial/discussion classes that accompany other credit courses and are not acceptable towards an undergraduate or graduate degree.

Courses numbered X-01 through X-79 and X-397 are Extension professional development units offered only through Extension to meet specific academic needs of community groups and are not acceptable toward an undergraduate or graduate degree.

## Undergraduate Enrollment in 600-, 700-, and 800 -Numbered Courses

1. You must obtain permission of the instructor.
2. You 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.
4. Undergraduate students must complete a petition for request to enroll which is available in the Division of Graduate Affairs.

## Final Examinations

No final examination shall be given to individual students before the regular time. If you find it impossible to take a final examination on the date scheduled you 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 through 599). 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 500numbered 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 Division of Graduate Affairs and must be submitted to the Office of the Registrar by the end of the third week of classes of the semester or term in which the concurrent credit is earned, and you 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 term by seniors admitted to the College of Education who meet all of the following qualifications:

1. Have a minimum grade point average of 2.85 on the last 60 units attempted.
2. Complete coursework in excess of graduation requirements during the semester (or summer term) when graduation occurs.
3. Attempt no more than 21 units during the final undergraduate semester.
4. Request no more than a maximum of 12 units of $300,400,500$, or 900-numbered courses for postbaccalaureate credit.
5. Submit petition before the end of the first week of classes of the final undergraduate semester (or term) when graduation occurs.
6. Petition the assistant dean of the College of Education.
7. Graduate at the end of the semester (or summer term) the petition is made.
Extension courses are not acceptable for concurrent postbaccalaureate credit. Concurrent postbaccalaureate credit will not be granted retroactively.

Petition forms are available in the Office of the Registrar, SS-1641.

## 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, except 997, are reserved for graduate courses in certain professional curricula as part of advanced certificate, credential, and licensure programs and are specifically intended for students admitted to the university with postbaccalaureate classified standing. Courses numbered at the 900 level are not applicable to other graduate programs.

Courses numbered X-01 through X-79 and X-397 are Extension professional development units offered only through Extension to meet specific academic needs of community groups and are not acceptable toward an undergraduate or graduate degree.

## Academic Credit Through Examination

San Diego State University grants credit for passing scores on The College Board Advanced Placement Examinations, on certain tests in the College-Level Examination Program, and on Higher Level subjects in the International Baccalaureate program. It also grants credit for locally administered "credit by examination" tests. A total of 30 units will be allowed for credit earned through examination (excluding Advanced Placement). The details in each case are provided below.

| 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. <br> 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 Advising and Evaluations. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| GENERAL EXAMINATIONS <br> (Paper \& Pencil Testing through June 2001) |  |  |  |  |
| EXAMINATION PAS |  | MAXIMUM CR GRANTED | IT | general education CREDIT |
| Natural Science |  | 6 units |  | nits in life science nits in physical science |
| Social Science |  | 6 units |  | nits in social science nits in history |
| Humanities |  | 6 units |  | nits in literature nits in fine arts |
| Mathematics |  | 3 units |  | ne. |
| SUBJECT EXAMINATIONS <br> (Paper \& Pencil Testing through June 2001) |  |  |  |  |
| EXAMINATION | PASSING SCORE | MAXIMUM CREDIT GRANTED | SDSU COURSE EQUIVALENT | GENERAL EDUCATION CREDIT GRANTED |
| College Algebra/ Trigonometry | 49 | 3 units | MATH 141 | Yes |
| Calculus with Elementary Functions | 51 | 3 units | MATH 121 | Yes |
| General Chemistry | 48 | 3 units | CHEM 200 | Yes |
| SUBJECT EXAMINATIONS <br> (Computer Based Testing [CBT] beginning July 2001) |  |  |  |  |
| GENERAL EDUCATION CREDIT |  |  |  |  |
| EXAMINATION | PASSING SCORE | CREDIT GRANTED | SDSU COURSE EQUIVALENCY | GENERAL EDUCATION CREDIT |
| College Algebra/ Trigonometry | 50 | 3 units | MATH 141 | Yes |
| Calculus | 50 | 3 units | MATH 121 | Yes |
| Chemistry | 50 | 3 units | CHEM 200 | Yes |
| Humanities | 50 | 6 units |  | 3 units in literature 3 units in fine arts |
| Mathematics, College | 50 | 3 units |  | None |
| Natural Sciences | 50 | 6 units |  | 3 units in life sciences <br> 3 units in physical sciences |
| Social Sciences and History | 50 | 6 units |  | 3 units in social science 3 units in history |


| Advanced Placement Credit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| EXAMINATION | $\begin{aligned} & \mathrm{S} \\ & \mathrm{C} \\ & \mathrm{O} \\ & \mathrm{R} \\ & \mathrm{E} \end{aligned}$ | Semester units credit allowed toward degree | SDSU course equivalents* | REMARKS |
| Art History ................................... | 3, 4, 5 | 6 | Art 258 and 259 |  |
| Art, Studio: |  |  |  |  |
| Drawing. | 3, 4, 5 | 3 | Art 100 |  |
| 2D Design. | 3, 4, 5 | 3 | Art 101 |  |
| 3D Design ............................... | 3, 4, 5 | 3 | Art 103 |  |
| Biology.. | 3, 4, 5 | 6 | Biology 100,100L and 2 units of Biology 299 |  |
| Chemistry ................................... | 3, 4, 5 | 6 | Chemistry 200, 201 |  |
| Classics: |  |  |  |  |
| Latin Literature | 3, 4 | 5 | Classics 202L | If both examinations are passed with |
| Vergil. | 5 | 6 | Classics 202L and 303L**** | scores of 5, additional 3 units credit |
|  | 3, 4 | 5 | Classics 202L | for Classics 304L will be provided. |
|  | 5 | 6 | Classics 202L and 303L**** |  |
| Computer Science |  |  |  |  |
|  | 3 | 3 | Computer Science 299 |  |
|  | 4, 5 | 3 | Computer Science 107 |  |
| $A B^{* *}$ | 3 | 6 | Computer Science 107 and 3 units of Computer Science 299 |  |
|  | 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....................... | 5 | 6 | Rhetoric and Writing Studies 100 and 200 | Exempts from CSU English Placement |
|  | 3,4 | 6 | Rhetoric and Writing Studies 100 and 3 units of Rhetoric and Writing Studies 299 | Test and satisfies Writing Competency. |
| Lit. and Comp. ......................... | 3, 4, 5 | 6 | English 220 and Rhetoric and Writing Studies 100 |  |
| Environmental Science ................. | 3, 4, 5 | 6 | Environmental Sciences 100 and 3 units of Environmental Sciences 299 | Satisfies three units of electives. |
| French Language ........................ | 3 | 6 | French 201 and 210 | Satisfies the language |
|  | 4,5 | 6 | French 220 and 221 | requirement. |
| French Literature ......................... | 3, 4, 5 | 6 | French 305A and 305B |  |
| Geography: |  |  |  |  |
| Human Geography .................... | 3, 4, 5 | 3 | Geography 102 |  |
| German Language ...................... | $3$ | $3$ | German 202 | Satisfies the language |
|  | $4,5$ | $8$ | German 205A and 205B | requirement. |
| History: |  |  |  |  |
| United States .......................... | 3, 4, 5 | 6 | History 109 and 110 | Satisfies American History/Institutions and Ideals, and U.S. Constitution requirements. Does not satisfy Calif. government requirement. |
| European................................. | 3, 4, 5 | 6 | History 106 and 3 units of History 299 |  |
| World History ........................... | 3, 4, 5 | 3 | History 101 |  |
| Mathematics: |  |  |  |  |
| Calculus AB ............................. | 3, 4, 5 | 4 | Mathematics 150 | Exempts from CSU Entry Level |
| Calculus BC ............................. | 3, 4, 5 | 6 | Mathematics 150 and 151 | Mathematics Test. |
| Calculus AB and BC ................. | 3, 4, 5 | 9 | Mathematics 150 and 151 |  |
| Music Theory .............................. | 3, 4, 5 | 6 | Music 205A-205B*** |  |
| Physics: |  |  |  |  |
| B............................................ | 4, 5 | 3 | Physics 180A |  |
| C (Mechanics) ......................... | 4,5 | 3 | Physics 195 |  |
| Political Science |  |  |  |  |
| Govt./Politics: United States ....... | 3, 4, 5 | 6 | Political Science 101 and 102 | Satisfies American History/Institutions |
| Govt./Politics: Comparative ........ | 3, 4, 5 | 6 | Political Science 101 and 102 | and Ideals, and U.S. Constitution |
| Govt./Politics: United States and Comparative | 3, 4, 5 | 12 | Political Science 101, 102, 103, 296 | requirements. Does not satisfy Calif. government requirement. |
| Psychology ................................. | 3, 4, 5 | 3 | Psychology 101 |  |
| Spanish Language . | 3 | 6 | Spanish 103 and 211 | Satisfies the language |
|  | 4,5 | 6 | Spanish 202 and 212 | requirement. |
| Spanish Literature......................... | 3, 4, 5 | 6 | Spanish 405A-405B |  |
| Statistics ................................... | 3, 4, 5 | 3 | Statistics 250 | Exempts from CSU Entry Level Mathematics Test. |

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| International Baccalaureate Credit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| EXAMINATION | $\begin{array}{lr}\text { S } & \text { S } \\ \text { C } & \text { unit } \\ \text { O } & \\ \text { R } & \\ \text { E } & \end{array}$ | mester <br> s credit <br> lowed <br> ward <br> gree | SDSU <br> course equivalents* | REMARKS |
| Art/Design ................................. | Higher 4-7 | 6 | See department. |  |
| Biology.. | Higher 4-7 | 6 | Biology 100 and 100L | Two additional units of Biology 299. |
| English A1.................................. | Higher 4-7 | 6 | English 220 and Rhetoric and Writing Studies 100 | Exempts from CSU English Placement Test and satisfies Writing Competency. |
| French ....................................... | Higher 4-7 | 6 | French 220 and 221 | Satisfies Language Graduation Requirement and lower division prerequisites. |
| Geography ................................ | Higher 4-7 | 6 | Geography 101 and 102 |  |
| German .................................... | Higher 4-7 | 6 | German 202 and 205B | Satisfies Language Graduation Requirement and lower division prerequisites. |
| History of the Americas ................ | Higher 4-7 | 6 | History 115 and 116 | Satisfies American Institutions, except California government. |
| Spanish A2 ................................ | Higher 4-7 | 6 | Spanish 202 and 212 | Satisfies the Language Graduation Requirement and lower division prerequisites. |
| Spanish B | Higher 4-7 | 6 | Spanish 202 and 212 | Satisfies Language Graduation Requirement and lower division prerequisites. |
| Theatre Arts .............................. | Higher 4-7 | 6 | See department adviser. |  |
| *Credit may not be earned at SDSU for courses which duplicate credit already allowed for examinations as listed under SDSU course equivalents. |  |  |  |  |

## 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 will be granted up to six semester units (nine quarter units) of 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, you should contact the Office of Advising and Evaluations.

The Advanced Placement Credit table in this section of the catalog 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 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). See the Academic Credit Through Examination table in this section of the catalog.

## 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, you must request that your International Baccalaureate transcript of grades be sent to San Diego State University's Office of Advising and Evaluations.

The International Baccalaureate Credit table identifies established course equivalencies. Subject examinations not listed in the table will be evaluated for appropriate course credit by the departmental adviser.

## 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 $\mathrm{Cr} / \mathrm{NC}$ may be awarded instead of a letter grade; a maximum of 15 total Cr units may be applied toward an undergraduate degree.

If you are interested in applying for credit-by-examination you 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. You 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. You 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 the Registrar.
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 your 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 summer, fall, or spring semester.

## Credit for Noncollegiate Instruction

San Diego State University grants undergraduate degree credit for successful completion of noncollegiate instruction, either military or civilian, appropriate to the baccalaureate degree, 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 the Registrar. 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, you must be fully matriculated, be enrolled at the university, and submit a SMARTS or AARTS transcript, 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 an official Notice of Admission. All students taking courses in any regular semester must be matriculated students.

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

You may obtain an official transcript of your record by filing a transcript request form at the University Cashiers Office. A fee is charged for all transcripts and must be paid in advance. Five to seven working 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

You may print an unofficial SDSU transcript by accessing http:// www.sdsu.edu/portal. If all of your SDSU coursework has been taken since fall 1987, your entire record will be available on the web. If you completed coursework at SDSU prior to fall 1987, you must contact the Office of the Registrar to obtain an unofficial transcript reflecting that portion of your record. Unofficial transcripts do not bear the seal of the university and are not suitable for transfer purposes.

## Full-Time Student Status

Full-time student status for undergraduates at SDSU is 12 units per semester. Full-time enrollment for a graduate student is nine units of coursework numbered 500 through 999. Units taken for audit are not used in the calculation of enrollment status. You can obtain verification of your enrollment from the Office of the Registrar by any of the following methods: (1) in person with proper photo identification in Student Services, Room 1641; (2) by mailing the request with your authorization and signature, and a stamped, self-addressed envelope to Office of the Registrar, San Diego State University, San Diego, CA. 921827453.

## Prerequisites

Students must satisfy course prerequisites (or their equivalent) prior to beginning the course requiring the prerequisite. Faculty have the authority to enforce prerequisites listed in the catalog, to evaluate equivalent preparation, and to require proof that such prerequisites/ preparation have been completed.

If you do not meet the prerequisite requirements, you MAY BE DROPPED FROM THAT COURSE BY THE INSTRUCTOR within the first 12 class days of the semester OR the instructor may request that you personally take formal action to drop the class. Failure to comply will result in a failing grade.

## Schedule Adjustment

Schedule adjustment 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, withdrawing from the university, or changing grading options. Schedule adjustments are accepted until 6:00 p.m. on the 15th class day of the semester at http://www.sdsu.edu/portal.

You are responsible for every course in which you are registered. If you do not attend the first class meeting of the semester and you are not present at the start of the second meeting, the professor may give your place to another student. If this occurs, you have forfeited your place and the instructor may drop you from the course within the first 12 class days of the semester or request that you personally take formal action to drop the class. Not all instructors will drop students who miss the first class session and the beginning of the second class session. Students are responsible for all courses on their schedules. Students should check their online schedules regularly and take necessary action to add or drop during the first 15 class days of the semester by 6:00 p.m. If you do not attend a class and do not ensure that the course is dropped, you will receive a failing grade.

Students are not permitted to drop a class after the 15th class day of the semester at 6:00 p.m., 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 your grade status in the class, and approved by the dean (or designee) of the college of the student's major.

## Deadlines

For the fall 2006 semester, the Schedule Adjustment Deadline is 6:00 p.m. on September 18, 2006. This includes adding a class, dropping a class, changing grading basis, or withdrawing from the university.

For the spring 2007 semester, the Schedule Adjustment Deadline is 6:00 p.m. on February 7, 2007. This includes adding a class, dropping a class, changing grading basis, or withdrawing from the university.

## Change of Major

Based on your application for admission, you are admitted to a premajor, major, or designated as an undeclared major. If, after registration, you wish to change your major, you should check with the department of your intended major for requirements and filing periods.

Change of Major forms are available at the Office of the Registrar and require approval of the change by the new major department. After approval, return the form to the Registrar's Office. You will be required to meet the major and minor requirements stated in the General Catalog that are in effect when you submit your change or declaration.

If you are admitted to a premajor, you must complete specific requirements before you will be admitted to the major. Requirements are described in the section of this catalog on Courses and Curricula, or you may contact the major department for information. Requirements are also described on the SDSU Web site at http:// www.sdsu.edu/impactedmajors. If you are a veteran using veteran benefits, you must obtain appropriate approval from the Veterans Administration for necessary changes in letters of eligibility.

## 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. You are a candidate for the baccalaureate degree at San Diego State University.
2. You have requested the action formally and have 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 you would find it necessary to complete additional units and enroll for one or more additional terms in order to qualify for the baccalaureate degree if the request were not approved.
Final determination that one or more terms shall be disregarded in determination of eligibility for graduation shall be based upon a careful review of evidence by a committee appointed by the president which shall include the provost and consist of at least three members. Such final determination shall be made only when:
5. Five years have elapsed since the most recent work to be disregarded was completed; and
6. You have 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, your 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-101.
2. Fill in the form carefully and completely.
3. Attach statements and documentary evidence from doctors, lawyers, employers, parents, professors, or other appropriate persons to substantiate your claim that the request is justified.
4. Obtain all necessary clearances and signatures.
5. Return all materials to the Division of Undergraduate Studies, AD-101.

## Cancellation of Registration, Withdrawal, Leaves of Absence, Readmission, Evaluation, and Military Service

## Cancellation of Registration or Withdrawal

Students who find it necessary to cancel their registration or to withdraw from the university all classes after enrolling for any academic term must initiate action formally through the Office of the Registrar and follow the university's official withdrawal procedures. Failure to follow formal university procedures may result in an obligation to pay fees as well as the assignment of failing grade in all courses and the need to apply for readmission before being permitted to enroll in another academic term. Information on canceling registration and withdrawal procedures is available from the Office of the Registrar.

A student who has not paid fees and is not enrolled in at least one class (other than for audit) by 6:00 p.m. on the 15th class day of the semester is no longer considered a continuing student and may be required to apply for readmission.

A course will not appear on the permanent record if withdrawal occurs before the end of the 15th class day of the semester by 6:00 p.m. After the 15 th class day of the semester, withdrawals are not permitted except in cases where the cause of withdrawal is due to circumstances clearly beyond your control, such as accident or serious illness. All such requests must be accompanied by appropriate verification. 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, if you wish to change assigned grades to " $W$ " grades, you 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 your control.

Students who receive financial aid funds must consult with the Office of Financial Aid and Scholarships prior to withdrawing from the university regarding any required return or repayments of grant or loan assistance received for that academic term or payment period. If a recipient of student financial aid funds withdraws from the institution during an academic term or a payment period, the amount of grant or loan assistance received may be subject to return and/or repayment provisions.

## Unofficial Withdrawal

If you withdraw unofficially from classes or from the university, you will receive failing grades in all courses that you stop attending. An unofficial withdrawal is one in which you stop attending classes without filing official withdrawal forms within the established deadlines.

Veterans unofficially withdrawing will have veteran's allowances immediately suspended and will be subject to full repayment of allowances received after date of unofficial withdrawal.

## Leaves of Absence

One-Semester Stop Out. With certain exceptions, matriculated undergraduate and graduate students may stop out of the 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 are not eligible for a onesemester stop out.

Educational Leave of Absence. Students are permitted to take up to four 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 take leave for additional semesters, they must do so on a semester-by-semester basis. Students may request a leave of absence at http://www.sdsu.edu/portal.

The Class Schedule lists 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

> Information on readmission is given in the section of this catalog on Admission and Registration, page 68.

## Evaluation

An evaluation is a summary of college work completed and of requirements to be completed for a bachelor's degree. New transfer students will receive an evaluation prior to second semester registration. Transfer courses will be included, where applicable, to meet San Diego State University's degree requirements. Students admitted as freshmen will receive an evaluation at the end of the second semester of attendance. Continuing students may request updates to the evaluation at the Academic Advising Center, located in Student Services, Room 1551 or on the SDSU Web site at http://www.sdsu.edu/portal.

## Military Called to Compulsory Service

For further information about the policy for Military Called to Compulsory Service, contact the Veteran's Affairs Office at 619-594-5813.

## 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 exercise and nutritional sciences) or three hours of laboratory (as in the sciences) are equivalent to one hour of lecture.

During initial registration, students can enroll in a maximum of 18 units. During the add-drop period, this limit is removed. You are strongly advised to consider all aspects of your situation before adding additional courses. If you work or have family obligations that will limit the time you can devote to your studies, you are strongly urged to reduce the number of units you attempt each semester.

You should expect to spend a total of three hours per week, in class and study time, for each unit of college work attempted. A normal 16-unit load, therefore, represents a 48-hour week. You should also keep in mind that some courses require more than the average amount of time, and that your workload in all courses will vary throughout the semester as examinations and major papers or projects come due.

## Graduation With Honors and Distinction

Graduation with honors is granted to undergraduate students who achieve high grade point averages. Excellence is recognized at three levels: cum laude (3.50-3.64), magna cum laude (3.65-3.79), and summa cum laude (3.80-4.00).

For determination of eligibility, two grade point averages are computed; both must satisfy the minimum grade point average for appropriate honors designation. They are the GPA calculated on all units taken at this institution (a minimum of 24 graded units), and the overall (cumulative) grade point average (including both SDSU and transfer units).

Grades for the final semester's work are included in calculation of eligibility for graduation with honors. Students are tentatively designated as eligible for graduation with honors if both grade point averages meet required standards at the beginning of the fall semester for midyear graduates and at the end of the fall semester for May and summer term graduates. Notation of cum laude, magna cum laude, or summa cum laude on transcripts and diplomas is based on achievement when all courses for graduation are completed.

Upon recommendation of their major department, students doing superior work in their major field may be graduated with distinction in that field. To qualify for Distinction in the Major, a student must have a minimum 3.50 grade point average in the major (upper division courses) by the beginning of the fall semester for midyear graduates and by the end of the fall semester for May and summer term graduates. Departments may set a higher GPA or additional criteria.

To be considered for computation of the major grade point average, grades for removal of Incomplete and all other grade changes must be received in the Office of the Registrar no later than the end of the fifth week of the semester in which the student plans to graduate. All changes for summer term 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 fall semester or spring semester.

To be eligible for the Dean's List, students must be in good academic standing, matriculated, 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 Readmission 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.

An undergraduate student whose grade point average falls below a C average (2.0) for either all baccalaureate level college work attempted or all work attempted at San Diego State University will be placed on academic probation at the end of the semester.

Provided a student earns a C average (2.0) or better in San Diego State University work during the semester while on academic probation, academic probation may be continued up to a maximum of three semesters.

Academic probation will be lifted when the student has attained a C (2.0) average or better on all baccalaureate level college work attempted and on all work attempted at San Diego State University.

Summer Term and Open University courses are included in the SDSU grade point average; Extension courses are calculated only in the overall grade point average.

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.)

## Academic Disqualification

Students who are admitted to SDSU in good standing will not be disqualified at the end of their first semester of coursework at San Diego State University. After the first semester, students will be disqualified at the end of the fall or spring semesters if the following conditions exist:

1. A student on probation fails to earn at least a 2.0 grade point average (C average) in San Diego State University work for any semester while on probation, or
2. A student on academic probation still has less than a 2.0 grade point average in all work attempted at San Diego State University at the end of the third semester on probation.
Students who have been disqualified from SDSU will not be allowed to attend Open University or classes through the SDSU College of Extended Studies Special Sessions until one year from the date of their disqualification.

## Readmission of Academically Disqualified Students

Information on readmission is given in the section of this catalog on Admission and Registration, page 68.

## Administrative Probation and Disqualification

## Administrative Probation

An undergraduate or graduate student may be placed on administrative 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 Disqualification

A student who has been placed on administrative probation may be disqualified from further attendance if:

1. The conditions for removal of administrative probation are not met within the period specified.
2. The student becomes subject to academic probation while on administrative probation.
3. The student becomes subject to administrative probation for same or similar reason for which the student has been placed on administrative probation previously, although not currently in such status.
Students who have been disqualified from SDSU will not be allowed to attend Open University or classes through the SDSU College of Extended Studies Special Sessions until one year from the date of their disqualification.

## Student-Athlete Satisfactory Academic Progress Requirement

In order to remain eligible for intercollegiate competition, a stu-dent-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.

## Student Conduct and Grievances

Inappropriate conduct by students or by applicants for admission is subject to discipline on the San Diego State University campus. The Office of Judicial Procedures coordinates the discipline process and establishes standards and procedures in accordance with regulations contained in Sections 41301 through 41304 of Title 5, California Code of Regulations. These sections are as follows:

## 41301. Standards for Student Conduct.

San Diego State University is committed to maintaining a safe and healthy living and learning environment for students, faculty, and staff. Each member of the campus community must choose behaviors that contribute toward this end. Student behavior that is not consistent with the Student Conduct Code is addressed through an educational process that is designed to promote safety and good citizenship and, when necessary, impose appropriate consequences.
(a) Student Responsibilities

Students are expected to be good citizens and to engage in responsible behaviors that reflect well upon their university, to be civil to one another and to others in the campus community, and contribute positively to student and university life.
(b) Unacceptable Student Behaviors

The following behavior is subject to disciplinary sanctions:
(1) Dishonesty, including:
(A) Cheating, plagiarism, or other forms of academic dishonesty that are intended to gain unfair academic advantage.
(B) Furnishing false information to a university official, faculty member, or campus office.
(C)Forgery, alteration, or misuse of a university document, key, or identification instrument.
(D) Misrepresenting oneself to be an authorized agent of the university or one of its auxiliaries.
(2) Unauthorized entry into, presence in, use of, or misuse of university property.
(3) Willful, material and substantial disruption or obstruction of a university-related activity, or any on-campus activity.
(4) Participating in an activity that substantially and materially disrupts the normal operations of the university, or infringes on the rights of members of the university community.
(5) Willful, material and substantial obstruction of the free flow of pedestrian or other traffic, on or leading to campus property or an off-campus university related activity.
(6) Disorderly, lewd, indecent, or obscene behavior at a university related activity, or directed toward a member of the university community.
(7) Conduct that threatens or endangers the health or safety of any person within or related to the university community, including physical abuse, threats, intimidation, harassment, or sexual misconduct.
(8) Hazing, or conspiracy to haze, as defined in Education Code Sections 32050 and 32051:
"Hazing" includes any method of initiation or pre-initiation into a student organization, or any pastime or amusement engaged in with respect to such an organization which causes, or is likely to cause, bodily danger, physical harm, or
personal degradation or disgrace resulting in physical or mental harm, to any student or other person attending any school, community college, college, university or other educational institution in this state; but the term "hazing" does not include customary athletic events or other similar contests or competitions.
A group of students acting together may be considered a "student organization" for purposes of this section whether or not they are officially recognized. Neither the express or implied consent of a victim of hazing, nor the lack of active participation while hazing is going on is a defense. Apathy or acquiescence in the presence of hazing is not a neutral act, and is also a violation of this section.
(9) Use, possession, manufacture, or distribution of illegal drugs or drug-related paraphernalia, (except as expressly permitted by law and university regulations) or the misuse of legal pharmaceutical drugs.
(10) Use, possession, manufacture, or distribution of alcoholic beverages (except as expressly permitted by law and university regulations), or public intoxication while on campus or at a university related activity.
(11) Theft of property or services from the university community, or misappropriation of university resources.
(12) Unauthorized destruction, or damage to university property or other property in the university community.
(13) Possession or misuse of firearms or guns, replicas, ammunition, explosives, fireworks, knives, other weapons, or dangerous chemicals (without the prior authorization of the campus president) on campus or at a university related activity.
(14) Unauthorized recording, dissemination, or publication of academic presentations (including handwritten notes) for a commercial purpose.
(15) Misuse of computer facilities or resources, including:
(A) Unauthorized entry into a file, for any purpose.
(B) Unauthorized transfer of a file.
(C) Use of another's identification or password.
(D) Use of computing facilities, campus network, or other resources to interfere with the work of another member of the university community.
(E) Use of computing facilities and resources to send obscene or intimidating and abusive messages.
(F) Use of computing facilities and resources to interfere with normal university operations.
(G) Use of computing facilities and resources in violation of copyright laws.
(H) Violation of a campus computer use policy.
(16) Violation of any published university policy, rule, regulation or presidential order.
(17) Failure to comply with directions of, or interference with, any university official or any public safety officer while acting in the performance of his/her duties.
(18) Any act chargeable as a violation of a federal, state, or local law that poses a substantial threat to the safety or well-being of members of the university community, to property within the university community or poses a significant threat of disruption or interference with university operations.
(19) Violation of the Student Conduct Procedures, including:
(A) Falsification, distortion, or misrepresentation of information related to a student discipline matter.
(B) Disruption or interference with the orderly progress of a student discipline proceeding.
(C) Initiation of a student discipline proceeding in bad faith.
(D) Attempting to discourage another from participating in the student discipline matter.
(E) Attempting to influence the impartiality of any participant in a student discipline matter.
(F) Verbal or physical harassment or intimidation of any participant in a student discipline matter.
(G)Failure to comply with the sanction(s) imposed under a student discipline proceeding.
(20) Encouraging, permitting, or assisting another to do any act that could subject him or her to discipline.
(c) Application of this Code

Sanctions for the conduct listed above can be imposed on applicants, enrolled students, students between academic terms, graduates awaiting degrees, and students who withdraw from school while a disciplinary matter is pending. Conduct that threatens the safety or security of the campus community, or substantially disrupts the functions or operation of the university is within the jurisdiction of this Article regardless of whether it occurs on or off campus. Nothing in this Code may conflict with Education Code section 66301 that prohibits disciplinary action against students based on behavior protected by the First Amendment.
(d) Procedures for Enforcing this Code

The chancellor shall adopt procedures to ensure students are afforded appropriate notice and an opportunity to be heard before the university imposes any sanction for a violation of the Student Conduct Code.

## 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 insure the maintenance of order. A student so placed on interim suspension shall be given prompt notice of charges and the opportunity for a hearing within 10 days of the imposition of interim suspension. During the period of interim suspension, the student shall not, without prior written permission of the president or designated representative, enter any campus of the California State University other than to attend the hearing. Violation of any condition of interim suspension shall be grounds for expulsion.

## 41303. Conduct by Applicants for Admission.

Notwithstanding any provision in this Chapter 1 to the contrary, admission or readmission may be qualified or denied to any person who, while not enrolled as a student, commits acts which, were he enrolled as a student, would be the basis for disciplinary proceedings pursuant to Sections 41301 or 41302 . Admission or readmission may be qualified or denied to any person who while a student, commits acts which are subject to disciplinary action pursuant to Section 41301 or Section 41302. Qualified admission or denial of admission in such cases shall be determined under procedures adopted pursuant to Section 41304.

## 41304. Student Disciplinary Procedures for the California State University.

The chancellor shall prescribe, and may from time to time revise, a code of student disciplinary procedures for the California State University. Subject to other applicable law, this code shall provide for determinations of fact and sanctions to be applied for conduct which is a ground of discipline under Sections 41301 or 41302 , and for qualified admission or denial of admission under Section 41303; the authority of the campus president in such matters; conduct related determinations on financial aid eligibility and termination; alternative kinds of proceedings, including proceedings conducted by a hearing officer; time limitations; notice; conduct of hearings, including provisions governing evidence, a record, and review; and such other related matters as may be appropriate. The chancellor shall report to the board actions taken under this section.

## Student Grievances

If a student believes that a professor's treatment is grossly unfair or that a professor's behavior is clearly unprofessional, the student may bring the complaint to the proper university authorities and official reviewing bodies by following the Procedures for Handling Student Grievances Against Members of the Faculty, adopted by the Faculty Senate. A copy of the procedures may be obtained from the Ombudsman's Office in the Student Services building.

## Plagiarism

Plagiarism is formal work publicly misrepresented as original; it is any activity wherein one person knowingly, directly, and for lucre, status, recognition, or any public gain resorts to the published or unpublished work of another in order to represent it as one's own. Work shall be deemed plagiarism: (1) when prior work of another has been demonstrated as the accessible source; (2) when substantial or material parts of the source have been literally or evasively appropriated (substance denoting quantity; matter denoting qualitative format or style); and (3) when the work lacks sufficient or unequivocal citation so as to indicate or imply that the work was neither a copy nor an imitation. This definition comprises oral, written, and crafted pieces. In short, if one purports to present an original piece but copies ideas word for word or by paraphrase, those ideas should be duly noted

## Lindey, Alexander. Plagiarism and Originality, 1952.

San Diego State University is a publicly assisted institution legislatively empowered to certify competence and accomplishment in general and discrete categories of knowledge. The president and faculty of this university are therefore obligated not only to society at large but to the citizenry of the State of California to guarantee honest and substantive knowledge in those to whom they assign grades and whom they recommend for degrees. Wittingly or willfully to ignore or to allow students' ascription of others' work to themselves is to condone dishonesty, to deny the purpose of formal education, and to fail the public trust.

The objective of university endeavor is to advance humanity by increasing and refining knowledge and is, therefore, ill served by students who indulge in plagiarism. Accordingly, one who is suspected or accused of disregarding, concealing, aiding, or committing plagiarism must, because of the gravity of the offense, be assured of thorough, impartial, and conclusive investigation of any accusation. Likewise, one must be liable to an appropriate penalty, even severance from the university and in some cases revocation of an advanced degree, should the demonstrated plagiarism clearly call into question one's general competence or accomplishments.

## SDSU Alcohol and Substance Abuse Policies


#### Abstract

In accordance with the California Information Practices Act, the dean of students of San Diego State University may notify a student's parent(s) or legal guardian(s) in the event compelling circumstances exist affecting the student's health or safety, including circumstances involving alcohol or controlled substances.


This statement is presented to students to provide information about (1) health risks associated with alcohol and other drugs, (2) prevention and treatment programs available on campus, and (3) applicable State laws and campus policies. For more information, please contact SDSU's coordinator of Alcohol and Other Drug Initiatives, 619-594-4133, http://aod.sdsu.edu.

## Risks

Use and abuse of alcohol and other drugs can lead to accidents, injury, and other medical emergencies. Alcohol, especially in high doses, or when combined with medications or illegal drugs continues to claim the lives of college students across the nation. If you see someone unconscious, call 9-1-1-; doing so may save his or her life.

Driving after consumption of even relatively small quantities of alcohol can substantially increase your risk of crash involvement. Even after just a drink or two, drinkers may experience some loss of their ability to think about complex problems or accomplish complex tasks. Drinkers may also lose some control over impulsive behavior.

To become dependent upon chemicals such as alcohol and/or illicit drugs is to put your health and life at risk. Chemical dependency is a condition in which the use of mood altering substances, such as drugs or alcohol, affect any area of life on a continuing basis. Medical research has established very strong evidence that alcohol abuse contributes significantly to cancer and heart disease. Many illicit drugs have also been demonstrated to lead to serious short and long-term health problems. There is clear evidence of serious negative effects on babies due to use of illicit drugs and alcohol by the mother during pregnancy.

## Campus Resources

Keeping yourself informed is an important step in developing a healthy lifestyle and in knowing how to cope with problems as they arise. SDSU provides useful and informative prevention education programs throughout the year. A variety of departments sponsor workshops and lectures on alcohol and drug related issues to support and encourage healthy, productive lifestyles. These programs are available through: Counseling \& Psychological Services, 619-594-5220; Residential Education Office, 619-594-5742; Center on Substance Abuse, 619-594-5472; Athletic Department, 619-594-5164; Student Health Services, 619-594-4133; Public Safety Department, 619-594-1987.

For students with substance abuse problems or concerns, assistance is available at SDSU's Counseling \& Psychological Services (CPS) located in Student Services, Room 2109. Students who prefer an appointment with a health care provider (e.g. nurse or physician), may contact Student Health Services. If you are aware of problems with friends, roommates, or family members, we encourage you to act responsibly by consulting with Counseling and Psychological Services. Remaining silent or waiting until a situation has escalated is not responsible behavior. SDSU supports the notion of students helping one another to cooperatively solve alcohol and substance abuse problems as they occur.

## Laws and Campus Policy

With few exceptions, it is illegal for anyone under the age of 21 to purchase or possess alcohol. If you violate these laws you may face a fine of $\$ 250$ and suspension of your driving license. For more information about California Iaws visit the California State Bar Web site http://www.calbar.ca.gov/calbar/pdfs/cbj/kids_and_the_law.pdf
or California Alcohol Beverage Control Web site http:// www.abc.ca.gov/teencorner.html. Federal and state laws define a number of substances as "drugs" with sanctions related to their manufacture, sale, possession, and use varying by type of substance and quantity. See California State Bar Web site http://www.calbar.ca.gov/ calbar/pdfs/cbj/kids_and_the_law.pdf.

Campus standards of conduct prohibit the unlawful possession, use, or distribution of drugs and alcohol by students on university property or as any part of the university's activities. Students who violate these standards of conduct may face suspension or expulsion from the university. In addition, the university will cooperate with governmental authorities in criminal and civil actions. The university does not accept alcohol or substance abuse as an excuse, reason, or rationale for any act of abuse, harassment, intimidation, violence, or vandalism.

Possession or consumption of distilled liquor on university property is prohibited at all times. Possession, consumption, or sale of beer or wine by those 21 years of age or older is permitted at designated campus locations and events only with prior approval of the vice president for student affairs.

On campus property, the sale, distribution, knowing possession, and use of dangerous drugs or narcotics are prohibited. You are also forbidden by State and Federal laws to sell, distribute, possess, or use those drugs.

Student organizations, residence halls, athletics, and Greek Life have instituted additional policies regarding alcohol and drugs. Please contact relevant administration offices for more information. More information can also be found at http://aod.sdsu.edu.

As a student at SDSU, you are responsible for your behavior and are fully accountable for your actions. Violation of this policy statement will not go unchallenged within the SDSU community. Any university student may be expelled, suspended, or placed on probation for violating university regulations regarding alcohol or drugs. Additionally, using alcohol or drugs negatively affects your academic performance.

Students who possess, use, or distribute substances such as marijuana, cocaine, methamphetamines, or other hallucinogens and narcotics, or who violate statutes regarding alcoholic beverages, are subject to arrest, imprisonment, or a fine according to State law. The SDSU Department of Public Safety is empowered to enforce all State and Federal laws, including public drunkenness, driving under the influence, and possession of alcohol by a minor.

The university's commitment to exercising disciplinary powers in cases of illegal alcohol and drug abuse complements its full measure of support for students who seek help for themselves or their acquaintances. These two approaches, combined with an active prevention
education program, provide a strong basis for maintaining university expectations for a safe, healthy, and productive campus community. We hope that you will take advantage of the programs and services available to you, and that you will join with us in creating a viable learning community.

## SDSU Smoke Free Policy

This policy implements CSU Executive Order 599, in accordance with Education Code 89031.

Smoking is prohibited in all San Diego State University buildings or leased spaces and motor pool vehicles.

Smoking is prohibited in those outdoor areas which are either connected to or in close proximity of SDSU buildings or leased space if the smoke can readily enter the building through open doors, windows, or ventilation system intakes.

Smoking is prohibited in outdoor areas immediately adjacent to SDSU owned or leased food establishments unless designated as a smoking area, consistent with the overall goals of this policy; smoking is prohibited in outdoor SDSU owned or leased constructed seating areas where people are likely to congregate, unless designated as a smoking area.

The success of this policy depends upon the thoughtfulness, consideration, and cooperation of everyone. Deans, directors, and department chairs are responsible for implementing this policy. The associate vice president for faculty affairs and the director of the Center for Human Resources are available to assist in the policy interpretation and to ensure its consistent application.

To aid persons desiring to stop smoking, the university offers smoking cessation programs for students through Student Health Services and for faculty and staff through the Center for Human Resources.

The SDSU auxiliary organizations shall operate in conformity with this campus policy.

## Safety and Security Report

In accordance with the requirements of the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, the San Diego State University Safety and Security Report and current annual crime statistics are available online at: http://www.police. sdsu.edu. Printed copies are available at the University Police Department lobby, Student Services, Room 1410 or by calling the University Police Crime Prevention Unit at 619-594-1985.

## General Information

## Availability of Institutional and Financial Assistance Information

The following information concerning student financial assistance may be obtained from the Office of Financial Aid and Scholarships, Student Services, Room 3605, 619-594-6323, or at http://www.sdsu.edu/financialaid:

1. A description of the federal, state, institutional, local, and private student financial assistance programs available to students who enroll at San Diego State University;
2. For each aid program, a description of procedures and forms by which students apply for assistance, student eligibility requirements, criteria for selecting recipients from the group of eligible applicants, and criteria for determining the amount of a student's award;
3. A description of the rights and responsibilities of students receiving financial assistance, including federal Title IV student assistance programs, and criteria for continued student eligibility under each program;
4. The satisfactory academic progress standards that students must maintain for the purpose of receiving financial assistance and criteria by which a student who has failed to maintain satisfactory progress may reestablish eligibility for financial assistance;
5. The method by which financial assistance disbursements will be made to students and the frequency of those disbursements;
6. The terms of any loan received as part of the student's financial aid package, a sample loan repayment schedule, and the necessity for repaying loans;
7. The general conditions and terms applicable to any employment provided as part of the student's financial aid package;
8. The responsibility of San Diego State University for providing and collecting exit counseling information for all student borrowers under the federal student loan programs; and
9. The terms and conditions for deferral of loan payments for qualifying service under the Peace Corps Act, the Domestic Volunteer Service Act of 1973, or comparable volunteer community service.
Information concerning the cost of attending San Diego State University is available from the Office of Financial Aid and Scholarships, Student Services, Room 3605, 619-594-6323, or at http:// www.sdsu.edu/financialaid, and includes fees and tuition; the estimated costs of books and supplies; estimates of typical student room, board, and transportation costs; and, if requested, additional costs for specific programs.

Information concerning the refund policies of San Diego State University for the return of unearned tuition and fees or other refundable portions of institutional charges is available from the University Cashiers Office, Student Services, Room 2620, 619-594-5253, or at http:// www.sdsu.edu/cashiers.

Information concerning policies regarding the return of federal Title IV student assistance funds as required by regulation is available from the Office of Financial Aid and Scholarships, Student Services, Room 3605, 619-594-6323, or at http://www.sdsu.edu/financialaid.

Information regarding special facilities and services available to students with disabilities may be obtained from Disabled Student Services, Student Services, Room 1661, 619-594-1991, or at http:// www.sdsu.edu/dss.

Information concerning San Diego State University policies, procedures, and facilities for students and others to report criminal actions or other emergencies occurring on campus may be obtained from Public Safety, Student Services, Room 1410, 619-594-1991, or at http:// www.police.sdsu.edu.

Information concerning San Diego State University annual campus security report may be obtained from Public Safety, Student Services, Room 1410, 619-594-1991, or at http://www.police.sdsu.edu.

Information concerning the prevention of drug and alcohol abuse and rehabilitation programs may be obtained from Counseling and Psychological Services, Student Services, Room 2109, 619-594-5220, or at http://www.sa.sdsu.edu/cps.

Information regarding student retention and graduation rates of students enrolled 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 may be obtained from Analytical Studies and Institutional Research, Student Services, Room 3630, 619-594-6846, or at http://asir.sdsu.edu.

Information concerning athletic opportunities available to male and female students and the financial resources and personnel that San Diego State University dedicates to its men's and women's teams may be obtained from the director of Intercollegiate Athletics, Aztec Athletics Center, Room 3015, 619-594-6357, or at http://www.goaztecs.com.

Information concerning teacher preparation programs at San Diego State University, including pass rate on teacher certification examinations, may be obtained from the Office of Advising and Recruitment, Business Administration, Room 259, 619-594-6320.

Information concerning grievance procedures for students who feel aggrieved in their relationships with the university, its policies, practices and procedures, or its faculty and staff may be obtained from the ombudsmen, Student Services, Room 1105, 619-594-6578, or at http://www.sa.sdsu.edu/ombuds.

The federal Military Selective Service Act (the "Act") requires most males residing in the United States to present themselves for registration with the Selective Service System within thirty days of their eighteenth birthday. Most males between the ages of 18 and 25 must be registered. Males born after December 31, 1959, may be required to submit a statement of compliance with the Act and regulations in order to receive any grant, loan, or work assistance under specified provisions of existing federal law. In California, students subject to the Act who fail to register are also ineligible to receive any need-based student grants funded by the state or a public postsecondary institution.

Selective Service registration forms are available at any U.S. Post Office, and many high schools have a staff member or teacher appointed as a Selective Service Registrar. Applicants for financial aid can also request that information provided on the Free Application for Federal Student Aid (FAFSA) be used to register them with the Selective Service. Information on the Selective Service System is available and the registration process may be initiated online at http:// www.sss.gov.

## 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. Any such data provided must be in a form that does not allow for the identification of any individual student. 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 system. Information is available at http://career.sdsu.edu.

## 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

## Accreditation

San Diego State University is accredited by the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges, 985 Atlantic Avenue, Suite 100, Alameda CA 94501 510-748-9001; FAX 510-748-9797; E-mail: wascsr@wascsenior.org; http://www.wascweb.org. 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

Accreditation Council for Graduate Medical Education
(Preventive Medicine Residency Program)
515 N. State Street, Suite 2000
Chicago, IL 60610
312-464-4972
American Association of Colleges for Teacher Education
One Dupont Circle, Suite 610
Washington, D.C. 20036-1186
202-293-2450
American Chemical Society
Committee on Professional Training
1155 Sixteenth Street, N.W.
Washington, D.C. 20036
202-872-4600
American College of Nurse Midwives
818 Connecticut Avenue, N.W., Suite 900
Washington, D.C. 20006
202-728-9896
American Psychological Association (Clinical Psychology)
750 First Street, N.E.
Washington, D.C. 20002-4242
202-336-5500
American Speech-Language-Hearing
Association, Council on Academic Accreditation in
Audiology and Speech-Language Pathology
10801 Rockville Pike
Rockville, MD 20852
301-897-5700
California Commission on Teacher Credentialing
1812 Ninth Street
Sacramento, CA 95814-7000
916-445-0184
Commission on Accreditation of Healthcare Management Education
2000 14th Street North, Suite 780
Arlington, VA 22201
703-894-0960

Commission on Collegiate Nursing Education
One Dupont Circle, NW, Suite 530
Washington, D.C. 20036-1120
202-887-6791
Computing Accreditation Commission of ABET, Inc. (Computer Science)
111 Market Place, Suite 1050
Baltimore, MD 21202-4012
410-347-7700
Council of Graduate Schools
One Dupont Circle, N.W., Suite 430
Washington, D.C. 20036-1173
202-223-3791
Council on Education for Public Health
1015 Fifteenth Street, N.W
Washington, D.C. 20005
202-789-1050
Council on Social Work Education
1725 Duke Street, Suite 500
Alexandria, VA 22314-3457
703-683-8080, http://www.cswe.org
Foundation for Interior Design Education Research
146 Monroe Center NW, \#1318
Grand Rapids, MI 49503-2822
616-458-0400. http://www.fider.org
National Association of School Psychologists
4340 East West Highway, Suite 402
Bethesda, MD 20814
301-657-0280
National Association of Schools of Art and Design
11250 Roger Bacon Drive, Suite 21
Reston, VA 20190
703-437-0700
National Association of Schools of Public Affairs and Administration
1120 G Street, N.W., Suite 730
Washington, D.C. 20005-3801
202-628-8965
National Association of Schools of Theatre
11250 Roger Bacon Drive, Suite 21
Reston, VA 20190
703-437-0700
National Council on Rehabilitation Education c/o Dr. Garth Eldredge, Administrative Secretary Utah State University
Department of Special Education and Rehabilitation
2870 University Boulevard
Logan, Utah 84322-2870
National Recreation and Park Association
22377 Belmont Ridge Road
Ashburn, VA 20148
703-858-0784
Western Association of Graduate Schools University of Washington, The Graduate School
Box 351240
Seattle, WA 98195-1240
206-543-9054

In addition, San Diego State University is accredited by the following agencies:

The College of Business Administration and the School of Accountancy are accredited by AACSB International-The Association to Advance Collegiate Schools of Business-at both the undergraduate and graduate levels. Several College of Business Administration programs are registered with the Certified Financial Planner Board of Standards, 1700 Broadway, Suite 2100, Denver, CO 80290-2101, 303-830-7500.

The College of Engineering undergraduate programs in aerospace engineering, civil engineering, computer engineering, electrical engineering, environmental engineering and mechanical engineering are accredited by the American Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202, 410-347-7700.

The School of Nursing is accredited by the California Board of Registered Nursing, State of California, Department of Consumer Affairs, 400 R Street., Suite 4030, Sacramento, CA 95814, 916-322-3350.

Concentrations in Environmental Health and Occupational Health, in the Graduate School of Public Health are accredited by the American Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202, 410-347-7700.

The Didactic Program in Dietetics and the Preprofessional Practice Program in Dietetics in the Department of Exercise and Nutritional Sciences are approved by the American Dietetic Association, P.O. Box 97215, Chicago, IL 60678-7215, 312-899-0040.

Undergraduate programs in Athletic Training and Kinesiotherapy, in the Department of Exercise and Nutritional Sciences are accredited by the Commission on Accreditation of Allied Health Education Programs, 335 East Wacker Drive, Suite 1970, Chicago, IL, 312-553-9355, caahep@mls.net.

## Degrees and Certificates

San Diego State University offers the following degrees and certificates:

Bachelor of Arts
Bachelor of Fine Arts (Dance)
Bachelor of Science
Bachelor of Music
Bachelor of Vocational Education
Master of Arts
Master of Science
Master of Business Administration
Master of Business Administration and Juris Doctor
Master of City Planning
Master of Fine Arts (Art, Creative Writing, Theatre Arts)
Master of Music
Master of Public Administration
Master of Public Health
Master of Social Work
Master of Social Work and Juris Doctor
Master of Social Work and Master of Public Health
Educational Specialist in School Psychology
Doctor of Audiology
Doctor of Education
Doctor of Philosophy
Nondegree programs leading to certificates are offered in Accounting, Applied Gerontology, Applied Linguistics and English as a Second Language (ESL), Art (Imperial Valley Campus only), Artist Diploma (Music), Bilingual (Spanish) Special Education, Bilingual

Speech-Language Pathology, Biotechnology, Business Administration (Imperial Valley Campus only), Children's/Adolescent Literature, Communications Systems, Community College Teaching, Cross-Cultural Language and Academic Development (CLAD or BCLAD), Cultural and Community Trauma Studies, Developing Gifted Potential, Distance Education, Early Childhood Special Education, Early Intervention, Environmental Studies, Exercise Leadership, Family Life Education, Geographic Information Science, Instructional Software Design, Human Services Paraprofessional, Instructional Technology, Mathematics Specialist, Personal Financial Planning, Preventative Medicine Residency, Professional Computational Science, Public Administration (Imperial Valley Campus only), Rehabilitation Administration, Rehabilitation Technology, Regulatory Affairs, Single Subject Mathematics, Spanish Court Interpreting (Imperial Valley Campus only), Spanish Translation Studies, Supported Employment and Transition Specialist, Technical and Scientific Writing, Transborder Public Administration and Governance, United States-Mexico Border Studies, and Workforce Education and Lifelong Learning.

## 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, Bachelor of Fine Arts in Dance, 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 seven fields; the College of Engineering offers the Bachelor of Science degree in engineering with majors in six fields; and the College of Education offers curricula in teacher education leading to graduate credentials at all levels of public school teaching.

The School of Speech, Language, and Hearing Sciences offers curricula leading to clinical certification and graduate credentials in speech pathology, audiology, and speech, language, and hearing sciences.

The School of Nursing offers the Bachelor of Science degree and the Master of Science degree in Nursing (areas of concentration are advanced practice nursing of adults and the elderly, community health nursing, and nursing systems administration) and offers a curriculum leading to registered nurse licensure and public health nurse credential, and health services credential (school nurse services).
(4) Preprofessional and nondegree curricula: Programs are offered in allied health, predental, prelegal, premedical, and preveterinary leading to transfer to professional schools. Air Force, Army, and Naval ROTC programs are also available.

Graduate Curricula. The Division of Graduate Affairs 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 Business Administration and Juris Doctor, 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 Theatre Arts, the Master of Music, the Master of Public Administration, the Master of Public Health, the Master of Social Work, Master of Social Work and Juris Doctor, the Educational Specialist in school psychology, the Professional Doctorate in audiology, the Doctor of Education in educational technology, teaching and learning, and the Doctor of Philosophy in biology (cell and molecular), chemistry, clinical psychology, computational science, ecology, education, engineering sciences/applied mechanics, geography, language and communicative disorders, mathematics and science education, and public health/epidemiology.

## 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 the campuses of the CSU include comprehensive and polytechnic universities and, since July 1995, the California Maritime Academy, a specialized campus.

The oldest campus - San José State University - was founded in 1857 and became the first institution of public higher education in California. The newest - CSU Channel Islands - opened in fall 2002, with freshmen arriving in fall 2003.

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

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

Academic excellence has been achieved by the California State University through a distinguished faculty whose primary responsibility is superior teaching. While each campus in the system has its own unique geographic and curricular character, all campuses, as multipurpose institutions, offer undergraduate and graduate instruction for professional and occupational goals as well as broad liberal education. All 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 1,800 bachelor's and master's degree programs in some 240 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.

Enrollments in fall 2005 totaled 405,000 students, who were taught by some 22,000 faculty. The system awards about half of the bachelor's degrees and a third of the master's degrees granted in California. Nearly two million persons have been graduated from CSU campuses since 1960.

## Average Support Cost Per Full-time Equivalent Student and Sources of Funds

The total support cost per full-time equivalent student includes 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. The average support cost is determined by dividing the total cost by the number of full-time equivalent students (FTES). The total CSU 2005/06 final budget amounts were $\$ 2,615,120,000$ from state General Fund appropriations (not including capital outlay funding), \$1,003,659,000 from State University Fee Revenue, $\$ 393,418,000$ from other fee revenues, and reimbursements for a total of $\$ 4,012,095,000$. The number of projected 2005/06 full-time equivalent students (FTES) is 332,223. 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 2005/06 average support cost per full-time equivalent student based on General Fund appropriation and State University Fee revenue only is $\$ 10,884$ and when including all sources as indicated below is $\$ 12,077$. Of this amount, the average student fee support per FTE is $\$ 3,021$, which includes all fee revenue in the state higher education fund (e.g. State University Fee, nonresident tuition, application fees, miscellaneous course fees).

| 2005/06 | Amount | Average <br> Cost Per FTE <br> Student | Percentage |
| :--- | ---: | ---: | :---: |
| Total Support Cost | $\$ 4,012,095,000$ | $\$ 12,077$ | $100 \%$ |
| -State Appropriation | $2,615,120,000$ | 7,865 | $65 \%$ |
| -Student Fee Support* | $1,003,659,000$ | 3,020 | $25 \%$ |
| -Other Income and | $393,418,000$ | 1,184 | $10 \%$ |

[^36]
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415-338-1111 • www.sfsu.edu
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23 California State University, Stanislaus • 4-1-4 801 West Monte Vista Avenue, Turlock, CA 95382-0299 Dr. Hamid Shirvani, President 209-667-3122 • www.csustan.edu

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Abdel-Nour, Farid (2000) $\qquad$ Associate Professor of Political Science B.S., Ph.D., Rutgers, The State University of New Jersey.

Adams, Brian E. (2003). $\qquad$ Assistant Professor of Political Science B.A., University of Southern California; M.A., Ph.D., University of California, Irvine.

Addo, Theophilus (1987). Associate Professor of Information and Decision Systems
B.Sc., University of Ghana; M.S.T.M., American University, Washington, D.C.; M.B.A., Ph.D., Indiana University, Bloomington.

Adler, Renatte K. (1982) $\qquad$ Professor of Economics B.A., Ph.D., University of New Mexico.

Aguado, Edward (1982). $\qquad$ Professor of Geography
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Aguilar, Isabel (1972). $\qquad$ Director, Outreach and Career Counseling,
Imperial Valley Campus
A.B., M.S., San Diego State University.

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Aistrich, Matti (2002) $\qquad$ Assistant Professor of Marketing B.B.A., M.B.A., Helsinki School of Economics and Business Administration, Finland; D.B.A., Harvard University.

Aitken, Stuart C. (1986)... $\qquad$ Professor of Geography B.Sc., Glasgow University; M.A., Miami University; Ph.D., University of Western Ontario. Alcaraz, John E. (1993). $\qquad$ Associate Professor of Public Health B.A., M.A., Ph.D., University of California, San Diego.

Alcosser, Sandra B. (1986) $\qquad$ Professor of English B.A., Purdue University; M.F.A., University of Montana.

Alexseev, Mikhail A. (2000). $\qquad$ .Associate Professor of Political Science B.A., M.A., Kiev State University; Ph.D., University of Washington.

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B.A., M.A., San Diego State University; Ph.D., Claremont Graduate University and San Diego State University.
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Alkebulan, Adisa A. (2002) $\qquad$ Assistant Professor of Africana Studies B.A., Kent State University; M.A., Ph.D., Temple University.

Allen, Brockenbrough S. (1982)... $\qquad$ Professor of Educational Technology A.B., M.A., University of California, Berkeley; Ph.D., University of Southern California.

Allison, Alida L. (1990). $\qquad$ ..Professor of English and Comparative Literature B.A., M.A., San Diego State University; Ph.D., University of California, Riverside.

Alter, Joseph W. (2005). $\qquad$ Assistant Professor of Dance B.A., Hunter College; M.F.A., The Ohio State University.

Alvarado, Elizabeth R. (1974) ............................Counselor, Educational Opportunity and Ethnic Affairs
A.B., California State University, Northridge; M.S., San Diego State University.

Alvarado, José L. (1999).................................Associate Professor of Special Education B.A., M.A., San Diego State University; Ph.D., University of Virginia.

Amaral, Olga M. (1996) .................................Associate Professor of Teacher Education, Imperial Valley Campus
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An, Li (2005)
.. Assistant Professor of Geography B.S., Beijing University; M.S., Chinese Academy of Sciences; Ph.D., Michigan State University.
Andersen, Janis F. (1981)......................Interim Dean of the Division of Graduate Affairs; Professor of Communication
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Andersen, Peter A. (1981, except 1983-85) ....................... Professor of Communication
B.A., University of Illinois; M.S., Illinois State University; Ph.D., Florida State University.

Anderson, Bonnie M. (1988). $\qquad$ .Assistant Dean, Undergraduate Studies; Lecturer in Theatre, Television, and Film
B.A., Mills College; M.A., California State University, Fullerton; Ph.D., University of California, Santa Barbara.
Anderson, Gwenievere W. (2003) $\qquad$ Associate Professor of Nursing B.Sc.N., University of Victoria, British Columbia; M.N., University of Alberta, Alberta; Ph.D., Boston College.
Anderson, John C. (2001) $\qquad$ ..Professor of Accountancy B.B.A., M.S., University of Missouri; Ph.D., University of Tennessee.

Anderson, Matthew E. (2000) .......................................... Assistant Professor of Physics B.S., University of California, San Diego; Ph.D., University of Oregon.

Anderson, Todd W. (1999) .............................................. Associate Professor of Biology B.S., M.A., California State University, Fresno; Ph.D., University of California, Santa Barbara.
Angelelli, Claudia V. (2001) $\qquad$ Associate Professor of Spanish B.A., Universidad Catolica Argentina; M.A., Monterey Institute of International Studies; Ph.D., Stanford University.
Appleton-Knapp, Sara L. (2002) .Assistant Professor of Marketing B.A., University of California, Irvine; M.S., Ph.D., University of California, Los Angeles.

Archibald, J. David (1983). $\qquad$ .. Professor of Biology B.S., Kent State University; Ph.D., University of California, Berkeley.

Arenas-Mena, Cesar (2002).............................................Assistant Professor of Biology B.S., Universidad de Alcala de Henares; Ph.D., Instituto de Biologia Molecular de Barcelona.
Atkins, Catherine J. (1988) $\qquad$ ...Associate Dean for Faculty Affairs, College of Sciences; Professor of Psychology A.B., M.S., San Diego State University; Ph.D., University of California, Riverside.

Atterton, Peter C. (2005).. $\qquad$ Assistant Professor of Philosophy B.A., M.A., Ph.D., University of Essex.

Aufsesser, Peter M. (1975). $\qquad$ .. Professor of Exercise and Nutritional Sciences B.S., Springfield College; Ed.M., State University of New York, Buffalo; Ph.D., University of Maryland.
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Ayala, Guadalupe X. (2005). $\qquad$ ...Assistant Professor of Public Health B.A., University of San Diego; M.P.H., San Diego State University; Ph.D., San Diego State University and University of California, San Diego.
Baber, Carolyn D. (1987) $\qquad$ .Associate Librarian B.S., Illinois State University; M.S., University of Illinois at Urbana-Champaign.

Badrinath, Swaminathan G. (2000)
.. Professor of Finance B.A., M.A., Delhi University; M.B.A., Indian Institute of Management; Ph.D., Purdue University.
Badriyha, Badri (2000)..........Assistant Professor of Civil and Environmental Engineering B.S, M.S., University of Baghdad, Iraq; Ph.D., University of Southern California. Registered Professional Engineer.
Baer, Susan E. (2001) ....Assistant Professor of Public Administration and Urban Studies B.S., B.A., Shippensburg University; M.A., Ph.D., University of Maryland.

Bailey, Allan R. (1968). $\qquad$ ..Professor of Accountancy B.S., San Diego State University; M.B.A., Ph.D., University of California, Los Angeles.

Baker, Richard J. (1978).. $\qquad$ ....Professor of Art, Design, and Art History B.F.A., Kansas City Art Institute; M.F.A., University of Cincinnati.

Baker, William E. (2001).............................................Associate Professor of Marketing B.A., Northwestern University; M.A., Ph.D., University of Florida.

Baljon, Arlette R.C. (1999) ............................................ Associate Professor of Physics M.S., University of Utrecht, The Netherlands; Ph.D., University of Chicago.

Balkwell, Carolyn K. (1981) ......................... Professor of Child and Family Development B.S., Michigan State University; M.S., Kansas State University; Ph.D., University of Georgia.
BalI, Joseph W. (1975).......................................................... Professor of Anthropology A.B., Fordham University; M.A., Ph.D., University of Wisconsin.

Balsdon, Edmund M. (2000) ......................................Assistant Professor of Economics B.A., College of the Holy Cross; M.A., Ph.D., University of California, Santa Barbara.

Banks, James H. (1976) $\qquad$ Professor of Civil and Environmental Engineering B.E., Vanderbilt University; M.S., Ph.D., University of California, Berkeley.

Bansak, Cynthia A. (2001). $\qquad$ .Assistant Professor of Economics B.A., Yale University; M.A., Ph.D., University of California, San Diego.

Barbone, Steven L. (1997) $\qquad$ . Associate Professor of Philosophy B.S., University of Scranton; Ph.D., Marquette University.

Barlow, Jessica A. (1997) ........................Associate Professor of Speech, Language, and Hearing Sciences
B.A., M.A., Ph.D., Indiana University.

Baron, Lawrence (1988) Professor of History B.A., University of Illinois; M.A., Ph.D., University of Wisconsin.

Barrio, Concepcion (1998)
Associate Professor of Social Work B.A., Loyola Marymount University; M.S.W., Ph.D., University of Southern California.

Basom, Margaret R. (1999) .................................... Professor of Educational Leadership B.A., St. Thomas University; M.S., Southern Connecticut State University; Ph.D., University of Wyoming.
Bayasi, M. Ziad (1990)......................... Professor of Civil and Environmental Engineering B.S., Damascus University, Syria; M.S., South Dakota State University; M.S., Ph.D., Michigan State University. Registered Professional Engineer.
Beach, Wayne A. (1984) $\qquad$ .. Professor of Communication B.A., Drake University; M.A., University of Montana; Ph.D., University of Utah.

Beatty, James R. (1973)........................ Professor of Information and Decision Systems A.B., Franklin College; M.S., Indiana State University; Ph.D., University of Northern Colorado.
Beck, Lawrence A. (1982, except F'85-S'86) ............ Professor of Recreation, Parks and Tourism
B.S., Humboldt State University; M.A., Azusa Pacific University; Ph.D., University of Minnesota.
Beck, Leland L. (1980) ................................................... Professor of Computer Science A.B., Rice University; M.A.S., Ph.D., Southern Methodist University.

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Berelowitz, Jo-Anne (1993)............... Associate Professor of Art, Design, and Art History B.A., University of Witwatersrand; M.A., Stanford University; Ph.D., University of California, Los Angeles.
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Bernstein, Sanford I. (1983) $\qquad$ .Professor of Biology B.S., State University of New York at Stony Brook; Ph.D., Wesleyan University.

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Brown, Harold K. (1971) ........... Associate Dean for Community Economic Development, College of Business Administration
A.B., San Diego State University; M.B.A., Fordham University.

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Brusca, Chris (2004)
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Buono, Michael J. (1982)...... Professor of Exercise and Nutritional Sciences and Biology B.S., East Stroudsberg State College; M.S., University of Nevada; Ph.D., University of Arizona.
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Burns, Kevin (1998) $\qquad$ Associate Professor of Biology B.S., Texas A \& M University; M.S., Louisiana State University; Ph.D., University of California, Berkeley.
Butler-Byrd, Nola M. (2004)
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B.A., University of San Diego; M.A., San Diego State University; Ph.D., Claremont Graduate University and San Diego State University.
Cai, Kevin G. (2002). $\qquad$ .. Assistant Professor of Asia Pacific Studies B.A., Shanghai International Studies University, China; M.A., University of Waterloo, Canada; Ph.D., Queens University, Canada.
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Carande, Robert J. (1987).
. Associate Librarian B.A., M.L.S., State University of New York at Buffalo; M.A., State University of New York at Stony Brook.
Carpenter, John J. (1975) ........................................................... Director, Public Safety A.B., Eastern Washington State College.

Carrano, Carl J. (2003) ................................... Professor of Chemistry and Biochemistry B.S., University of California, Santa Barbara; Ph.D., Texas A\&M University.

Carretero, Ricardo (2002) .......................................Assistant Professor of Mathematics B.Sc., Universidad Nacional de Mexico; Ph.D., University of London.

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Carruthers, David V. (1995) ...............................Associate Professor of Political Science B.A., Southern Oregon University; M.A., Ph.D., University of Oregon.

Castañeda, Donna (1993).....Associate Professor of Psychology, Imperial Valley Campus B.A., University of Washington; M.A., Ph.D., University of California, Davis.

Castillo, José E. (1987). Professor of Mathematics B.S., Universidad Central de Venezuela; M.A., University of Texas at Austin; Ph.D., University of New Mexico.
Castro, Janet (1996).......................Interim Director, New Student and Parent Programs, Student Affairs
B.S., University of Kentucky; M.S., Miami University.

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Cayleff, Susan E. (1987) $\qquad$ . Professor of Women's Studies B.A., University of Massachusetts at Amherst; M.A., Sarah Lawrence College; M.A., Ph.D., Brown University.
Cervenka, Robin M. (2000). B.S.N., Lander University; M.N., University of South Carolina.

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Wilson, Thomas E. (2001)............................ Associate Director, Student Health Services B.B.A., M.S.O.D., Eastern Michigan University.
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Wong, Paul (2003) .................. Dean, College of Arts and Letters; Professor of Sociology B.A., M.A., Ph.D., University of California, Berkeley.
Wu, Ruey-Jiuan Regina (1999).......................................Assistant Professor of Chinese B.A., National Taiwan Normal University; M.A., University of Washington; Ph.D., University of California, Los Angeles.
Wulfeck, Beverly B. (1994) .......... Professor of Speech, Language, and Hearing Sciences B.A., M.A., University of California, Santa Barbara; Ph.D., University of California, San Diego.
Wulfemeyer, K. Tim (1976, except F'80-S'87) ....................Professor of Communication A.B., San Diego State University; M.S., Iowa State University; Ed.D., University of California, Los Angeles.
Xie, Fei (2005). $\qquad$ Assistant Professor of Finance B.S., Tsinghua University.

Yaggie, James (1998)............... Associate Professor of Exercise and Nutritional Sciences B.S., M.S., Ph.D., University of Toledo.

Yang, Yeongling Helio (1988) ................ Professor of Information and Decision Systems B.A., Cheng-Kung University, Taiwan; M.S., Ph.D., University of Florida.

Yapelli, Tina Marie (1985) $\qquad$ Professor of Art, Design, and Art History B.A., Loyola Marymount University; M.A., California State University, Fullerton.

Yeager, Bill (1985). $\qquad$ Professor of Music B.M., M.M., North Texas State University.

Yeh, Chiou-Ling (2002). $\qquad$ ..Assistant Professor of History B.A., National Chengchi University; M.A., Michigan State University; Ph.D., University of California, Irvine.
Yeh, May (2001) ........................................................Assistant Professor of Psychology B.A., M.A., Ph.D., University of California, Los Angeles.

Yerrick, Randy K. (1999)
Professor of Teacher Education B.S., M.A., Ph.D., Michigan State University.

Yoo, Sehyun (2005) ....................Assistant Professor of Finance, Imperial Valley Campus B.S., University of Buckingham; M.B.A., Universidad de Navarra; Ph.D., Temple University.
Youde, Jeremy R. (2005). $\qquad$ . Assistant Professor of Political Science B.A., Grinnell College; M.A., Ph.D., University of Iowa.

Yu, Elena S. H. (1990) $\qquad$ .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.
Zabaleta, Francisco (2001) $\qquad$ . Assistant Professor of Spanish B.A., M.A., San Diego State University; Ph.D., University of California, Santa Barbara.

Zebedee, Allan A. (2001) $\qquad$ . Assistant Professor of Finance B.A., Colby College; M.A., Ph.D., University of California, San Diego.

Zeller, Robert W. (2001) $\qquad$ Assistant Professor of Biology B.A., Boston University; Ph.D., California Institute of Technology.

Zhang, Sheldon X. (2002) $\qquad$ .. Professor of Sociology B.A., Sichuan University, China; M.A., Ph.D., University of Southern California.

Zhang, Zheng-sheng (1990) $\qquad$ .Associate Professor of Chinese B.A., Beijing Teacher's College, Peoples Republic of China; M.A., Ph.D., The Ohio State University.
Zheng, Congcong (2005) $\qquad$ .Assistant Professor of Management B.E., University of International Business and Economics, Beijing.

Zhong, Mei (1999) ............................................ Associate Professor of Communication B.A., University of Guam; M.A., Southern Illinois University; Ph.D., Kent State University.

Zimmerman, Bonnie S. (1978). $\qquad$ .Associate Vice President for Faculty Affairs: Professor of Women's Studies A.B., Indiana University; Ph.D., State University of New York at Buffalo.

Zozakiewicz, Cathy (2003). $\qquad$ Assistant Professor of Teacher Education B.A., M.A., Beloit College; Ph.D., University of Wisconsin, Madison.

## Emeritus Faculty

Day, Thomas B., Ph.D., President (1978-1996)........................... Professor of Physics
Golding, Brage, Ph.D., President (1972-1977)
). ..Professor of Chemistry and Engineering
Abbott, Mitchel T., Ph.D. (1964-1992) $\qquad$ ..Professor of Chemistry
Abbott, Patrick L., Ph.D. (1971-2003) ......................... Professor of Geological Sciences Abut, Hüseyin, Ph.D. (1981-2001)...... Professor of Electrical and Computer Engineering Ackerly, Jr., Robert S., Ed.D. (1963-1990)... $\qquad$ Advising Center; Professor of Teacher Education
Adams, Elsie B., Ph.D. (1971-1994) .... Professor of English and Comparative Literature Ajemian, James A., Ph.D. (1970-1998) .................... Assistant Professor of Social Work 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) .. $\qquad$ Professor of Psychology
Alfred, Lawrence J., Ph.D. (1994-2000) .........................................Professor of Biology
Allen, Barbara E., M.A. (1969-2001, except S'70) ....Assistant Dean for Student Affairs, College of Education
Allen, Elizabeth J., Ph.D. (1971-2004)....................Professor of Speech, Language, and Hearing Sciences
Almond, Frank W., Ph.D. (1968-2003) .. $\qquad$ Professor of Music Altamura, Nicholas C., Ph.D. (1967-1983). $\qquad$ Associate Professor of Secondary Education
Anantha, Kasi, Ph.D. (1981-2004)..................................Professor of Computer Science Anderson, Allan W., Ph.D. (1962-1985) .......................... Professor of Religious Studies Anderson, Graydon K., Ph.D. (1949-1979)................................ Professor of Economics Anderson, Hayes L., Ph.D. (1966-2001) ... $\qquad$ Associate Dean, College of Professional Studies and Fine Arts; Professor of Communication
Anderson, Paul V., M.M. (1954-1983).. $\qquad$ Professor of Music Andrain, Charles F., Ph.D. (1964-1998) ............................ Professor of Political Science Andrus, Ruth, Ph.D. (1962-1982) .................................. Professor of Physical Education Angione, Ronald J., Ph.D. (1969-2004) .................................... Professor of Astronomy Annas, Alicia M., M.F.A. (1970-2000). $\qquad$ Professor of Theatre
Anthony, Sally M., Ed.D. (1965-1990).................... Professor of Educational Technology Apple, L. Eugene, Ph.D. (1985-1991) .......................... Assistant Professor of Marketing Atchison, Thomas J., Ph.D. (1965-1992) .............................. Professor of Management Atkins, Bobbie J., Ph.D. (1989-2005)..... Professor of Administration, Rehabilitation and Postsecondary Education
Atkins, Michael D., Ph.D. (1970-1992)..........................................Professor of Biology
Avila, Vernon L., Ph.D. (1973-2003) ...............................Associate Professor of Biology
Ayala, Reynaldo, Ph.D. (1969-1996)....Professor of Geography, Imperial Valley Campus Baase-Mayers, Sara, Ph.D. (1972-2000) $\qquad$ Professor of Mathematical and Computer Sciences
Babilot, George, Ph.D. (1956-1991)......................................... Professor of Economics
Bailey, Gerald D., Ed.D. (1964-1992)........................Professor of Industrial Technology
Bailey, Greg W., Ed.D. (1982-2002) ..........................Assistant Dean for Student Affairs, College of Engineering; Associate Professor of Electrical and Computer Engineering
Baily, Kamilla U., M.S.W. (1966-1977). $\qquad$ .Associate Professor of Social Work 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
Ballesteros, David, Ph.D. (1983-1998) ............................. Dean, 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
Bar-Lev, Zev, Ph.D. (1979-2006) .............................................. Professor of Linguistics

Barnes, Alfred C., H.S.D. (1977-1981) .................Associate Professor of Health Science Barnett, Andrew H., Ph.D. (1983-2005) $\qquad$ Professor of Accountancy Barnett, Carol A., Ph.D. (1971-2000)............................................. Professor of Biology Barone, Joan F., M.S. (1960-1992) ................ Associate Professor of Physical Education Barra, Donald P., Ed.D. (1983-2000)................................................ Professor of Music Barrera, Ernesto M., Ph.D. (1969-1999)....................................... Professor of Spanish Bart, Kenneth J., M.D. (1998-2004)....................................... Professor of Public Health Bartholomew, Jr., Francis M., Ph.D (1967-2001)............ Associate Professor of History Bauer, Edward G., M.S. (1956-1976) .................... Professor of Mechanical Engineering Baxter, William L., Ph.D. (1963-1992) ........................................... Professor of Biology
Bedore, Robert L., M.S.M.E., Professional Degree in Mechanical Engineering
(1959-1992).................................................... Professor of Mechanical Engineering
Bee, Clifford P., Ph.D. (1969-2000)... $\qquad$ Professor of Teacher Education Belasco, James A., Ph.D. (1971-2000)................................. Professor of Management Bell, Jr., Charles B., Ph.D. (1981-1992)..................Professor of Mathematical Sciences Bender, Stephen J., H.S.D. (1970-2004) ............................... Professor of Public Health Bennett, Larry E., Ph.D. (1970-2000)..........................................Professor of Chemistry Benson, Jackson J., Ph.D. (1966-1997)......................................... Professor of English Benton, Carl W., Ed.D. (1948-1983).............................. Professor of Physical Education Berg, Marlowe J., Ph.D. (1970-2003) ............................ Professor of Teacher Education Berg, Robert V., M.F.A. (1963-1992).................................................... Professor of Art Berry, Richard W., Ph.D. (1961-2001) ......................... Professor of Geological Sciences Bertine, Kathe K., Ph.D. (1973-2000) ......................... Professor of Geological Sciences Biggs, Millard R., Ph.D. (1958-1986) .............................................. Professor of Music Bilterman, Henry L., M.A. (1956-1977) ...................................... Assistant Professor of Mechanical Engineering
Blanc, Sam S., Ed.D. (1966-1981) ............................Professor of Elementary Education Blick, James D., Ph.D. (1966-1985) ............................Associate Professor of Geography
Block, Russell L., J.D. (1969-2004).. $\qquad$ .Associate Professor of Finance
Bloomberg, Jr., Warner, Ph.D. (1973-1989)..
............................. Professor of Sociology
Blue, Carroll Parrott, M.F.A. (1984-2004)....... Professor of Theatre, Television, and Film
Blyth, John D., Ed.D. (1957-1983) ................................................... Professor of Music
Boddy, Raford D., Ph.D. (1980-2004) ........................................Professor of Economics
Boe, Alfred F., Ph.D. (1968-2003)............................ Associate Professor of English and Comparative Literature
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
Boostrom, Ronald L., D.Crim. (1971-1996)............... Professor of Public Administration and Urban Studies
Borges, Marilyn A., Ph.D. (1974-2001) .......................................Professor of Psychology Boskin, Warren D., Ed.D. (1965-1998) ................. Associate Professor of Public Health Bost, John C., J.D. (1979-2003).....................................................Professor of Finance Botkin, Patricia T., Ed.D. (1969-1988)............ Associate Professor of Teacher Education Brady, F. Neil, Ph.D. (1982-1994) .......................................... Professor of Management Brady, Richard C., Ph.D. (1977-1998) .............Associate Professor of Special Education Branca, Nicholas A., Ed.D. (1976-2002). $\qquad$ ..Professor of Mathematics Branstetter, R. Deane, Ph.D. (1955-1981)...............Professor of Mathematical Sciences Brashear, Howard C., Ph.D. (1968-1992) ....................................... Professor of English Bray, Henry G., Ph.D. (1962-1997) ................................ Professor of Mathematical and Computer Sciences
BreindI, Michael J., Ph.D. (1986-2003).. $\qquad$ .Professor of Biology
Brennen, E. Clifford, D.S.W. (1978-1983) Professor of Social Work
Broadbent, Harry H., M.S. (1949-1979)......... Associate Professor of Physical Education
Broderick, William A., Ed.D. (1977-1994) ..... Administrator, Media Technology Services

Brodshatzer, Arthur, D.B.A. (1956-1986)................................. Professor of Accountancy Broom, Betty L., Ph.D. (1979-2003, except F'85-S'86) ..Associate Professor of Nursing
Broom, Glen M., Ph.D. (1979-2003) .....................................ofessor of Communication
Brown, Lee, Ph.D. (1978-1994).
.......... $\qquad$ Professor of Journalism
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
Bruderer, Conrad, D.M. (1963-1996)................................................ Professor of Music
Brunson, Theodore R., D.M.A. (1966-1991) ..........................................essor of Music
Bryson, Jeff B., Ph.D. (1970-2004) ...................................... Professor of Psychology
Buck, Robert E., Ph.D. (1969-2005) ...........................Associate Professor of Sociology
Buckalew, James K., Ph.D. (1967-1999) ...........................Professor of Communication
Bumpus, Jerry D., M.F.A. (1971-1996) ..............................................efessor of English
Burdick, David L., Ph.D. (1968-1995) ..... Associate Professor of Mathematical Sciences
Burgess, William C., Ed.D. (1961-1992)........................... Professor of Health Science
Burnett, Lowell J., Ph.D. (1972-2001) ....................................... Professor of Physics
Burnside, Houston M., Ph.D. (1968-1991) ..................... Professor of Teacher Education
Butler, David H., Ph.D. (1981-2002)................................... Professor of Accountancy
Butler, Gerald J., Ph.D. (1968-2005).......................................... Professor of English
Butler, Harry, Ph.D. (1975-1990) ..............................................fessor of Social Work
Butler, Mark C., Ph.D. (1981-2002).......................................... Professor of Management
Calavita, Nico, Ph.D. (1980-2004) ..................... Professor of Public Administration and Urban Studies
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
Cargille, Douglas A., M.A., M.L.S. (1978-2001) $\qquad$ .Librarian
Carlson, David H., Ph.D. (1982-2002). Professor of Mathematics
Carmichael, Nancy M., Ph.D. (1968-1995)..................... Assistant Professor of Biology
Carpenter, Roger E., Ph.D. (1963-1993) .................................................essor of Biology
Carter, J. E. Lindsay, Ph.D. (1962-1992)....................... Professor of Physical Education
Case, Thomas E., Ph.D. (1961-1998)......................................... Professor of Spanish
Castro (Castillo), Susana D., Ph.D. (1985-1994)........................... Professor of Spanish
Cave, Mary F., M.A. (1946-1977) ...................Associate Professor of Physical Education
Cegelka, Patricia T., Ed.D. (1980-2004).........................Professor of Special Education
Chambers, Norman E., Ph.D. (1972-2001) ....................... Professor of Africana Studies
Chan, Lillian L., M.A.L.S. (1969-1998).................................................................ibrarian
Chan, S. Yun, Ph.D. (1965-1979) ............................. Professor of Electrical Engineering
Chandler, Shelly E., Ph.D. (1966-2003) .......................Associate Professor of Sociology
Chang, Ching-Ten, Ph.D. (1979-2004) .................................. Professor of Electrical and Computer Engineering
Chang, Howard H., Ph.D., Professional Degree in Civil and Environmental Engineering (1967-2003).................................Professor of Civil and Environmental Engineering
Charles, Carol M., Ph.D. (1961-1988).......................... Professor of Teacher Education
Chater, Elizabeth E., M.A. (1964-1977)...............................................efessor of English
Cheek, William F., Ph.D. (1968-2004) ............................................ Professor of History
Chen, Lo-chai, Ph.D. (1969-2001)...................................................efessor of Biology
Cherin, Antony C., Ph.D. (1982-2003).............................................fessor of Finance
Chou, Fang-Hui, Ph.D., Professional Degree in Civil and Environmental Engineering (1969-2003) .................................. Professor of Civil and Environmental Engineering
Chow, Chee W., Ph.D. (1984-2005)....................................... Professor of Accountancy
Christensen, C. Ben, Ph.D. (1968-2000) ..................................... Professor of Spanish
Christensen, Kathee M., Ph.D. (1978-2004) ........... Professor of Speech, Language, and Hearing Sciences
Chu, Paochin, Ph.D (1967-2001) ............................................. Professor of History
Clapp, James A., Ph.D. (1968-2001).........................Professor of Public Administration and Urban Studies
Clark, Mary E., Ph.D. (1969-1986)......................................................essor of Biology
Clement, Norris C., Ph.D. (1968-2000) ................................... Professor of Economics
Cobble, James W., Ph.D. (1973-2002)........................Vice President for Research and Dean, Graduate Division; Professor of Chemistry

Cohn, Theodore J., Ph.D. (1964-1992) ........................................ Professor of Biology Coleman, Kathleen L., M.A., M.S.L.S. (1973-2002).........................................Librarian
Collier, Boyd D., Ph.D. (1966-1998) ..................................................essor of Biology
Collier, Gerald, Ph.D. (1961-1995) ................................................. ${ }^{\text {Professor of Biology }}$
Conly, John F., Ph.D (1962-2003).............................Professor of Aerospace Engineering and Engineering Mechanics
Conway, John B., Ph.D. (1981-1992) ................................... Professor of Public Health
Cooke, Gwen C., Ph.D. (1978-1992) ................................. Professor of Family Studies and Consumer Sciences
Cooper, Gwen O., Ed.D. (1966-1991)..................................................... Counselor
Cottrell, Ann B., Ph.D. (1967-1999) ........................................ Professor of Sociology
Cottrell, Don M., Ph.D. (1967-1998)..................................................essor of Physics
Cox, George W., Ph.D. (1962-1996)......................................................fessor of Biology
Cox, Thomas J., Ph.D. (1975-2000).......................................... Professor of French
Cox, Thomas R., Ph.D. (1967-1996) .....................................................essor of History
Craig, George T., Ph.D (1968-2001)...................... Professor of Mechanical Engineering
Crain, Melvin, Ph.D. (1959-1983)................................. Professor of Political Science
Crisley, Cornelius J., M.L.S. (1962-1990) ........................... Senior Assistant Librarian
Cullen, F. Patricia, Ph.D. (1964-1985)........................ Professor of Physical Education
Cummins, Emery J., Ph.D. (1966-2000)..............................Professor of Counseling and School Psychology
Cunniff, Roger L., Ph.D. (1967-2000) ............................................. Professor of History
Curry, Joan F., Ed.D. (1972-1997) ............................... Professor of Teacher Education
Cutter, Charles H., Ph.D. (1968-2002) ............... Associate Professor of Humanities and Political Science
Darley, Richard D., Ph.D. (1961-1980) ................................... Professor of Marketing
Daub, Jr., Clarence T., Ph.D. (1967-1999) .................................Professor of Astronomy
Davies, Darlene G., Ed.S. (1976-1994) ..............Assistant Professor of Communicative Disorders
Davies, Jr., Thomas M., Ph.D (1968-2001) ................................ Professor of History
Davis, Craig H., Ph.D. (1967-1991) ...............................Assistant Professor of Biology
Davis, II, Glover T., M.E.A. (1966-2004).............................................fessor of English
Davis, Inger P., Ph.D. (1977-1996) .................................................efessor of Social Work
Davis, Roger A., Ph.D. (1992-2004) .................................................
Dean, Alfred, Ph.D. (1985-2000)....................................................essor of Social Work
Deaton, Edmund I., Ph.D. (1960-1992)....................Professor of Mathematical Sciences
Defran, Richard H., Ph.D. (1970-2002) ..................Associate Professor of Psychology
DeLora, Jack R., Ph.D. (1955-1986)...................................... Professor of Sociology
Dessel, Norman F., Ph.D. (1961-1992) ........................... Professor of Natural Science
Deutsch, Francine, Ph.D. (1981-1999) ........ Professor of Child and Family Development
Dexter, Deborah M., Ph.D. (1967-2001) ..................................... Professor of Biology
Dharmarajan, Sangiah Nadar, Ph.D. (1960-1997).................... Professor of Aerospace Engineering and Engineering Mechanics
Dicken, Charles F., Ph.D. (1962-1995) .........................................efessor of Psychology
Dickerson, Mary E., Ph.D. (1967-1990) ................ Assistant Professor of Family Studies and Consumer Sciences
Dickinson, Fidelia R., Ph.D. (1966-1990)................................................................
Diehl, William P., Ph.D. (1968-1997) ............................. Associate Professor of Biology
Dillon (Salerno), M. Constance, M.S. (1964-1992)...................... Professor of Nursing
Dintrone, Charles V., M.A., M.L.S. (1972-2005)............................................. Librarian
Dintrone, Patricia N.L., Ph.D. (1989-2006) ............... Assistant Dean for Student Affairs, College of Business Administration; Lecturer in Management
Dirks, John H., M.F.A. (1947-1976)
.. Professor of Art
Dirksen, Dennis A., Ed.D. (1969-1992)..................... Professor of Industrial Technology
Dobbs, Matti F., Ph.D. (1990-1999) ..........Associate Professor of Public Administration and Urban Studies
Dominguez, Jesus Y., M.F.A. (1976-2002)....... Professor of Art, Design, and Art History
Donahue, Thomas S., Ph.D. (1968-2003).................................. Professor of Linguistics
Donald, John D., Ph.D. (1978-2004)............................... Professor of Computer Science
Doorlag, Donald H., Ph.D. (1970-1998)........................ Professor of Special Education
Dorris, Helen L., M.S. (1952-1982) ............................. Professor of Family Studies and Consumer Sciences

Dowler, Michael J., Ph.D. (1971-2001)..........................................Professor of Biology Downey, Carolyn J., Ph.D. (1988-2004)....Associate Professor of Educational Leadership Downing, Christine R., Ph.D. (1974-1992) ...................... Professor of Religious Studies DuBois, Barbara C., Ph.D. (1989-2004) ...................Assistant Professor of Gerontology Duckworth, Joseph B., Ed.D. (1968-1998) ......................Professor of Teacher Education DuFault, David V., Ph.D. (1962-1999) .............................Associate Professor of History Dukas, Vytas, Ph.D. (1959-1988)
Dumlao, Gerald C., M.F.A. (1977-1998) ................................Associate Professor of Art Duncan, Mary R., Ph.D. (1973-2001).......... Professor of Recreation, Parks and Tourism Dunkle, Harvey I., Ph.D. (1963-1987)............................ Associate Professor of German
Dunn, Ross E., Ph.D. (1968-2003) $\qquad$ Professor of History
Earnest, Sue W., Ph.D. (1947-1973) ........Professor of Speech Pathology and Audiology Ebert, Thomas A., Ph.D. (1969-1999) $\qquad$ Professor of Biology
Eidemiller, Donald I., Ph.D. (1956-1983) ................................. Professor of Geography
Eisemann, Kurt, Ph.D. (1982-1992) ........................Professor of Mathematical Sciences
Eisner, Robert E., Ph.D. (1970-2003) .................... Professor of Classics and Humanities
El-Assal, Mohamed M.E., Ph.D. (1967-1992). $\qquad$ Professor of Sociology
Elgin, Suzette, Ph.D. (1972-1981)............................. Associate Professor of Linguistics
Elizondo, Sergio D., Ph.D. (1994-2005)...Professor of Spanish, Imperial Valley Campus
Elliott, Rosalie C., Ph.D. (1968-1982)....................... Professor of Elementary Education
Elwin, John D., Ph.D. (1969-2004)........................................ Professor of Mathematics
Emerick, Robert E., Ph.D. (1968-2004)...................................... Professor of Sociology
Erickson, Paul, Ed.D. (1963-1986) .................................Professor of Teacher Education
Espín, Olivia M., Ph.D. (1990-2002) .............................. Professor of Women's Studies
Esser, Janet B., Ph.D. (1975-1999) .......................................................Professor of Art
Estes, Russell G., Ed.D. (1963-1992)............................................... Professor of Music
Etheridge, Richard E., Ph.D. (1961-1992)......................................Professor of Biology
Farber, Gerald H., Ph.D. (1968-2004) .... Professor of English and Comparative Literature
Fatemi, Khosrow, Ph.D. (1998-2004).............................. Dean, Imperial Valley Campus,
Professor of Management, Imperial Valley Campus
Faulkner, D. George, M.S. (1983-1992) .....................Lecturer in Aerospace Engineering and Engineering Mechanics
Feenberg, Andrew L., Ph.D. (1969-2004) ................................. Professor of Philosophy
Feeney, William R., Ph.D. (1974-1997) ............. Associate Professor of Information and Decision Systems
Feher, Elsa, Ph.D. (1971-1997) ..................................................... Professor of Physics
Feierabend, Ivo K., Ph.D. (1959-1992) $\qquad$ Professor of Political Science
Feinberg, Lawrence B., Ph.D. (1977-2002) ...Associate Vice President for Research and Technology, Graduate and Research Affairs; Professor of Counseling and School Psychology
Fenson, Larry, Ph.D. (1975-2003) ........................................... Professor of Psychology
FerreI, Dale B., M.B.A. (1957-1977) .........................................Professor of Accounting
Fetzer, Leland A., Ph.D. (1966-1992)............................................ Professor of Russian
Fields, Carolyn B., M.L.S. (1985-1997) ............................................Associate Librarian
Filner, Robert E., Ph.D. (1970-1992)............................... Associate Professor of History
Fisch, Arline M., M.A. (1961-1996).......................................................Professor of Art
Fisher, Horace H., Ph.D. (1955-1977) .............................Associate Professor of Finance
Fisher, Kathleen M., Ph.D. (1988-2004) .........................................Professor of Biology
Flagg, Joan M., Ph.D. (1969-2002)................................Associate Professor of Nursing
Flatley, Marie E., Ph.D. (1979-2006) .... Professor of Information and Decision Systems
Flemion, Philip F., Ph.D. (1968-1998) ............................Associate Professor of History
Forbing, Shirley E., Ed.D. (1969-1992) ...........................Professor of Special Education
Ford, David H., Ed.D. (1967-1994) ..................Associate Professor of Teacher Education
Ford, Richard F., Ph.D. (1964-1997) ..............................................Professor of Biology
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
Francis, Peter R., Ph.D. (1981-2003)...... Professor of Exercise and Nutritional Sciences
Franz, Edward P., M.A. (1965-2003) ...... Associate Professor of Exercise and Nutritional Sciences
Franzini, Louis R., Ph.D. (1969-2001) $\qquad$ Professor of Psychology
Fredrich, Barbara E., Ph.D. (1972-2004) $\qquad$ Professor of Geography

Freitas, Lorraine, Ph.D. (1984-2004)............................ Associate Professor of Nursing 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
Futch, David G., Ph.D. (1967-1998) $\qquad$ . Associate Professor of Biology
Gallo, Jr., Philip S., Ph.D. (1963-1996)...........................................Professor of Psychology
Gange, Samuel J., Ed.D. (1969-1995) ............ Counseling Psychologist, Counseling and Psychological Services
Garrett, Kenneth C., M.Div. (1994-2003) $\qquad$ Lecturer in Accountancy
Garrison, Betty B., Ph.D. (1962-1996) ..................... Professor of Mathematical Sciences 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 Gefter, Irving, Ph.D. (1970-1992)..................... Assistant Professor of Religious Studies Gega, Peter C., Ed.D. (1955-1987) ................................ Professor of Teacher Education Genovese, E. Nicholas, Ph.D. (1970-2003) .......... Professor of Classics and Humanities Genzlinger, Cleve K., M.M. (1957-1991) $\qquad$ Professor of Music
Getis, Arthur, Ph.D. (1990-2004).......... The Stephen and Mary Birch Foundation Chair in Geographical Studies; Professor of Geography
Ghilbert, Jeanne S., M.A. (1965-1982).............................Assistant Professor of French Ghorpade, Jaisingh V., Ph.D. (1965-2000) ............................ Professor of Management Gibson, E. Dana, Ph.D. (1947-1971)...........................Professor of Information Systems Gifford, Adam, Ph.D. (1954-1989) ............................................Professor of Economics
Gilbreath, Stuart H., Ph.D. (1968-2003) ............. Professor of Public Administration and Urban Studies
Gillette, Thomas L., Ph.D. (1961-1989) Professor of Sociology
Gitchoff, G. Thomas, D.Crim. (1969-2001)................ Professor of Public Administration and Urban Studies
Gitman, Lawrence J., Ph.D. (1989-2004) ........................................Professor of Finance
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
Goyne, Carol L., M.A., M.S.L.S. (1969-2002).................................. Associate Librarian
Graham, William K., Ph.D. (1973-2003) ..................................Professor of Psychology
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
Green, Louis C., Ph.D. (1976-2003)..........................................Professor of Economics
Greenfeld, Philip J., Ph.D. (1969-2005) ................................Professor of Anthropology
Greenwood, Ned H., Ph.D. (1964-1995) ....................................Professor of Geography
Gregory, Sinda J., Ph.D. (1977-2005, except S'84) ........................ Professor of English
Griffin, Ernst C., Ph.D. (1972-2004) ..... Special Assistant to the Associate Vice President for Academic Affairs; Professor of Geography
Griffin, Herschel E., M.D. (1980-1987) .................................. Professor of Public Health
Griffin, Ronald W., Ph.D. (1967-2001).....................................Professor of Social Work
Gripp, Richard C., Ph.D. (1958-1985).............................. Professor of Political Science
Groff, Patrick J., Ed.D. (1955-1981)...........................Professor of Elementary Education
Gross, George C., Ph.D. (1961-1985) ......................................Professor of English and Comparative Literature
Grossberg, John M., Ph.D. (1962-1995)...................................Professor of Psychology
Grubbs, Edward J., Ph.D. (1961-1997) .......................................Professor of Chemistry
Guentzler, William D., Ph.D. (1968-2004)................ Professor of Industrial Technology
Guidry, Rosalind, Ph.D. (1970-1989).......................Associate Professor of Social Work
Gulino, Claire, Ed.D. (1982-1991)................................................. Professor of Nursing
Gumbiner, Judith G., M.A. (1967-2004)..........Director, Career Services, Student Affairs; Counselor
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

Haas, Robert W., Ph.D. (1967-1997)................................................essor of Marketing Hager, Richard A., Ph.D. (1967-2000) ............................Professor of Mathematical and Computer Sciences
Hale, E. Alan, Ph.D. (1957-1987) $\qquad$ Professor of Marketing
Hambleton, John W., Ph.D. (1969-2003) .................. Associate Professor of Economics Hamilton, Charles D., Ph.D. (1974-2001)...................Professor of History and Classics Hammer, Gerald K., Ed.D. (1963-1992) ....................Professor of Industrial Technology Hampton, David R., Ph.D., J.D. (1964-2004) ........................ Professor of Management Hanchett, William F., Ph.D. (1956-1987).................................... Professor of History Hanscom, III, Zac, Ph.D. (1978-2002)..........................Associate Professor of Biology Hanson, Robert F., Rec.D. (1962-1983) ........................................fessor of Recreation
Harari, Herbert, Ph.D. (1966-1987)..................................... Professor of Psychology
Harder, Donald F., Ed.D. (1960-1983) ........................... Counselor, Counseling Services
Harkányi, Katalin, M.L.S. (1969-2003) .............................................................Librarian
Harmon, James E., Ph.D. (1964-1981) ......................... Associate Professor of Political Science, Imperial Valley Campus
Harris, Mary E., M.A.L.S. (1982-1992).........................................Associate Librarian Harrison, Patrick J., Ph.D. (1970-2000)................ Professor of Educational Technology Hartung, Barbara W., Ph.D. (1976-2001)................ Executive Assistant to the President; Professor of Communication
Harvey, Anne-Charlotte, Ph.D. (1984-2003) ......................................fessor of Theatre Harvey, A. Raymond, Ph.D. (1949-1983)................Professor of Mathematical Sciences
Harvey, Michael L., Ph.D. (1969-2001) ................................................esssor of Theatre
Hatch, Richard A., Ph.D. (1975-2000)... Professor of Information and Decision Systems
Hawley, Peggy J., Ph.D. (1968-1988) ....................... Professor of Counselor Education
Haworth, Glenn 0., D.S.W. (1966-1987) .......................................fessor of Social Work
Hayes, Charlotte E., M.S. (1972-2004) .............................. Counselor, Counseling and Psychological Services
Hazen, William E., Ph.D. (1962-1988)..............................................esssor of Biology
Head, Gerald L., Ph.D. (1964-1999) ................................................fessor of Spanish
Heighton, Elizabeth J., M.S. (1966-1992)..... Professor of Telecommunications and Film
Heinrichs, Waldo, Ph.D. (1991-1996) ................................................. Professor of History
Hellberg, Lars H., Ph.D. (1956-1992) ......................................Professor of Chemistry
Hemmingsen, Barbara B., Ph.D. (1973-2004) ................................... Professor of Biology
Henderson, Joel H., Ph.D. (1971-2000)...................Professor of Public Administration and Urban Studies
Henry, Edward O., Ph.D. (1974-2004)............................... Professor of Anthropology
Hewes, Dorothy W., Ph.D. (1974-1992) ........................Professor of Family Studies and Consumer Sciences
Heyman, Neil M., Ph.D. (1969-2002). $\qquad$ Professor of History
Higgins, Winifred H., Ph.D. (1964-1983) $\qquad$ Professor of Art
Hill, Howard, M.A. (1967-2000) .............................................ssociate Professor of Music
Hill, Jr., Richard B., Ph.D. (1969-1999).......................Assistant Professor of Sociology, Imperial Valley Campus
Hill, Wayne O., Ed.D. (1955-1983). $\qquad$ Professor of Elementary Education
Hillix, William A., Ph.D. (1963-1992, except 1967-1969)........ Professor of Psychology
Himes, Ronald S., Ph.D. (1969-2002)................................ Professor of Anthropology
Hines, Jeanette D., D.N.S. (1977-1991) ......................Associate Professor of Nursing
Hintzman, William R., Ph.D. (1969-2000) .......Associate Professor of Mathematical and Computer Sciences
Hippaka, William H., Jur.D. (1957-1990). $\qquad$ Professor of Finance
Ho, Hung-Ta, Ph.D. (1966-1991) ...................................fessor of Mathematical Sciences
Hobbs, John A., Ph.D. (1964-1998)....................Associate Professor of Political Science
Hogg, Merle E., Ph.D. (1962-1992).....................................................essor of Music
Hoidal, Oddvar K., Ph.D. (1967-2003) .......................................... Professor of History
Holmes, Calvin V., Ph.D. (1956-1992) ....................Professor of Mathematical Sciences
Hoover, Grace V., B.S.L.S. (1956-1981) .............................................Asociate Librarian
Hopkins, Jack R., M.F.A. (1961-1986) .....................................................essor of Art
Hopkins, Ronald H., Ph.D. (1991-1998)................. Vice President for Academic Affairs; Professor of Psychology
Hostetler, David K., Ed.D. (1966-1982)..............................................................

Hough, Richard L., Ph.D. (1983-2001) ........................................ Professor of Sociology Houston, Jr., Arthur L., Ph.D. (1986-2002)..........................................essor of Finance Houston, Carol O., Ph.D. (1986-2004) ......................................Pofessor of Accountancy Howard, Gordon S., Ph.D. (1968-1983) ...................................... Professor of Drama Howard, Raymond C., Ed.D. (1974-1989)...................Associate Professor of Counselor Education
Hoyt, Jack W., Ph.D. (1981-1992)........................ Professor of Mechanical Engineering Huckle, Patricia, Ph.D. (1975-2001).............................Professor of Women's Studies Huffman, Edward W., Ph.D. (1955-1980)........................................... Professor of Zoology Hughes, Margaret J., Ph.D. (1997-2004).................Associate Professor of Social Work Hungate, Robert P., Ph.D. (1961-1987, except 1965-1969)............ Professor of Finance Hunrichs, William A., Ph.D. (1957-1985)....................................ofessor of Psychology Hunsaker, II, Don, Ph.D. (1960-1996).................................................fessor of Biology Hunter, Lawrence B., M.A. (1963-1989) .............................................. Professor of Art Huntley, David, Ph.D. (1978-2005) .......................... Professor of Geological Sciences Hussain, Nihad A., Ph.D. (1969-2000).................. Professor of Mechanical Engineering Hutchins, Robert C., D.B.A. (1968-1998)........................................Professor of Finance Hutchinson, George, Ph.D. (1973-1994)..................Associate Professor of Recreation, Parks and Tourism
Ima, Kenji, Ph.D. (1972-2000) ............................................. Professor of Sociology
Ingham, Muriel B., Ph.D. (1967-1981) ...................................................efessor of English
Ingmanson, Dale E., Ed.D. (1968-1999) ....................... Professor of Teacher Education
Inskeep, Jr., James E., Ph.D. (1960-1990).................... Professor of Teacher Education losupovici, Alexander, Ph.D. (1978-2001)............ Professor of Electrical and Computer Engineering
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
Jacobs, L. Ron, Ph.D. (1982-2005)........ Professor of Administration, Rehabilitation and Postsecondary Education
Jameson, K. Charles, Ph.D. (1965-1995) ............................ Professor of Communication Janssen, Henry L., Ph.D. (1953-1988).............................. Professor of Political Science Jensen, Reilly C., Ph.D. (1958-1992) ..............................................efessor of Chemistry Jiménez-Vera, Arturo, Ph.D. (1970-1992) ....................................... Professor of Spanish Jiracek, George R., Ph.D. (1980-2004) ...................... Professor of Geological Sciences
Johns, Ann M., Ph.D. (1975-2002)...........Professor of Rhetoric and Writing Studies and Linguistics
Johns, David H., Ph.D. (1965-2001) ................................... Professor of Political Science 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, Joseph S., Ph.D. (1967-1999) ............................... Professor of Communication Johnson, Kenneth D., Ph.D. (1972-2001) ....................................... Professor of Biology Johnson, Philip E., M.S.C.E. (1958-1987).........................Professor of Civil Engineering Johnson, Warren A., Ph.D. (1969-1997).....................................ofessor of Geography Johnson, Willard L., Ph.D. (1977-2001, except F'80-S'81 and S'83).......... Professor of Religious Studies
Jones, Kathleen B., Ph.D. (1981-2003) .......................... Professor of Women's Studies
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)...................................................efessor of Chemistry Josephson, Ronald V., Ph.D. (1975-2001)............................. Professor of Exercise and Nutritional Sciences
Kaatz, James M., Ed.D. (1967-1992) ............. Associate Professor of Teacher Education Kahn, Marion J., M.S. (1967-1983) ........................................Professor of Social Work
Kahng, Tae Jin, Ph.D. (1962-1994) ............................... Professor of Political Science
Karen, Robert L., Ph.D. (1964-1985) ............................................efessor of Psychology
Kartman, Arthur E., Ph.D. (1968-2005).........................................fefessor of Economics

Kasch, Frederick W., Ed.D. (1948-1981)........................ Professor of Physical Education Kass, Norman, Ph.D. (1961-1997) .......................................... Professor of Psychology
Keen, Elmer A., Ph.D. (1967-1989).......................................... Professor of Geography
Kehler, Dorothea F., Ph.D. (1970-2001) $\qquad$ Professor of English
Keiser, K. Robert, Ph.D. (1968-2004).................Associate Professor of Political Science
Kelley, Joseph B., D.S.W. (Under contract 1968-1969; 1970-1998)..............Professor of Social Work
Kelly, Beatrice L., Ph.D. (1967-1983) ....................................Professor of Microbiology
KendalI, W. Lloyd, Ed.D. (1961-1992)............................Professor of Teacher Education
Kern, J. Philip, Ph.D. (1968-1994) .............................. Professor of Geological Sciences
Kessler, Lois P., M.A. (1969-1990)...................... Associate Professor of Health Science 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
King, Harry A., Ph.D. (1978-1997) .......... Professor of Exercise and Nutritional Sciences
Kinsey, Margaret E., M.A. (1961-1972)..........................................Circulation Librarian
Kish, Kathleen V., Ph.D. (1999-2004) ........................................... Professor of Spanish
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
Kochanski, Adrian J., Ph.D. (1969-1983)...................Professor of Public Administration and Urban Studies
Kohen, Janet A., Ph.D. (1980-2001) ................ Associate Professor of Women's 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
Kornweibel, Jr., Theodore, Ph.D. (1977-2001)..................Professor of Africana Studies
Krekorian, Neil, Ph.D. (1970-2001)...............................................Professor of Biology
Krisans, Skaidrite, Ph.D. (1969-2002) ...............................................Professor Biology
Krishnamoorthy, Govindarajalu, Ph.D. (1968-2003)..................... Professor of Civil and Environmental Engineering
Krummenacher, Daniel, Ph.D. (1968-1988)................ Professor of Geological Sciences
Kuhlman, Natalie A., Ph.D. (1979-2003) .......... Professor of Policy Studies in Language and Cross-Cultural Education
Kukkonen, Ruth M., M.S.W. (1973-1989) ................................Professor of Social Work
Kummerow, Jochen, Ph.D., nat. (1973-1990) ................................Professor of Biology
Kushner, Howard I., Ph.D. (1980-2002) ......................................... Professor of History
Kuznets, Lois R., Ph.D. (1985-1996).............................................. Professor of English
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
Lamke, Gene G., M.A. (1973-2006) ............ Professor of Recreation, Parks and Tourism
LaMonica, Grace, M.S. (1966-1992)...............................Assistant Professor of Nursing
Landis, Jean, M.S. (1968-1979).....................Assistant Professor of Physical Education
Landis, Vincent J., Ph.D. (1954-1997).......................................Professor of Chemistry
Landsverk, John A., Ph.D (1990-2004) ....................................Professor of Social Work
Langenbach, Robert G., Ed.D. (1959-1981)................Professor of Information Systems
Lantz, John M., Ph.D. (1986-1998) ............................................... Professor of Nursing
Latta, Raymond F., Ph.D. (1977-2002)................... Professor of Educational Leadership
Lawson, Richard H., Ph.D. (1957-1984, except 1976-1984) .......... Professor of German
Leach, Larry L., Ph.D. (1968-2003) ..................................... Professor of Anthropology
Leasure, J. William, Ph.D. (1962-1992) ................................... Professor of Economics
Lebherz, Herbert G., Ph.D. (1976-1996) .....................................Professor of Chemistry
Leckart, Bruce T., Ph.D. (1968-1993)....................................... Professor of Psychology
Lee, Dalton S., Ph.D. (1985-2003) ......Associate Professor of Public Administration and Urban Studies
Lee, Raymond, Ph.D. (1977-1992). $\qquad$ Associate Professor of Psychology
Lee, Robert E., M.A. (1956-1983) .................Professor of Telecommunications and Film
Leerhoff, Ruth E., M.A. (1964-1991) ................................................... Librarian
Lemus, George, Ph.D. (1960-1991)
. Professor of Spanish

Leslie, Norman C., M.N. (1969-1988) .............................Assistant Professor of Nursing Lewin, Harlan J., Ph.D. (1967-2000) ................. Associate Professor of Political Science Lienert, Charles, Ed.D. (1954-1977) ..................Professor of Educational Administration Lightner, Kevin M., Ph.D. (1968-2004) ...................................Professor of Accountancy Lilly, Roger A., Ph.D. (1968-2001).................................................Professor of Physics Lin, Mao-Shiu, Ph.D. (1966-2002) ......Professor of Electrical and Computer Engineering Lindgren, Donald A., Ph.D. (1965-1992) . $\qquad$ . Professor of Marketing Lippold, Lois K., Ph.D. (1968-2003) . $\qquad$ .Professor of Anthropology Little, D. Richard, Ph.D. (1974-1995) ............................... Professor of Political Science Lodge, Chester R., Ph.D. (1954-1988)....................................Professor of Electrical and Computer Engineering
Longenecker, Martha, M.F.A. (1955-1981) $\qquad$ Professor of Art Lookinland, Sandra, Ph.D. (1981-2004, except 1997-2002).......... Professor of Nursing Loomis, David M., M.M. (1961-1983) .............................. Associate Professor of Music Loveridge, Catherine E., Ph.D. (1983-2003) . Professor of Nursing Lujan, Jaime L., Ph.D. (1976-2004) ............... Associate Professor of Teacher Education Lutz, Donald A., Ph.D. (1986-2004) .......................................Professor of Mathematics Lybarger, Alvin E., Ed.D. (1970-1992) ... Associate Professor of Mechanical Engineering Lynch, Eleanor W., Ph.D. (1979-2003)............................ Professor of Special Education Lynn, Elizabeth, Ph.D. (1963-1988) ..........................Associate Professor of Psychology Lyons-Lawrence, Carolena L., Ph.D. (1987-2004) .......................Associate Professor of Information and Decision Systems
MacDonald, Gretchen, Ph.D. (1966-1981)................ Associate Professor of Study Skills
Macky, David W., Ph.D. (1969-1998)...............Associate Professor of Mathematical and Computer Sciences
Madhavan, Murugappa C., Ph.D. (1968-1999). $\qquad$ .Professor of Economics and Asian Studies
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
Mann, Richard L., M.S.E.E. (1968-1982) ...............................Professor of Electrical and Computer Engineering
Mansfield, Jr., George A., M.S.M.E., Professional Degree in Mechanical Engineering (1968-1994).

Professor of Mechanical Engineering
Marcus, Bernard, Ph.D. (1966-1996).......Associate Professor of Mathematical Sciences
Marino, Leonard R., Ph.D. (1973-2006) ................................Professor of Electrical and Computer Engineering
Marosz, Wanda A., M.A. (1967-1986)......Associate Professor of Mathematical Sciences
Marovac, Nenad, Ph.D. (1980-2003) ............................. Professor of Computer Science
Marshak, Celia L., Ph.D. (1973-1993) ...... Assistant Dean for Student Affairs, College of Sciences
Marshall, C. Monte, Ph.D. (1975-2001)...................... Professor of Geological Sciences
Marsters, Harold L., M.A. (1962-1992) ..... Associate Professor of Industrial Technology
Martin, Donald R., Ph.D. (1969-2004)...............Associate Dean, College of Professional Studies and Fine Arts; Associate Professor of Communication
Martin, Joan L., Ed.D. (1970-1992) .....................................Professor of Family Studies and Consumer Sciences
Martinez, Julio A., Ph.D. (1973-1992) .............................................Associate Librarian
Massey, Gail A., Ph.D. (1981-1997) ...................... Professor of Electrical and Computer Engineering
Mathewson, James H., Ph.D. (1964-1992).................................. Professor of Chemistry
Max, Stefan L., Ph.D. (1964-1984) ................................................. Professor of French
May, Thomas L., Ph.D. (1971-1998) ......................... Associate Professor of Astronomy
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
McArthur, David S., Ph.D. (1973-2004) .....................................Professor of Geography
McCaffery, Lawrence F., Ph.D. (1976-2004)......... Professor of English and Comparative Literature
McClard, Q. Donavon, Ph.D. (1966-1986) $\qquad$ . Professor of Special Education
McCordick, Sharon M., Ph.D. (1969-2001)...............Associate Professor of Psychology

McCormack, Alan J., Ed.D. (1987-2004)........................ Professor of Teacher Education McCoy, Leone D., Ph.D. (1967-1990)............................. Professor of Teacher Education
McDean, Harry C., Ph.D. (1971-2003)
3) ....
$\qquad$
$\qquad$ . Professor of History
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).
McGhie, Robert D., Ph.D., Professional Degree in Mechanical Engineering
(1967-1997) ...................................Professor of Civil and Environmental Engineering
McKenzie, Thomas L., Ph.D. (1980-2004) $\qquad$ Professor of Exercise and Nutritional Sciences
McKerrow, Margaret, Ph.D. (1971-2003)........ Professor of Theatre, Television, and Film McLeod, Dan, Ph.D. (1964-1993)......... Professor of English and Comparative Literature McLeod, Douglas B., Ph.D. (1972-2001) ............................... Professor of Mathematics McLoney, Wirt, Ed.D. (1949-1974) ..................................Professor of Industrial Studies McTaggart, Aubrey C., Ph.D. (1962-1992) .......................... Professor of Health Science Meador, Thomas C., M.A. (1966-2001)...............Associate Professor of Communication Meadows, Eddie S., Ph.D. (1972-2001)........................................... Professor of Music Mehaffy, George L., Ph.D. (1986-1994) ..........................Professor of Teacher Education Meier, Robert A., Ph.D. (1972-1986) .................................... Professor of Accountancy
Meigs, Robert F., Ph.D. (1972-1996) ..................................... Professor of Accountancy
Merino, Alfred, Ed.D. (1974-2001)...................Associate Dean, Imperial Valley Campus; Professor of Administration, Rehabilitation and Postsecondary Education
Miles, E. Walter, Ph.D. (1966-1998) .................................Professor of Political Science
Miller, Allan W., M.F.A. (1963-2004) ............... Professor of Art, Design, and Art History
Miller, Elise, M.A. (1977-2003)........................Lecturer in Rhetoric and Writing Studies
Miller, Ralph Llewellyn, Ph.D. (1963-1996) $\qquad$ Professor of Counseling and School Psychology
Miller, Richard H., Ph.D. (1977-2001) ......................... Professor of Geological Sciences 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
Mitchell, Danlee G., M.S. (1964-2000) ........................................... Professor of Music
Mitton, Daryl G., Ph.D. (1966-1991) ...................................... Professor of Management
Moaney, Eric R., M.F.A., M.S. (1968-1998)........................... Assistant Professor of Art
Moe, Jean T., M.A. (1966-1983).......................................Associate Professor of Music
Moffett, Myrna J., Ph.D. (1968-1998) .............................Assistant Professor of Nursing
Mollenauer, Sandra O., Ph.D. (1970-2003) ............................. Professor of Psychology
Monroe, Ronald E., Ph.D. (1973-1997)..........................................Professor of Biology
Monteverde, John P., Ph.D. (1954-1986)................................. Professor of English and Comparative Literature
Moore, Harold B., Ph.D. (1960-1991) ............................................Professor of Biology
Moore, Mary Jane, Ph.D. (1972-2002)................... Associate Professor of Anthropology
Moramarco, Fred S., Ph.D. (1969-2002)......................................... Professor of English
Moreno, Steve G., Ed.D. (1969-1998) ............................Professor of Teacher Education
Morey, Ann I., Ph.D. (1985-2003) ..............................Distinguished Research Professor; Director, Center for Educational Leadership, Innovation and Policy
Morgan, Charles, M.S. (1949-1985)....................... Professor of Mechanical Engineering
Morris, Rita I., Ph.D. (1990-2002) ................................. Associate Professor of Nursing
Moser, Joseph M., Ph.D. (1959-1998) ............................Professor of Mathematical and Computer Sciences
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
Murphy, Robert J., Ph.D., Professional Degree in Mechanical Engineering (1964-1996).
. Professor of Mechanical Engineering
NageI, Anne L., Ph.D. (1971-2002, except F'71-F'73) ..... Lecturer in Teacher Education
Nagel, Thomas S., Ph.D. (1969-1995) ............................Professor of Teacher Education
Nam, Woo Hyun, Ph.D. (1968-1998) ......................................... Professor of Economics
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 Nelson, Thomas A., Ph.D. (1968-2000) .......................................... Professor of English Nesvig, David T., Ed.D. (1967-1997)............................................................. Counselor Neuman, Donald R., Ph.D. (1967-1991)........................................................ Counselor Neumeyer, Peter F., Ph.D. (1978-1993) ................Professor of English and Comparative Literature
Neyndorff, Hans, Doctorandus (1962-1983).. $\qquad$ .Senior Assistant Librarian Nichols, Alan C., Ph.D. (1964-2000).................. Professor of Communicative Disorders Nichols, Paul F., Ph.D. (1965-1992) .............................................. Professor of Physics

## Noorany, Iraj, Ph.D., Professional Degree in Civil Engineering

(1963-1997)
Professor of Civil and Environmental Engineering
Norman, Nelson F., Ph.D. (1960-1983) $\qquad$ .. Professor of History
Norman, Ronald J., Ph.D. (1985-2000) ... Professor of Information and Decision Systems
Noto, James V., H.S.D. (1969-2001)......................Associate Professor of Public Health
Nower, Leon, Ph.D. (1963-1990)..............Associate Professor of Mathematical Sciences
Núñez, René, Ph.D. (1987-2002) ....Assistant Professor of Chicana and Chicano Studies and Policy Studies in Language and Cross-Cultural Education
Nye, William A., Ph.D. (1962-1996) .............................................. Professor of Finance Oades, Rizalino A., Ph.D. (1969-2002)........................... Associate Professor of History O'Brien, Albert C., Ph.D. (1965-2000) ........................................... Professor of History O'Brien, Bob R., Ph.D. (1966-1995)...........................................Professor of Geography O'Brien, Mary E., Ph.D. (1966-2000) ............................. Associate Professor of Spanish 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

## Ohnysty, Basil, M.S., Professional Degree in Mechanical Engineering

(1967-1997)..
. Professor of Mechanical Engineering
Olson, Jr., Andrew C., Ph.D. (1946-1980) ..................................... Professor of Zoology
Omberg, Edward, Ph.D. (1989-2006)..............................................Professor of Finance
O'Neal, H. Edward, Ph.D. (1961-1994) .......................................Professor of Chemistry
O'Reilly, Peter, Ph.D. (1968-1983)........................................... Professor of Philosophy
Orth, Fredrick J., M.F.A. (1965-2001) .............. Professor of Art, Design, and Art History
Pacheco, Richard, Ph.D. (1979-2003) .............. Professor of Policy Studies in Language and Cross Cultural Education
Padgett, L. Vincent, Ph.D. (1956-1992)............................ Professor of Political Science Palmer, Dennis, A.B. (1965-1997) .................................. Associate Professor of French
Palsson, Gerald D., M.A. (1976-2003). $\qquad$ . Associate Librarian
Panos, Nicholas, M.S.E.E., Professional Degree in Electrical and Computer
Engineering (1968-2001) ...............Professor of Electrical and Computer Engineering
Paolini, Jr., Paul J., Ph.D. (1970-2003) ......................................... Professor of Biology
Park, Chong Jin, Ph.D. (1972-1999) ............................... Professor of Mathematical and Computer Sciences
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
Peddecord, K. MichaeI, Dr.P.H. (1981-2005)......................... Professor of Public Health
Pehrson, Robert B., Ph.D. (1969-1996) ......................... Professor of Teacher Education
Peisner, Earl F., Ed.D. (1961-1990)........... Counselor; Professor of Counselor Education
Pendleton, Wade C., Ph.D. (1969-2002).. $\qquad$ .Professor of Anthropology
Penn, Robert, Ph.D. (1960-1991)..... ....Professor of Psychology
Perczel, Csilla F., Ph.D. (1970-1990).................................... Associate Professor of Art
Person, Gerald A., Ph.D. (1957-1981) ........................Professor of Secondary Education
Peterman, Jr., Lewis E., Ph.D. (1978-2005)..................................... Professor of Music
Peterson, Donald W., Ph.D. (1974-1992) ..................Associate Professor of Recreation, Parks and Tourism
Peterson, Richard H., Ph.D. (1978-1996) ....................................... Professor of History
Phelps, Leroy N., Ph.D. (1966-1990)..............................Associate Professor of Biology
Phillips, Jr., William H., Ed.D. (1963-1991) ................. Professor of Physical Education
Phleger, Charles F., Ph.D. (1971-2001).. $\qquad$ .. Professor of Biology
Pierce, Stephen J., Ph.D. (1984-2004) ...................................Professor of Mathematics
Pierson, Albert Chad, Ph.D. (1954-1983) .............................. Professor of Management

Pierucci, Mauro, Ph.D. (1979-2005) ................. Professor of Aerospace Engineering and Engineering Mechanics
Piland, William E., Ed.D. (1987-2003).......... Professor of Administration, Rehabilitation and Postsecondary Education
Piserchio, Robert J., Ph.D. (1966-2000)....................................... Professor of Physics
Platz, Marvin H., Ed.D. (1955-1983) ......................... Professor of Secondary Education
Plotnik, Rod, Ph.D. (1970-1999) ............................................. Professor of Psychology
Plymale, Harry H., D.V.M. (1962-1991) ...........................Associate Professor of Biology
Pointer, Dennis D., Ph.D. (1991-2002)...................................Professor of Public Health
Polich, John L., Ph.D. (1969-1999).................................Associate Professor of History Imperial Valley Campus
Popp, Dean O., Ph.D. (1969-2003)...............Associate Vice President for Faculty Affairs; Professor of Economics

Poroy, Ibrahim I., Ph.D. (1967-1987)....................................... Professor of Economics
Posner, Walter H., M.A., M.A.L.S. (1962-1988).....................Senior Assistant Librarian
Preston, David L., Ph.D. (1971-2001) ........................................ Professor of Sociology
Pryde, Philip R., Ph.D. (1969-2001) ........................................ Professor of Geography
Psomas, Themistocles, Ph.D. (1952-1982) .............. Associate Professor of Psychology
Ptacek, Anton D., Ph.D. (1965-1992) ........... Associate Professor of Geological Sciences
Quastler, Imre E., Ph.D. (1967-2002)....................................... Professor of Geography
Quinn, Rebecca A., Ph.D. (1971-2001) .......................... Assistant Professor of Exercise and Nutritional Sciences
Radlow, Robert, Ph.D. (1968-1999) $\qquad$ Professor of Psychology
Ramage, Jean C., Ph.D. (1975-1989) ........................ Professor of Counselor Education
Rankin, Janna S., J.D. (1986-1994) ............ Professor of Recreation, Parks and Tourism
Rao, M. V. Rama, Ph.D. (1957-1982) .................... Professor of Mechanical Engineering
Rasmussen, Aaron P., Ph.D. (1971-1980).........Associate Professor of Industrial Studies
Ratty, Frank J., Ph.D. (1954-1984).................................................Professor of Biology
Ray, Eugene A., M.F.A. (1969-1996) .....................................................Professor of Art
Raymer, Paul H., M.S.W. (Under contract 1969-70; 1970-1995) ..... Assistant Professor of Social Work
Real, Michael R., Ph.D. (1980-2000)................................Professor of Communication
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 Rehfuss, Donald E., Ph.D. (1962-2004) ........................................ Professor of Physics 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 Riegel, Barbara Jean, D.N.Sc. (1984-2002, except F'87-S'95) ..... Professor of Nursing Riehman, Lynne, D.S.W. (1976-1986) $\qquad$ Associate Professor of Social Work
Rigby, Ida K., Ph.D. (1976-2005) ..................... Professor of Art, Design, and Art History
Riggs, Dorothy J., Ed.D. (1966-1986) $\qquad$ .. 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
Ring, Morey A., Ph.D. (1962-1995).............................................Professor of Chemistry
Rixman, Eunice E., D.M.A. (1960-1991) ........................ Professor of Teacher Education
Robasciotti, Carole A., M.S. (1980-2004)..................Assistant Dean for Student Affairs, College of Professional Studies and Fine Arts; Lecturer in Exercise and Nutritional Sciences
Robbins, Stephen P., Ph.D. (1979-1993)
Professor of Management
Roberts, Ellis E., Ph.D. (1949-1979) $\qquad$ Professor of Geological Sciences
Rodin, Miriam J., Ph.D. (1966-1999)...................................... Professor of Psychology
Rogers, Gloria H., M.L.S., M.A. (1985-2003) ..................................Associate Librarian
Rogers, John J., M.S. (1963-1996) ....................................................... Professor of Art
Rogers, II, William N., Ph.D. (1968-2003) .......... Professor of English and Comparative Literature

Rohrl, Vivian J., Ph.D, (1965-2001)......................................Professor of Anthropology Rollefson, Gary 0., Ph.D. (1984-1992) ..................................Professor of Anthropology
Romano, Albert, Ph.D. (1963-1990) ........................Professor of Mathematical Sciences
Rosenbaum, Gerald, Ph.D. (1989-1994)..................................Professor of Psychology
Rosenstein, Leon, Ph.D. (1969-2003)...................................... Professor of Philosophy
Ross, Helen Warren, Ph.D. (1973-1998) ..... Professor of Child and Family Development
Ross, James E., Ph.D. (1969-1999)................................Professor of Mathematical and Computer Sciences
Ross, Ramon R., Ed.D. (1961-1992).............................. Professor of Teacher Education Rother, James, Ph.D. (1969-2003)........Professor of English and Comparative Literature Rushall, Brent S., Ph.D. (1985-2004) ...... Professor of Exercise and Nutritional Sciences Sachdeva, Kanwal S., D.B.A. (1976-2004) ......................Associate Professor of Finance Saltz, Daniel, Ph.D. (1959-1995) ............................ Professor of Mathematical Sciences Samovar, Larry A., Ph.D. (1963-2000)...............................Professor of Communication
Samuelson, Richard A., Ph.D., Certified Public Accountant (1973-2000).
.Professor of Accountancy
Sandelin, Mary Lee, M.L.S. (1968-1983).............................. Senior Assistant Librarian
Sanders, Frederick C., Ph.D. (1967-1981)...................... Associate Professor of Speech Communication
Sandlin, Joann S., Ph.D. (1967-1994) ........................................ Professor of Sociology
Sanner, Richard L., Ed.D. (1965-1981)............................................... Media Specialist
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
Savvas, Minas, Ph.D. (1968-2001) .......Professor of English and Comparative Literature
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
Scheck, Dennis C., Ph.D. (1968-2001) Professor of Sociology
Schlesinger, Robert J., Ph.D. (1984-1997).
$\qquad$ Professor of Information and Decision Systems
Schmier, Walter D., J.D. (1967-1975) ................... Associate Professor of Business Law Schulte, Richard H., Ph.D. (1965-2002) ...................................Professor of Psychology Schultze, William A., Ph.D. (1968-2000).......................... Professor of Political Science Schulze, Rolf H.K., Ph.D. (1969-1998) ....................................... Professor of Sociology Schwob, Marion L., M.S. (1934-1960)........... Associate Professor of Physical Education Sciglimpaglia, Donald, D.B.A. (1977-2006) ............................... Professor of Marketing Scollay, Patricia A., Ph.D. (1972-2002).....................Associate Professor of Psychology
Scott, Carole A., Ph.D. (1969-2001) ............................... Dean, Undergraduate Studies; Professor of English
Scutchfield, F. Douglas, M.D. (1980-1997)............................ Professor of Public Health
Sebold, Frederick D., Ph.D. (1969-1987) ..................................Professor of Economics
Segade, Gustavo V., Ph.D. (1967-2000) ........................................ Professor of Spanish
Segal, Evalyn F., Ph.D. (1973-1983) .........................................Professor of Psychology
Seitz, Michael R., Ph.D. (1985-2004) ..................... Professor of Speech, Language, and Hearing Sciences
Selder, Dennis J., Ph.D. (1968-2000) ......Professor of Exercise and Nutritional Sciences Senn, Karen L., Ed.D., M.P.H. (1977-2002) .......................... Professor of Public Health Seright, Orin D., Ph.D. (1967-1997) ..........................Associate Professor of Linguistics
Settle, Robert B., Ph.D. (1972-1988)......................................... Professor of Marketing
Shackelford, Gordon L., M.S. (1975-2004)....................................... Lecturer in Physics
Sharabi, M. Nazmi, Ph.D. (1981-2004) ........................ Associate Professor of Civil and Environmental Engineering
Sharpe, David M., Ed.D. (1977-2004)..........Director, Instructional Technology Services; Senior Vocational Instructor
Shaw, Larry J., Ed.D. (1968-2001)................................. Professor of Teacher Education
Sheldon, John M., Ed.D. (1962-1997) ............................................. Professor of Music
Shepard, David C., Ph.D. (1956-1991) ........................................... Professor of Biology
Sheres, Ita G., Ph.D. (1971-2001) ........Professor of English and Comparative Literature
Sherr, Steven D., Ph.D. (1969-2003) ........................................................... Counselor

Sherrard, William R., Ph.D. (1968-2000) .......................... Professor of Information and Decision Systems
Shields, Allan E., Ph.D. (1949-1977, except 1969-1970)......... Professor of Philosophy Shimoguchi, Wayne M., M.L.I.S. (1988-1995)...................... Senior Assistant Librarian Shira, Jr., Donald W., M.A.L.S. (1958-1986) .........................Senior Assistant Librarian
Shirk, Helen Z., M.F.A. (1976-2005) ................ Professor of Art, Design, and Art History
Shively, Martha J., Ph.D. (1978-2003)........................................... Professor of Nursing
Shojai, Donald A., Ph.D. (1971-2002)..................................... Professor of English and Comparative Literature
Shore, Herbert B., Ph.D. (1975-2002)........................................... Professor of Physics
Short, Jr., Donald R., Ph.D. (1969-2001)........................Professor of Mathematical and Computer Sciences
Short, James L., Ph.D. (1973-2003) $\qquad$ .Professor of Finance
Shutts, William H., Ph.D. (1958-1977) ....................Professor of Aerospace Engineering
Silverman, Malcolm N., Ph.D. (1975-2004) ......... Professor of Spanish and Portuguese
Siman, Alan E., Ph.D. (1974-2002) ..........................Associate Professor of Social Work
Skaar, Donald L., M.S. (1960-1981) ......................................Professor of Electrical and Computer Engineering
Sleet, David A., Ph.D. (1974-1997)......... Professor of Exercise and Nutritional Sciences and Health Science
Smith, Beverly A., M.S. (1968-1996) ............................. Assistant Professor of Exercise and Nutritional Sciences
Smith, Jr., Charles D., Ph.D. (1967-1992)..................................... Professor of History
Smith, John R., Ph.D. (1957-1986) .......................... Associate Professor of Psychology
Smith, Jr., Louis E., Ph.D. (1946-1979)........................................ Professor of Physics
Smith, Newton B., Ph.D. (1954-1986)......................Professor of Mathematical Sciences
Smith, Jr., Ray T., Ph.D. (1964-1996) ............................................ Professor of History
Snudden, Leslie W., D.B.A. (1959-1987)............................... Professor of Accountancy
Snyder, William S., Ph.D. (1960-1990)..................................... Professor of Philosophy
Sondak, Norman E., D.Eng. (1978-2000) .......................... Professor of Information and Decision Systems
Sonntag, Iliana L., M.L.S., M.A. (1980-1991)................................................ Librarian
Sorensen, George W., Ph.D. (1967-1986)...........Professor of Journalism and Sociology
Sorochan, Walter D., H.S.D. (1969-1991) .......................... Professor of Health Science
Soule, John W., Ph.D. (1970-2001)..................................Professor of Political Science
Sowder, Judith T., Ph.D. (1986-2000) ............................. Professor of Mathematical and Computer Sciences
Sowder, Larry K., Ph.D. (1986-2003) $\qquad$ Professor of Mathematics
Sparks, Irving Alan, Ph.D. (1974-1999) ........................... Professor of Religious Studies
Sparrow, Glen W., Ph.D. (1980-2001).................Professor of Public Administration and Urban Studies
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
Spevak, Joseph E., Ph.D. (1969-2006) ............... Assistant Professor of Communication Spinetta, John J., Ph.D. (1972-2003)....................................... Professor of Psychology
Springer, Arthur, Ph.D. (1968-2001)...................... Associate Professor of Mathematical and Computer Sciences
Srbich, Alexander L., Ph.D. (1959-1983) .............................. Professor of Management
Stanford, E. Percil, Ph.D. (1973-2001) ....................................Professor of Social Work
Starr, Raymond G., Ph.D. (1964-1999)........................................... Professor of History
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
Steinberg, Dan, Ph.D. (1989-1998)........................... Associate Professor of Economics
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
Stewart, Douglas B., Ph.D., (1971-2001) ................................. Professor of Economics

Stiehl, Harry C., Ph.D. (1969-1992) ................................................ Professor of English
Stites, Francis N., Ph.D. (1968-2000) ........................................... Professor of History
Stoddart, Jess L., Ph.D. (1966-1998) ............................................ Professor of History
Stone, Hamilton L., B.S. (1947-1971) ....................... Associate Professor of Mechanical Engineering
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
Strand, Paul J., Ph.D. (1977-2004) $\qquad$ Professor of Political Science
Stratton, Frank E., Ph.D., Professional Degree in Civil Engineering
(1966-1997).................................. Professor of Civil and Environmental Engineering
Straub, Lura Lynn, M.C.S. (1948-1978) ...................... Professor of Information Systems
Streshly, William A., Ph.D. (1990-2000) .............................Professor of Administration, Rehabilitation and Postsecondary Education
Strom, David W., Ed.D. (1968-2005).............................. Professor of Teacher Education
Strong, Douglas H., Ph.D. (1964-1990) $\qquad$ Professor of History
Stuart, Robert J., Ph.D. (1969-1987) .....................................Professor of Electrical and Computer Engineering
Stutz, Frederick P., Ph.D. (1970-2004) $\qquad$ .. Professor of Geography
Sucato, Vincent, Ph.D. (1974-2003) .........................Assistant Professor of Social Work
Sucec, Anthony A., Ed.D. (1967-2001)..... Professor of Exercise and Nutritional Sciences
Sullivan, Edward D. S., Ph.D. (1967-1983) ............... Assistant Professor of English and Comparative Literature
Sweedler-Brown, Carol O., Ph.D. (1975-2005)..
.Professor of Rhetoric and Writing Studies
Szabo, Andrew, Ph.D. (1955-1978) ..............................Collection Development Librarian Talamantes, Florence W., Ph.D. (1962-1992) ............... Associate Professor of Spanish Talbert, Freddie D., Ph.D. (1968-2002) ..................... Associate Professor of Astronomy 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
Templin, Jacques D., Ph.D. (1962-1999).......................................Professor of Physics
Terrell, Louis M., Ph.D. (1969-2003)................................ Professor of Political Science
Thiel, Donald W., Ph.D. (1957-1986).............................. Professor of Industrial Studies
Thile, Edmund L., Ph.D. (1967-1998) ................. Professor of Communicative Disorders
Thomas, Beatrice A., M.A. (1954-1977) ........................................ Professor of Nursing
Thompson, Gordon M., Ph.D. (1969-2001)........... Associate Dean, College of Education; Associate Professor of Counseling and School Psychology
Thompson, Patrick W., Ed.D. (1990-1999) ...................... Professor of Mathematical and Computer Sciences
Thompson, Willis H., M.A. (1967-1991).............. Assistant Professor of Natural Science
Threet, Richard L., Ph.D. (1961-1981) ........................ Professor of Geological Sciences
Thwaites, William M., Ph.D. (1965-1995)....................... Associate Professor of Biology
Thyagarajan, Kadayam S., Doctorate of Engineering (1980-1999).............. Professor of Electrical and Computer Engineering
Tollefsen, Dorothy J., M.A. (1946-1972)....................... Professor of Physical Education
Toole, Howard R., Ph.D. (1972-2005).....................................Professor of Accountancy
Tossas, Leila de Irizarry, Ed.D. (1961-1977) .............Professor of Elementary Education
Tozer, Lowell, Ph.D. (1954-1986).........................Professor of English and Comparative Literature
Troxell, Eugene A., Ph.D. (1966-2000) ...................... Associate Professor of Philosophy
Turner, Marjorie S., Ph.D. (1954-1977) .....................................Professor of Economics
Vails-Weber, Dorothy V., M.A. (1970-1998)................................................... Counselor
Valle, Juan Ramon, Ph.D. (1974-1996) .................................... Professor of Social Work
Vandenberg, Pieter A., D.B.A. (1969-2004) ................................... Professor of Finance
Vanderbilt, Kermit, Ph.D. (1962-1988) .....................................Professor of English and Comparative Literature
Vanderwood, Paul J., Ph.D. (1969-1994) ....................................... Professor of History
Van de Wetering, R. Lee, Ph.D. (1960-1992) .......... Professor of Mathematical Sciences
Vanier, Dinoo T., Ph.D. (1970-1998) .......................................... Professor of Marketing
Van Sickle, Douglas J., Ph.D. (1978-2004) ........Director, Counseling and Psychological Services, Student Affairs; Counselor

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
Vartanian, Pershing, Ph.D. (1968-2001) ............................................... Professor of History
Venieris, Yiannis P., Ph.D. (1967-1998) ................................... Professor of Economics
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
Villarino, José R., Ph.D. (1969-2001)............ Professor of Chicana and Chicano Studies
Villone, Arnold L., Ph.D. (1968-1998)............. Professor of Mathematical and Computer Sciences
Vinge, Vernor S., Ph.D. (1972-2000) ...............Associate Professor of Mathematical and Computer Sciences
Walawender, Michael J., Ph.D. (1972-2001)............... Professor of Geological Sciences Walba, Harold, Ph.D. (1949-1986).............................................Professor of Chemistry
Wall, Carey G., Ph.D. (1971-2002).................................................Professor of English
Wallace, Robert D., Litt. D. (1957-1986) .............................................. Professor of Art
Wallace, William J., Ph.D. (1969-2001)......Associate Professor of Geological Sciences and Physics
Wang, Kuo Chang, Ph.D. (1980-1999) ..............Professor of Aerospace Engineering and Engineering Mechanics
Warburton, John T., Ed.D. (1968-1982).................... Associate Professor of Educational Administration
Ward-Steinman, David, D.M.A. (1961-2003).................................... Professor of Music
Warren, Edward W., Ph.D. (1963-1990)................ Professor of Philosophy and Classics Warschauer, Thomas M.D., Ph.D. (1977-2005)..............................Professor of Finance
Watson, Lawrence C., Ph.D. (1967-1992)............................. Professor of Anthropology
Watson, Maria-Barbara, Ph.D. (1976-2003) .................... Professor of Women's Studies
Webb, Charles R., Ph.D. (1949-1972, except 1965)....................... Professor of History
Webb, Charlotte, Ph.D. (1975-2004)......................... Associate Professor of Linguistics
Wedberg, Hale L., Ph.D. (1959-1983).............................................Professor of Botany
Weeter, Raymond D., Ph.D. (1966-1991).......................Associate Professor of Spanish
Weiner, Michael A., Ph.D. (2000-2005) ........................Professor of Asia Pacific Studies
Weissman, Stanley N., Ph.D. (1962-1991) ................................ Professor of Philosophy
Wells, Richard W., M.A. (1961-1994) ............Associate Professor of Physical Education
Wendling, Aubrey, Ph.D. (1954-1982) ....................................... Professor of Sociology
Werner, Joan T., Ph.D. (1965-1998)............................Associate Professor of Sociology
West, John J., M.S. (1969-1989) ..........................................Senior Assistant Librarian
Wetherill, William H., Ph.D. (1957-1982) ........ Professor of Educational Administration
Wheeler, James L., Ph.D. (1968-1999).................... Associate Professor of English and Comparative Literature
Whitman, David G., Ph.D. (1969-2001) ...........Associate Professor of Mathematical and Computer Sciences
Whitney, Dan, Ph.D., J.D. (1966-2000) ................................ Professor of Anthropology

Whittington, O. Ray, Ph.D., Certified Public Accountant (1978-1999)........ Professor of Accountancy
Widmer, Kingsley, Ph.D. (1956-1991) ...Professor of English and Comparative Literature
Wilbur, Robert W., Ph.D. (1974-2004) ................... Associate Dean for Academic Affairs, College of Business Administration; Associate Professor of Finance
Wilding, John H., Ed.D. (1960-1986) $\qquad$ Professor of Teacher Education Wilhelm, Betty Jane, M.A. (1961-1980) .........Assistant Professor of Physical Education Williams, Diane R., M.A. (1975-2002) Associate Professor of Communicative Disorders

Williamson, Gloria R., M.A. (1961-1979)...... Associate Professor of Physical Education
Williamson, James E., Ph.D., Certified Public Accountant (1968-2002)..... Professor of Accountancy

Willis, George C., M.F.A. (1967-2001) ...............................Associate Professor of Dance
Willis, Winnie O., Sc.D. (1984-2004) .................................... Professor of Public Health
Wilson, Carole, M.L.S. (1981-2003)................................................ Associate Librarian
Wilson, Donald G., Ph.D. (1982-1992) .. Lecturer in Electrical and Computer Engineering
Wilson, Wilfred J., Ph.D. (1963-1992) .......................................... Professor of Biology
Winslow, Robert W., Ph.D. (1965-2000).................................... Professor of Sociology
Witherspoon, John P., M.A. (1979-1992)...... Professor of Telecommunications and Film
Wolter, Gerhard, M.S. (1957-1975). Professor of Physics
Woo, Catherine Yi-yu Cho, Ed.D. (1970-1997) .............................. Professor of Chinese
Wood, James L., Ph.D. (1975-2004).......................................... Professor of Sociology
Woodson, John H., Ph.D. (1961-1998) ......................................Professor of Chemistry
Wotruba, Thomas R., Ph.D. (1962-2000) ................................... Professor of Marketing
Wozniak, Dolores A., Ed.D. (1976-2004) ...Dean, College of Health and Human Services, Professor of Nursing
Wright, Penny L., Ph.D. (1972-2002) $\qquad$ Professor of Management
Wright, Richard D., Ph.D. (1964-2002) $\qquad$ Professor of Geography
Wulbern, Julian H., Ph.D. (1966-1993) $\qquad$ Professor of German

Wylie, Donald G., Ph.D. (1966-1992) ........... Professor of Telecommunications and Film Yahr, Charles C., Ph.D. (1955-1988). $\qquad$ rofessor of Geography
Yates, Charles D., M.A. (1970-1998) Professor of Music
Yerkes, Diane M., Ed.D. (1999-2001) ..................Associate Professor of Administration, Rehabilitation and Postsecondary Education
YesseIman, Charlotte B., Ph.D. (1967-1988).................. Professor of Teacher Education Young, Arthur, Ph.D. (1967-2000) .............................................Professor of Astronomy Young, Ronald R., Ph.D. (1971-2003) ........................... Associate Professor of Spanish Zedler, Joy B., Ph.D. (1972-1998).................................................. Professor of Biology Zedler, Paul H., Ph.D. (1969-1998)................................................ Professor of Biology Ziegenfuss, George, Ed.D. (1948-1980) ....................... Professor of Physical Education Zuniga, Maria E., Ph.D. (1985-2002).......................................Professor of Social Work Zyskind, Judith W., Ph.D. (1982-2002) ...........................................Professor of Biology

# Part-Time Faculty 2005-2006 

## ARTS AND LETTERS

Acejo, Henry A., M.A., Filipino
Aguilar, Esther, M.A., Spanish
Allen, Amy L., M.A., Rhetoric and Writing Studies
Alonso-Sed, José, Ph.D., Spanish
Anderson, James T., Ph.D., Philosophy
Ascanio, Ruben, M.A., Spanish
Bandini, Martha, M.A., Italian
Barry, Nelly, M.A., Spanish
Beasley, Edward J., Ph.D., History
Becerra, David, M.A., Spanish
Begler, Elsie B., Ph.D., Arts and Letters, General
Berger, Amy E., M.A., Arts and Letters, General
Boeck, Candace, M.A., M.B.A., Rhetoric and Writing Studies
Boni, Pat, Ph.D., Religious Studies
Borgen, Linda, M.A., Rhetoric and Writing Studies
Brush, Barbara, M.A., Rhetoric and Writing Studies
Bryson, Liane, M.A., Rhetoric and Writing Studies
Butler, María G., M.A., Chicana and Chicano Studies
Cao, Zuoya, Ph.D., Chinese
Carrico, Richard L., M.A., American Indian Studies
Carter, William L., M.S., Economics
Castleman, Bruce A., Ph.D., History
Cavender, Annette, M.A., Rhetoric and Writing Studies
Chagala, James C., Ph.D., Geography
Clague, Christopher K., Ph.D., Economics
Clanton, Gordon, Ph.D., Sociology
Clark Alfaro, Victor, Ph.D., Arts and Letters, General Conway, Fred J., Ph.D., Anthropology
Costello, Matthew, M.F.A., Rhetoric and Writing Studies
Coto, Nancy M., M.A., Spanish
Crawford, Kathleen A., M.A., History
Cruz, Rodolfo, Ph.D., Sociology
Cummings, Tracy C., M.F.A., English
Davies-Morris, Gareth N., M.F.A., Humanities
Davies-Netzley, Sally A.L., Ph.D., Sociology
Davis, Clara I., M.A., Spanish
Davis, Steve Y., Ph.D., Persian
Degueldre, Christian, M.A., Arts and Letters, General; French; Spanish
Dirige, Ofelia V., Dr.P.H., Asia Pacific Studies
Edmonds, Jason L., M.F.A., Africana Studies
Egipto, Rebecca P., M.A., Linguistics
Elliott, Debra A., M.A., Sociology
Emery, Laura C., Ph.D., Rhetoric and Writing Studies
Epps, Richard, M.A., Political Science
Esposito, John M., M.A., Linguistics
Featherstone, C. Victoria, M.F.A., English
Federman, Nancy Jo, Ph.D., Sociology
Fielden, Carl, M.A., Rhetoric and Writing Studies
Finn, Richard D., M.A., Rhetoric and Writing Studies
Fish, Hedda, M.A., Rhetoric and Writing Studies
Flynn, Matthew J., Ph.D., History
Fox, Jamie, M.A., Rhetoric and Writing Studies
Frampton, Edith E., Ph.D., English
Freeman, Roderick A., Ph.D., Philosophy
Freilicher, Melvyn S., C.Phil., English
Galbraith, Mary P., Ph.D., English

Garcia-Tannenhaus, Nuria, M.A., Spanish
Gauss, David R., M.A., Sociology
Gervais, Ayumi M., M.A., Japanese
Gibson, Dewan, M.A., Africana Studies
Gillman, John L., Ph.D., Religious Studies
Gonda, Susan, Ph.D., Women's Studies
Gonzalez, Maria R., M.A., Spanish
Gordon, Robert L., M.A., Economics
Grajeda-Higley, Leilani, M.A., Chicana and Chicano Studies
Granger, John F., Ph.D., English
Greb, G. Allen, Ph.D., Political Science
Guthrie, Wayne L., Ph.D., History
Guzman, Christine, M.A., German
Hallett, Melodie J., M.S., Arts and Letters, General Harley, Bruce, M.A., M.L.S., Anthropology
Hay, Jeffrey T., Ph.D., History
Herrick, Samuel F., Ph.D., Economics
Hoffman, Catherine, M.A., Rhetoric and Writing Studies
Holslin, Jill M., Ph.D., English
Ingram, III, James W., M.A., Political Science
Jacobo, Rodolfo, M.A., Chicana and Chicano Studies
Jaffe, Maggie S., M.A., M.F.A., English
Justice, Paul, M.A., Linguistics
Kehrenberg, Graziella Spinelli, D.L., Italian
Kelliher, Joseph P., M.A., Spanish
Kelly, Mary L., Ph.D., Religious Studies; Women's Studies
Kenway, Christopher, Ph.D., History
Kilcrease, Melody L., M.A., Rhetoric and Writing Studies
Kline, Karl, M.F.A., Rhetoric and Writing Studies
Kosonoy, Beatriz, M.A., Spanish
Krupa-Kwiatkowski, Magda, Ph.D., Linguistics
Kuratani, Asuka, M.A., Japanese
Leak, Jacqueline, Ph.D., Women's Studies
Lhoest, Laurence, M.A., French
Lide, Thomas A., M.A., History
Llora, Miguel, M.A., Asia Pacific Studies
Locklear, Linda R., M.A., M.S., American Indian Studies
Luvaas, William H., M.F.A., English
Macias, Georgina, M.A., Spanish
Mack, James B., Ph.D., Rhetoric and Writing Studies
Mackey, Linda C., J.D., Women's Studies
Maggio, Virginia M., M.A., Rhetoric and Writing Studies
Mahdavi-Izadi, Farid, Ph.D., History
Manley, Peter, M.F.A., Rhetoric and Writing Studies
Martin, Paul G., M.A., Arts and Letters, General
Martin, Stephen-Paul H., Ph.D., English
Martinez, Miguel M., M.A., Spanish
McKanna, Jr., Clare V., Ph.D., History
McNulty, Mark A., M.A., Economics
Meltzer, Scott A., Ph.D., Religious Studies
Mendoza, J. Eduardo, Ph.D., Economics
Mendoza, José L., M.A., Spanish
Mercurio, John, M.A., Political Science
Merriam, Steve, Ph.D., Rhetoric and Writing Studies
Merritt, Anthony W., M.A., Africana Studies
Miller, Joan T., M.A., Anthropology

Minard, Antone, Ph.D., English
Miquel, Florence, M.A., French
Moore, Emily C., Ph.D., Sociology
Moore, Jeffrey S., M.Div., Religious Studies
Moorin, Albert, Ph.D., Rhetoric and Writing Studies
Mueller, Howard R., Ph.D., Religious Studies
Murillo, Hugo, Ph.D., Arts and Letters, General
Nebel, Grant, Ph.D., History
Nericcio, Rosalinda F., M.A., Spanish
Nobiletti, Frank, Ph.D., History
Oh-Surh, Helen R., M.A., Sociology
Osborn, Alan R., Ph.D., Geography
Owens, Cara R., M.A., Rhetoric and Writing Studies
Penafuerte, Araceli S., Ph.D., Philosophy
Pinckaers, Jeroen, M.A., Arts and Letters, General
Plemmons, Dena K., Ph.D., Arts and Letters, General
Potts, Stephen W., Ph.D., English
Putko, Carole A., Ph.D., History
Putris, Baida, M.A., Arabic
Quan, Nghiep C., M.A., Rhetoric and Writing Studies
Ransom, Holly E., C.Phil., French
Reddick, Bonnie, M.A., Africana Studies
Regan, Maria Dolores, M.B.A., Spanish
Renner, Lynette E., M.A., Rhetoric and Writing Studies
Reyes, Herminia V., M.A., Philosophy
Richardson, Diana G., M.A., Geography
Richardson, Mary, M.A., Linguistics
Richey, Carolyn L., M.A., English
Rissolo, Dominique, Ph.D., Anthropology
Robbins, Brett, Ph.D., Classics
Rockland, Steven G., M.A., M.S., Economics
Rodriguez, Barbara, Ph.D., Spanish
Roggemann, Sandra, M.A., Arts and Letters, General Rohrbaugh, Karen, M.S., Arts and Letters, General
Roy, Carolyn S., C.Phil., History
Ruggeri, Rosamarie, M.A., European Studies
Russ, John, M.B.A., Economics
Sadegholvad, Ellie, M.A., German; Persian
Salgado, E. Beatriz, M.A., Spanish
San Juan, Joel H., M.A., Sociology
Schlereth, Stephen P., Ph.D., Sociology
Schlesinger, Steven A., M.A., Philosophy
Semm, Paul T., M.A., Sociology
Shabatay, Yehuda, D.M.L., Religious Studies
Shaver, Barbara M., Ph.D., Women's Studies
Shembel, Daria, M.A., Russian
Sherman, Beth, M.A., Rhetoric and Writing Studies
Shumate, Kathleen R., M.F.A., English
Shuster, Alana, M.A., Hebrew
Sigmon, Celia, M.F.A., Rhetoric and Writing Studies
Smith, Lawrence, M.A., Economics
Speckmann, Nancy, M.A., Political Science
Stoddard, Michael Mathis, Ph.D., Political Science
Sullivan, Julie A., M.A., Political Science
Swayd, Samy S., Ph.D., Religious Studies
Sylvers, Josephine, M.A., Italian
Taylor, Seth, M.A., Rhetoric and Writing Studies
Thomas, Jesse J., Ph.D., Religious Studies
Thompson, Mary J., M.A., Rhetoric and Writing Studies

Thorngren, Jane R., Ph.D., Geography
Tipton, Jr., Norman E., J.D., Sociology
Towner, James, M.A., Rhetoric and Writing Studies
Trujillo, Angelina, Arts and Letters, General
Velasco, Alfredo F., Ph.D., Chicana and Chicano Studies
Vencil, Jon, M.S., Economics
Vetter, Molly E., M.Div., Religious Studies
Voytilla, Stuart, B.A., English
Wagner, Allan, D.B.A., Economics
Weeks, William E., Ph.D., History
Werner, Roland, Ph.D., Sociology
Whitaker, Jr., Delroi, M.A., Religious Studies
White, Margaret G., Ph.D., History
Wildes, Fred T., Ph.D., Geography
Williams, Julie, M.A., Rhetoric and Writing Studies
Wilson, Erwin, M.A., French
Wing, Susan, Ph.D., English
Wittenborn, Allen, Ph.D., Asia Pacific Studies; History
Wong, Amy C., M.A., Sociology
Yamaga, Hideko, M.A., Japanese
Yang, Yi (Edward), Ph.D., Political Science
Ysursa, John M., Ph.D., History
Zakaria, Ghassan, B.A., Arabic
Zollman, Joellyn, Ph.D., History

## BUSINESS ADMINISTRATION

Cooper, John, M.S., Accountancy
Cunningham, Michael R., M.A., Management
Dalbey, Richard O., Ph.D., Information and Decision Systems
Danns, George K., Ph.D., Management
English, Richard J., M.S., Marketing
Feltman, Richard I., Ph.D., Management
Goldman, Mark H., B.S., Finance
Graf, Paul, J.D., Finance
Harrington, Don L., J.D., Finance
Houskeeper, Robert V., M.S., Accountancy
Jaques, Kathryn M., B.A., Accountancy
Kennedy, Martha, M.A., Information and Decision Systems
Lao, Jr., Felix M., Ph.D., Marketing
Ledwith, James W., M.B.A., Accountancy
Lund, Max R., Ph.D., Information and Decision Systems
Lycan, Ron, J.D., Information and Decision Systems
Monahan, Jean C., J.D., Finance
Nicholson, Mark E., Psy.D., Management
Nielander, Stephen B., M.B.A., Finance
Pawar, Anil, Ph.D., Finance
Robbins, Blue, Ed.D., Management
Ryan, Frank, M.S., Finance
Sannwald, William W., M.A., Management; Marketing
Seiver, Daniel A., Ph.D., Finance
Senturia, Neil, M.A., Management
Shaul, Kelly, J.D., Information and Decision Systems
Wasson, Dick, M.B.A., Accountancy

## EDUCATION

Aceves, Edward, Ph.D., Policy Studies in Language and Cross-Cultural Education
Aganza, Joaquin, M.S., Counseling and School Psychology
Anastos, Ernest, M.A., Educational Leadership
Aste, Mirian K., M.A., Policy Studies in Language and Cross-Cultural Education; Teacher Education
Avant, Bobby J., M.S., Educational Leadership

Barnes, Stephen F., Ph.D., Administration, Rehabilitation and Postsecondary Education
Bjornson, Patricia J., M.A., Teacher Education
Bowen, Karen, M.A., Teacher Education
Braun-Harvey, Douglas, M.A., Counseling and School Psychology
Bronson, Michele, M.S., Counseling and School Psychology
Calderon, Martha, M.A., Special Education
Callies, Anne M., M.A., Special Education
Cameron, George, Ph.D., Educational Leadership
Casares, Sandra A., B.A., Policy Studies in Language and Cross-Cultural Education
Collins-Parks, Tamara, Ph.D., Policy Studies in Language and Cross-Cultural Education
Cornell, Marilyn, M.S., Counseling and School Psychology
Cunningham, Rodger, M.S., Teacher Education
Curiel, Marco A., M.A., Policy Studies in Language and Cross-Cultural Education
Davies, Aida D., M.A., Policy Studies in Language and Cross-Cultural Education
Debol, Martha, M.A., Special Education
Del Busto, Roberto, M.A., Educational Technology
Dieckmann, James, M.L.S., Educational Technology
Enriquez, Manuel, M.P.A., Administration, Rehabilitation and Postsecondary Education
Escobedo, Francisco, M.A., Educational Leadership
Fitch, Suzanne, Ed.D., Special Education
Flood, Sharon R., Ed.D., Teacher Education
Fulcher, Joe, Ph.D., Special Education
Gray, Susan P., M.A., Educational Leadership
Guillermo, Maribel, Ed.D., Administration, Rehabilitation and Postsecondary Education
Gunst, Rosemary, B.S., Teacher Education
Hardman, Linda, M.A., Policy Studies in Language and Cross-Cultural Education
Herman, Ernestine M., M.A., Policy Studies in Language and Cross-Cultural Education
Herrick, Ann B., M.Ed., Special Education
Hess, Shelly, M.A., Administration, Rehabilitation and Postsecondary Education
Hicks, Tom, Ph.D., Counseling and School Psychology
Holowach, Kathleen, M.A., Special Education; Teacher Education
Idano, Rose A., M.S., Administration, Rehabilitation and Postsecondary Education
James, Helen F., Ed.D., Teacher Education
Janney, Karen, M.A., Educational Leadership
Johnson, Deanne, M.S., Counseling and School Psychology
Jones, Edward C., M.S., Administration, Rehabilitation and Postsecondary Education
Jones, Jose L., M.A., Policy Studies in Language and Cross-Cultural Education
Kasendorf, Stacey, M.A., Special Education
Kellett, Susan, M.A., Special Education
Kemp, Donald J., Ph.D., Educational Leadership
Kopenski, Donna, Ph.D., Teacher Education
Lancaster, Nancy R., M.Ed., Teacher Education
Lei, Wei-lin, Ph.D., Policy Studies in Language and Cross-Cultural Education
Linman, Teresa Randel, M.A., Educational Technology
Littrell, Jarleen H., M.S., Teacher Education
Llera, Manuel, M.A., Policy Studies in Language and Cross-Cultural Education
Logsdon, John W., M.A., Teacher Education
Lujan, Nancy, M.A., Policy Studies in Language and Cross-Cultural Education

Marotta, Antonio, Ph.D., Counseling and School Psychology
Marshall, James M., Ph.D., Educational Technology
Martin, Melinda M., M.A., Teacher Education
McClure, Melinda K., M.A., Special Education
McLean, Deborah, M.A., Special Education
McMillan, Kris W., M.A., Teacher Education
Mendoza, Joseph, B.A., Counseling and School Psychology
Merlos, Ramon L., Ph.D., Policy Studies in Language and Cross-Cultural Education
Middleton, Loretta, M.A., Counseling and School Psychology
Montierth, Jacquelyn, M.A., Educational Technology
Mora, Jorge, M.A., Educational Technology
Morales Hoffman, Lydia E., M.A., Policy Studies in Language and Cross-Cultural Education
Nicodemus, Charlotte A., M.S., Administration, Rehabilitation and Postsecondary Education
Oram, Christopher D., Ed.D., Educational Leadership
Pastor, Amy, M.A., Policy Studies in Language and Cross-Cultural Education
Perlin, Robyn, M.A., Educational Leadership
Porras, Jesus, M.Ed., Special Education
Pringle, Tawnya, M.S., Counseling and School Psychology
Prodor, Catherine, M.A., Special Education
Pulido, James M., Ph.D., Special Education
Quintana, Carmen E., Ph.D., Policy Studies in Language and Cross-Cultural Education
Ramirez, Celia A., Ph.D., Educational Leadership; Policy Studies in Language and Cross-Cultural Education
Rider, Diane K., M.A., Policy Studies in Language and Cross-Cultural Education
Robershaw, Phyllis L., M.A., Teacher Education
Robinson, Marilyn A., M.A., Counseling and School Psychology
Ryan, Gregory V., M.A., Educational Leadership
Samson, Gloria P., M.A., Policy Studies in Language and Cross-Cultural Education
Sandoval, Sam, B.S., Teacher Education
Sanz, Ernesto, M.A., Policy Studies in Language and Cross-Cultural Education
Schell, Emily, M.A., Teacher Education; Education, General
Schroeder, Frederic, Ph.D., Administration, Rehabilitation and Postsecondary Education
Scorgie, Kathryn I., Ph.D., Special Education
Serban, Deborah, M.S., Administration, Rehabilitation and Postsecondary Education
Sharifzadeh, Virginia S., Ph.D., Policy Studies in Language and Cross-Cultural Education
Siegfried, Thomas L., M.S., Administration, Rehabilitation and Postsecondary Education
Sinclair, Stacey, Ph.D., Counseling and School Psychology
Smith, Brian, M.A., Educational Leadership
Smith, Craig R., Ph.D., Counseling and School Psychology
Smith, Elinor R., M.A., Special Education
Sparaco, Lisa M., Ph.D., Policy Studies in Language and Cross-Cultural Education
Stengel, Mark L., M.Ed., Special Education
Taylor, Margo, Ph.D., Policy Studies in Language and Cross-Cultural Education
Taylor, Mary M., M.Ed., Special Education
Treger, Rochelle D., Ph.D., Teacher Education
Tucker, Mark, M.S., Administration, Rehabilitation and Postsecondary Education
Turner, Thomas, M.S., Administration, Rehabilitation and Postsecondary Education

Valdivia, Rebeca, Ph.D., Special Education
Van Dyke, Janice, Ph.D., Teacher Education
Warne, Jim E., M.S., Administration, Rehabilitation and Postsecondary Education
Weiss, Roberto, M.A., Counseling and School Psychology
Whiteside, Hilary, M.A., Special Education
Wiedre, Howard M., Ph.D., Special Education
Wong-Kerberg, Linda, M.S., Counseling and School Psychology
Wulftange, Margarita, M.A., Policy Studies in Language and Cross-Cultural Education

## ENGINEERING

Allos, Haytham, M.B.A., Electrical and Computer Engineering
Badkoobehi, Hassan, Ph.D., Civil and Environmental Engineering
Bakhru, Keshoolal, Ph.D., Electrical and Computer Engineering
Butler, Geoffrey S., M.S., Aerospace Engineering and Engineering Mechanics
Cawley, Nancy, Ph.D., Aerospace Engineering and Engineering Mechanics
Daher, Wadih, M.S., Civil and Environmental Engineering
de Ruyter, Anthony J., M.A., Mechanical Engineering
Dhingra, Kailash C., Ph.D., Electrical and Computer Engineering
Dowell, Robert, Ph.D., Civil and Environmental Engineering
El-Hage, Maroun, M.S., Civil and Environmental Engineering
Farahani, Alireza M., Ph.D., Electrical and Computer Engineering
Garcia, Adrian, B.S.M.E., Mechanical Engineering
Gastelum, Greg, B.S., Civil and Environmental Engineering
Guven, Engin, Ph.D., Civil and Environmental Engineering
Harrington, Steven, Ph.D., Aerospace Engineering and Engineering Mechanics
Hull, Joseph, B.S., Civil and Environmental Engineering
Johnston, Thomas H., M.A., Mechanical Engineering
Kennedy, John, M.S., Electrical and Computer Engineering
Kim, Kyehee, Ph.D., Civil and Environmental Engineering
Lang, Warren R., M.S., Aerospace Engineering and Engineering Mechanics
Lockwood, Paul, M.S.E.E., Electrical and Computer Engineering
Lovegren, Jon, M.S., Electrical and Computer Engineering
Moons-Valdovinos, Melissa, M.S., Civil and Environmental Engineering
Phillips, David B., Ph.D., Electrical and Computer Engineering
Sarkar, Mahasweta, M.S., Electrical and Computer Engineering
Scott, Stephen R., M.S.E.E., Electrical and Computer Engineering
Tedesco, Carl, M.S., Aerospace Engineering and Engineering Mechanics
Urquhart, Bruce C., B.A., Civil and Environmental Engineering
Williams, Wayne T., Ph.D., Civil and Environmental Engineering

## HEALTH AND HUMAN SERVICES

Anguera, Joaquin, Ph.D., Gerontology
Bass, Susan, M.S.N., Nursing
Beam, Barbara, M.S.N., Nursing
Bertino, Teresa R., M.S., Nursing
Bidwell, Janice D., M.N., Nursing
Blackford, Judy K., M.S.N., Nursing
Boothroyd, Arthur, Ph.D., Speech, Language, and Hearing Sciences
Branch, Carol A., M.A., Speech, Language, and Hearing Sciences
Bray, Robert L., Ph.D., Social Work
Bruner, Joan S., M.S.W., Social Work
Burns, Della, M.N., Nursing
Carlson, Beverly M., M.S.N., Nursing
Casey, Carolynne Cay, Ph.D., Nursing
Chase, Renata S., M.S.W., Social Work
Clark, Gail E., Ph.D., Nursing
Coffin-Romig, Nancy, D.N.Sc., Nursing
Conway, Terry L., Ph.D., Public Health
De Silva, Sriyani R., M.S.N., Nursing
Dixon, Joyce, M.S.N., Nursing
Dodd-Butera, Teresa, M.S., Public Health
Dorricott, Janette, M.A., Speech, Language, and Hearing Sciences
Dublin, Penny, M.S.Ed., M.S.W., Social Work
Dunagan, Ilene, M.S.N., Nursing
Durham, Steven W., M.P.H., Public Health
Dye, Judy, M.S.N., Nursing
Eisenberg, Michelle, M.P.H., Public Health
Engelberg, Moshe, Ph.D., Public Health
Esernia, Joyce S., M.S.N., Nursing
Farnaes, Erin M., M.A., Speech, Language, and Hearing Sciences
Faron, Susan, M.S., Nursing
Ferran, Karen L., Ph.D., Public Health
Fischer, Marlowe K., M.A., Speech, Language, and Hearing Sciences
Fong, Terri A., M.S.W., Social Work
Gershwin, Denise, M.S., Nursing
Gilbert, Kay R., Ph.D., Nursing
Glatte, Linda J., M.D., Public Health
Golden, Lauren J., M.S.W., Social Work
Gonzales, Rebecca R., M.S., Speech, Language, and Hearing Sciences
Graf, Gerald, Ph.D., Nursing
Green, Gina, Ph.D., Public Health
Gresham, Louise S., Ph.D., Public Health
Hardy, Joanne, M.S.N., Nursing
Herold, Geri R., M.S.N., Nursing
Johnson, Susan, M.S.N., Nursing
Jurf, Julie B., M.S.N., Nursing
Kassem, Nada O., Dr.P.H., Public Health
Katzman, Jodi S., M.S.N., Nursing
Keith-Leach, Patricia, M.S., Nursing
Kohlbry, Pamela, M.S.N., Nursing
Kohler, Denise, M.S.N., Nursing
Kraus, David V., J.D., Public Health
Kreisworth, Virginia S., Ph.D., Public Health
Lafleur, Mona, M.S.N., Nursing
Ledwith, James W., M.B.A., Public Health
Liang, Bryan A., M.D., Public Health
Lindsay, Suzanne P., Ph.D., Public Health
Luthin, Patricia L., M.S.N., Nursing
Macchione, Nicola N., M.P.H., Public Health
Martin, Ann, M.S.N., Nursing

McEwan, Leslie, M.S.N., Nursing
McRae, Paul A., M.A., Speech, Language, and Hearing Sciences
Migala, Henri F., M.P.H., Public Health
Miller, Marcia A., M.S., Nursing
Miller, Mary Ellin, M.S.N., Nursing
Milstein, Marjorie F., M.S.W., Social Work
Mulvihill, Mary M., Ph.D., Public Health
Ngo-Nguyen, Phuong-Lien, M.S.N., Nursing
Nurmi, Elizabeth, M.S., Nursing
Osuyos, Roberta A., M.S.W., Social Work
Ottem, Regina M., M.S.N., Nursing
Peck, Marjorie, Ph.D., Nursing
Preston, Patricia T., M.S.N., Nursing
Ramsay, Jennifer W., M.A., Speech, Language, and Hearing Sciences
Rapps, Jane A., D.N.Sc., Nursing
Reyes, Maria L.F., M.D., Public Health
Reyno, JoAnne, M.S.N., Nursing
Rockland, Steven, M.A., Public Health
Rodriguez-Lainz, Alfonso, Ph.D., Public Health
Ross, Karen L., B.A., Gerontology
Roth-Abramson, Carole R., Ph.D., Speech, Language, and Hearing Sciences
Rowe, Linda J., Ph.D., Speech, Language, and Hearing Sciences
Samad, Ruth, Ph.D., Health and Human Services, General; Nursing
Santarsiero, Catherine H., M.S.N., Nursing
Schmidt, Terry, D.H.A., Public Health
Schmitz, Linda, M.A., Speech, Language, and Hearing Sciences
Schneider-Biehl, Teresa, M.N., Nursing
Schultz, Mary Ann, Ph.D., Nursing
Segars, Lance B., Ph.D., Social Work
Sieberer-Thompson, Karen, M.S.N., Nursing
Stichler, Jaynelle, D.N.Sc., Nursing
Stika, Carren J., Ph.D., Speech, Language, and Hearing Sciences
Struxness, Kevin R., M.A., Speech, Language, and Hearing Sciences
Thompson, Denise, M.S.N., Nursing
Valle, Juan Ramon, Ph.D., Gerontology
Vintinner, Ishaa, M.S., Speech, Language, and Hearing Sciences
Waalen, Jill M., M.D., Public Health
Walsh, Cynthia, M.S.N., Nursing
Wester, Derin C., Ph.D., Speech, Language, and Hearing Sciences
Wolf, Janet C., M.P.H., Public Health
Yaghmaee, Saman, M.A., Gerontology
Yamada, Ann Marie, Ph.D., Health and Human Services, General
Zians, James K., Ph.D., Public Health

## PROFESSIONAL STUDIES AND FINE ARTS

Adame, Angel, M.F.A., Art, Design, and Art History Aguinaldo, Arnel, M.A., Exercise and Nutritional Sciences
Apostolos, Robert J., M.S., Public Administration
Arauz, Carlos G., M.S., Public Administration
Armstead, Rulette V., M.S., Public Administration
Barba, Douglas A., Ph.D., Exercise and Nutritional Sciences
Barker, Valerie E., Ph.D., Communication
Basilio, Edwin, Ed.D., Music

Beck, Andrea P., M.S., Recreation, Parks and Tourism Behana, Elinor E., M.S., Child and Family Development Bendeler, Guusje, B.F.A., Art, Design, and Art History Benedetti, Fred, M.M., Music
Benzel, Gary, B.F.A., Art, Design, and Art History Betschart, Nathan, M.F.A., Art, Design, and Art History
Bevins, Larry, B.F.A., Art, Design, and Art History
Birman, Lisa B., M.A., Art, Design, and Art History
Bosshart, Philipp, M.Arch., Art, Design, and Art History
Bowman, Blaine K., J.D., Public Administration
Bunch, David R., M.A., Communication
Bunting-McNamara, Lucinda B., M.A., Theatre, Television, and Film
Burgess, Michele M., M.F.A., Art, Design, and Art History
Burton, Debra, M.A., Music
Caesar, Robert T., M.A., Recreation, Parks and Tourism
Carlson, Craig J., M.A., Art, Design, and Art History
Casenza, Stephanie L., M.A., Communication
Choi, Min K., B.A., Art, Design, and Art History
Cleary, John J., J.D., Public Administration
Co, Raymond F., Ph.D., Communication
Comana, Fabio, M.A., Exercise and Nutritional Sciences
Copp, Linda, M.S., Exercise and Nutritional Sciences
Copper, Robert, M.S., Public Administration
Corr, Michael J., B.A., Recreation, Parks and Tourism
Curtis, Christine E., B.A., Public Administration
Cuzick, David, B.A., Art, Design, and Art History
Darroch, James, M.Arch., Art, Design, and Art History
Deltoro, Gilbert, M.A., Communication
Drummond, Lisa, M.F.A., Theatre, Television, and Film
Dunn, Jeanne, M.A., Art, Design, and Art History
Ekard, Walter, F., J.D., Public Administration
Erb, Jr., John A., B.A., Music
Evans-O'Connor, Kellie E., M.A., Music
Evert, Sharla L., J.D., Public Administration
Fallon, William E., M.A., Communication
Feldman, David A., M.S., Communication
Fierro, Gilbert, B.A., Public Administration
Flood, John C., M.A., Music
Fobes, David A., M.F.A., Art, Design, and Art History
Fobian, Don, J.D., Public Administration
Frosio, Patricia A., M.P.A., Public Administration
Fuelle, Randall S., B.S., Theatre, Television, and Film
Fyock, Louise E., M.P.A., Public Administration
Gabay, Janis S., M.A., Recreation, Parks and Tourism
Gardner, Pam W., M.S., Child and Family Development
Garrity, Betty A., M.P.H., Exercise and Nutritional Sciences
Genna, Raimondo, M.A., Theatre, Television, and Film
Gerhardt, Kimberly J., M.A., Communication
Gillis, Ronald, M.M., Music
Gittings, Richard W., M.P.A., Public Administration
Goff, Tina, M.F.A., Theatre, Television, and Film
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[^0]:    * Advisers in prelaw are not available during the summer months.

[^1]:    * Standards and authorizations are being reviewed and revised by the California Commission on Teacher Credentialing.

[^2]:    * Includes a $\$ 16.00$ increase in Student Union Fee approved by the president in 2004.

[^3]:    * 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.

[^4]:    * Credit will not be granted for this course if the student has taken an equivalent post-Civil War American history course or United States history AP credit.
    ** Credit will not be granted for this course if the student has taken an equivalent American government course or Government/Politics: United States AP credit.
    + Credit will not be granted if IB History of the Americas examination is passed.

[^5]:    * A matriculated student is a student who has, through normal procedures, been formally admitted to and enrolled at SDSU to pursue a degree.
    ** Upper division courses in the major and minor must be taken for a letter grade unless they are offered only credit/no credit.

[^6]:    + Only one of these three courses may be taken for General Education credit.

[^7]:    * Cultural diversity course.
    \# Only one of these two courses may be taken for General Education credit.

[^8]:    Cultural diversity course.
    @ English 533 may not be used in place of English 302 for General Education credit.
    $\wedge$ Taught in English.
    $\dagger$ Either Asian Studies 460 (IV.B.) or History 422 (IV.C.) may be taken for General Education credit.

[^9]:    * Cultural diversity course.
    $\wedge$ Taught in English.

[^10]:    * See following page for NUMERICAL LISTING OF MAJOR CODES and CREDENTIAL CODES.

[^11]:    * A master plan must be filed during first semester of junior year

[^12]:    * Additional prerequisites may be required.

[^13]:    * Additional prerequisites in mathematics and physics required for these courses.

[^14]:    *If a lower division American Institution course is taken, you must substitute a third GE Explorations course.

[^15]:    * A master plan must be filed during first semester of junior year.
    + Check with department for approved courses.

[^16]:    * Additional prerequisites required for this certificate.

[^17]:    * A master plan must be filed during first semester of junior year.

[^18]:    * Additional prerequisites required.
    + Prerequisites waived.

[^19]:    * One of the upper division humanities courses must be from the same department as one of the courses completed in Foundations Humanities. The second must be from a department not selected in Foundations Humanities.

[^20]:    * Environmental Science 100 and Geography 103 may be substituted for Geography 101 prerequisite.

[^21]:    * Prerequisite waived for this course.

[^22]:    * The ELM requirement is satisfied by this course only if the student has already attempted and failed the ELM.

[^23]:    * Geography 595 may be used to satisfy three units in this group where appropriate and approved by the department.

[^24]:    * Additional prerequisites may be required for courses in the minor.

[^25]:    * Indicates course with prerequisites not included in requirements listed above.
    + Acceptable when of relevant content.

[^26]:    + Additional prerequisites may be required.

[^27]:    ${ }^{1}$ Additional prerequisite: Art 259.
    ${ }^{2}$ Additional prerequisites: Art 258, 259.
    ${ }^{3}$ Additional prerequisite: Mathematics 141 or qualification on the Mathematics Departmental Precalculus Examination.

[^28]:    * Additional prerequisites waived for these courses.
    ${ }^{\wedge}$ Integrated Marketing Communications students who have completed Marketing 470 may add this course on a space-available basis during the add period.

[^29]:    * A master plan must be filed during second semester of freshman year.
    \# Approved as part of the student's master plan.
    + These courses may also be taken during the academic year.

[^30]:    * Prerequisites waived.

[^31]:    * NURS 610, Pathophysiology of Adults and Elderly, and a NURS 499 clinical experience may be substituted for NURS 452 with consent of the instructor.

[^32]:    * Spanish 381 replaces 301 and 302 for Spanish speakers.
    + Three electives must be taken if Spanish 381 was taken in place of Spanish 301 and 302.

[^33]:    * Spanish 381 replaces 301 and 302 for Spanish speakers.
    + Three electives must be taken if Spanish 381 was taken in place of Spanish 301 and 302.

[^34]:    * Specified sections.

[^35]:    * Credit may not be earned at SDSU for courses which duplicate credit already allowed for examinations as listed under SDSU course equivalents

[^36]:    * Student fee support represents fee revenue deposited in the State Treasury/ state higher education fund. The average CSU 2005/06 academic year, resident, undergraduate student fees required to apply to, enroll in, or attend the university is $\$ 3,164$. However, the costs paid by individual students will vary depending on campus, program, and whether a student is part-time, full-time, resident, or nonresident.

