## Table of Contents

Welcome to San Diego State University ..... ii
Annual Calendar ..... 3
Academic Calendar ..... 4
Administration and Organization ..... 6
Academic Advising ..... 10
Student Services ..... 14
Financial Aid and Scholarships ..... 20
Colleges ..... 25
Imperial Valley Campus ..... 47
Division of Undergraduate Studies ..... 52
Graduate Division ..... 54
Nondegree Curricula ..... 56
Continuing Education ..... 59
Admission and Registration ..... 62
Schedule of Fees ..... 69
Graduation Requirements ..... 74
Summary of Curricula ..... 86
Major and Credential Codes ..... 89
Courses and Curricula ..... 92
Special Programs and Services ..... 418
University Policies ..... 428
General Information ..... 442
The California State University ..... 446
Addenda
Faculty and Administration. ..... 450
Index ..... 486
SDSU Campus Map ..... 492

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 2004 |  |  |
| :---: | :---: | :---: |
| JANUARY | FEBRUARY | MARCH |
| M T W T | 5 m T W T | 5 m T W |
|   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 | 1 2 3 4 5 6 7 <br> 8 9 10 11 12 13 14 <br> 15 16 17 18 2920 21  <br> 22 23 24 25 26 27 28 <br> 29       | 1 2 3 4 5 6 <br> 7 8 9 1011 12 13 <br> 14151617181920      <br> 21 22232425 26 27   <br> 28 293031     |
| 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 31      |  1 2 3 4 5 <br> 6 7 8 9 1011 12 <br> 13 141516171819     <br> 202122 232425 26    <br> 27282930      |
| 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     |  |
| OCTOBER | NOVEMBER | DECEMBER |
| $\begin{array}{\|llllllll} \hline & & & & 1 & 2 \\ 3 & 4 & 5 & 6 & 7 & 8 & 9 \\ 10 & 11 & 12 & 13 & 14 & 15 & 16 \\ 17 & 18 & 19 & 20 & 21 & 22 & 23 \\ 24 & 2 & 26 & 27 & 28 & 29 & 30 \\ 31 & & & & & & \end{array}$ | 1 2 3 4 5 6  <br> 7 8 9 10 11 12 13 <br> 141516 17 18 19 20   <br> 21 22 23 2425 26 27  <br> 28 29 30     |  |

## Academic Calendar

SUMMER TERM 2003
May 22 First day of summer term.
May 26 Holiday-Memorial Day.
Faculty/staff holiday. Campus closed.
May 27-August 2213 weeks with variable length sessions.
May 27 First day of classes.
May 27 First day of classes for first six-week session.*
July 4 Holiday-Independence Day. Faculty/staff holiday. Campus closed.
August 22 Last day of classes.
August 26 Grades due from instructors (4:00 p.m. deadline) and last day of summer term.

## FALL SEMESTER 2003

August 27 First day of fall semester.
August 27-30 Faculty/Staff Advising.
August 28 Convocation.
August 29-30 Student Life Orientation.
August 29 Last day to officially withdraw for fall semester 2003 and receive a full refund
September 1 Holiday-Labor Day. Faculty/staff holiday. Campus closed.
September 2 First day of classes.
September 2-22 Late registration.
September 15 Last day for payment of fees for late registration.
September 22 Last day to add classes, change grading basis, or apply for course "forgiveness."
September 22 Last day to drop classes.
September 22 Last day to withdraw officially from the University for fall semester 2003.
September 22 Last day to file application for bachelor's degree for December 2003 graduation.
September 22 Last day to file petition for concurrent master's degree credit for fall semester 2003.
September 22 Last day to apply for December 2003 graduation with an advanced degree, Graduate Division.
September 29 Census.
October 1 Applications for admission or readmission to San Diego State University for the fall semester 2004 accepted. Applications are NOT accepted after November 30 (postmarked). Graduate applicants should consult the Bulletin of the Graduate Division for closing dates.
November 6 Last day to officially withdraw from all classes for fall 2003 and receive a prorated refund (withdrawal after September 22 requires special approval and a penalty fee is assessed).
November 27-29 Holiday-Thanksgiving recess. Faculty/staff holiday. Campus closed.
December 12 Last day of classes before final examinations.
December 13-20 Final examinations.
December 22 Winter recess begins.
December 22-26 Holiday-Winter recess. Faculty/staff holiday. Campus closed.
December 30 Grades due from instructors. (4:00 p.m. deadline.)
December 30 Last day to apply for a leave of absence for fall semester 2003.
December 30 Last day of fall semester.
January 1 Holiday-New Year's.
Faculty/staff holiday. Campus closed.

## SPRING SEMESTER 2004

January 8 First day of spring semester.
January 8-9 Faculty/Staff Advising.

January 9 Last day to officially withdraw for spring semester 2004 and receive a full refund.
January 12 First day of classes.
Jan. 12-Feb. 2 Late registration.
January 19 Holiday-Martin Luther King, Jr. Day. Faculty/staff holiday. Campus closed.
January 27 Last day for payment of fees for late registration.
February 2 Last day to add classes, change grading basis, or apply for course "forgiveness."
February 2 Last day to drop classes.
February 2 Last day to withdraw officially from the University for spring semester 2004.
February 2 Last day to file application for bachelor's degree for May and August 2004 graduation.
February 2 Applications for bachelor's degree for December 2004 graduation accepted.
February 2 Last day to file petition for concurrent master's degree credit for spring semester 2004.
February 2 Last day to apply for May 2004 graduation with an advanced degree, Graduate Division.
February 9 Census.
March 13 Last day of classes before spring recess.
March 15-19 Spring recess.
March 22 Classes resume.
March 26 Last day to officially withdraw from all classes for spring 2004 and receive a prorated refund (withdrawal after February 2 requires special approval and a penalty fee is assessed).
March 31 Holiday-Cesar Chavez Day. Faculty/staff holiday. Campus closed.
May 3 Last day of classes before final examinations.
May 4 Study and consultation day.
May 5 Study and consultation day until 4:00 p.m.
May 5 (after Final examinations.
4:00 p.m.)-13
May 14-16 Commencement days.
May 18 Grades due from instructors. (4:00 p.m. deadline.)
May 18 Last day to apply for a leave of absence for spring semester 2004.
May 18 Last day of spring semester.
July 1 Applications for bachelor's degree for May and August 2005 graduation accepted.

## SUMMER TERM 2004

May 20 First day of summer term.
May 20 Faculty/Staff Advising.
May 24-August 1813 weeks with variable length sessions.
May 24 First day of classes.
May 24 First day of classes for first six-week session.*
May 31 Holiday-Memorial Day. Faculty/staff holiday. Campus closed.
July 4-5 Holiday - Independence Day. Faculty/staff holiday. Campus closed.
August 18 Last day of classes.
August 25 Grades due from instructors (12:00 p.m. deadline) and last day of summer term.

* Final examinations for the six-week sessions in the summer take place during
the class period on the last day of classes for that session.
(Please Note: This is not to be construed as an employee work calendar and is subject to change.)


## Administration and Organization

## Administration and Organization

Principal Officers of Administration
President of the University Stephen L. Weber
ProvostNancy A. Marlin
Vice President for Business and Financial AffairsSally F. Roush
Vice President for Student Affairs James R. KitchenVice President for University
Advancement ..... Theresa M. Mendoza
Administration
Office of the President
Executive Assistant to the President Diane L. BordenDirector of Diversity and EquityCheryl Fisher
Office of the Provost
Associate Vice President for
Academic Affairs ..... Ethan A. Singer
Special Assistant Ernst C. Griffin
Associate Vice President for Faculty Affairs .... Bonnie Zimmerman
Associate Vice President for Research... Thomas R. Scott (Interim)
Dean of the Graduate Division Janis F. Andersen (Interim)
Assistant Vice President for Academic Services ... ..... Jane K. Smith
Assistant Vice President for
International Programs Alan R. Sweedler
Dean of the Library and
Information Access .. Connie Vinita Dowell
Executive Director of Enrollment Services. ..... Sandra Cook
Director of Admissions Beverly Arata (Interim)
Director of Student Recruitment andSchool Relations.Reginald S. Blaylock
Director of Advising and Evaluations Rita Gajol
Registrar Rita Gajoli (Interim)
Director of Analytical Studies andInstitutional ResearchSally Farris
Director of Instructional Technology Services ..David M. Sharpe
Principal Coordinator Distributed Learning ..... Treacy Lau
Chair of the Senate ..... Bonnie Zimmerman
Office of the Vice President for Business and Financial Affairs
Associate Vice President for
Business Enterprises

$\qquad$
Joseph Vasquez
Associate Vice President forFinancial ManagementKenneth B. Perry
Assistant Vice President Linda A. Stewart
Director of The Center for Human Resources ..... Sue Blair
Director of Facilities Planning and
Management W. Anthony Fulton
Director of Business
Information Management Ellene J. Gibbs
Director of Physical Plant 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 AffairsAdministrationCarl F. Emerich
Associate Vice President forEnrollment Support Services
$\qquad$William D. Boyd

Associate Vice President for Student Affairs and Dean of Students Lori White
Special Assistant to the Vice President for Student Affairs $\qquad$ .Eric Rivera
Assistant Dean of Students and Director of Student Life and Development...........Cynthia Avery Director of Career Services Judith G. Gumbiner
Director of Communication Services
Sharon A. Penny
Director of Compliance and Policy Analysis
Martin J. Block
Director of Counseling and PsychologicalServicesDouglas J. Van Sickle
Director of Disabled Student Services ..... Mary Shojai
Director of Educational Opportunity Programsand Ethnic AffairsDirector of Financial AidChrys Dutton
Director of Information Systems Management ..... Kevin Carter
Director of International Student Center Ron Moffatt
Director of Residential Education............. Susan Shuckett (Interim)
Director of Resource Management . ..... Linda Lewiston
Director of Scholarships ..... Kathleen H. Ross
Director of Student Health Services ..... Kevin M. Patrick, M.D.
Director of Student Rights
and Responsibilities Antionette Jones (Interim)
Director of Test Office. Mary K. Putlock (Interim)
Fraternity and Sorority Life, Coordinator .................. Douglas Case
Ombudsman, Program Coordinator ..... Suzanne A. Chappellet
Office of the Vice President for University Advancement
Associate Vice President for Marketingand Communications.
Associate Vice President for UniversityDevelopmentKim Hill
Executive Director of Alumni Association

$\qquad$
James S. Herrick
Chief Officer of Finance and Information Services .....  Allan R. Bailey
Director of Intercollegiate Athletics RickBay
President of Aztec Athletic Foundation ..... Craig McMahon
Colleges, Schools, Departments, and Programs
COLLEGE OF ARTS AND LETTERS .....
Paul J. Strand, Dean Associate Dean
Charles F. Hohm
Assistant Dean for Student Affairs. Leslie S. Johnson
Director of Development . Vincent M. Blocker
Departments ..... Chair or Director
Africana Studies ..... Shirley N. Weber
American Indian Studies Linda S. Parker
Anthropology ..... Larry L. Leach (Interim)
Asia Pacific Studies Michael A. Weiner
Classics and Humanities E. N. Genovese
Economics ..... Mark A. Thayer
English and Comparative Literature ..... Sherry B. Little
Geography Edward Aguado
History. Harry C. McDean
Linguistics and Oriental Languages Jeffrey P. Kaplan
Philosophy Steven L. Barbone
Political Science .Louis M. Terrell
Religious Studies ..... Linda D. Holler
Rhetoric and Writing Studies Glen McClish
Sociology Robert E. Emerick
Spanish and Portuguese Languages and Literatures Kathleen V. Kish
Women's Studies Susan E. Cayleff
Programs
Africa and Middle East Studies Charles H. Cutter
American Studies Sinda J. Gregory
Environment and Society Philip R. Pryde
International Business Steven J. Loughrin-Sacco
International Security and Conflict Resolution ... Jeffrey S. Mclllwain
Jewish Studies Lawrence Baron
Latin American Studies ..... James B. Gerber
M.A., Liberal Arts and Sciences Howard I. Kushner
MEXUS Teresa Cisneros Donahue
Social Science
Stephen A.Colston
Urban Studies Roger W. Caves
COLLEGE OF BUSINESS
ADMINISTRATION Gail K. Naughton, Dean
Associate Dean for
Academic Affairs Robert W. Wilbur
Associate Dean and Director ofGraduate Program ...................................... Kenneth E. Marino
Associate Dean for Community EconomicDevelopmentHarold K. Brown
Assistant Dean for Student Affairs and
Director of the
Business Advising Center

$\qquad$
Patricia N.L. Dintrone
Assistant Dean for Student Relations Jeffrey W. Glazer
Director of Communications

$\qquad$
Shelley Herron
Director of Executive ManagementPrograms.Candace M. Williams
Director of Resource Management. ............... ........... Debra Tomic
Director of Undergraduate Programs Kathleen A. Krentler
Departments and Schools Chair or Director
Accountancy Andrew H. Barnett
Finance Nikhil P. Varaiya
Information and Decision Systems John M. Penrose
Management David R. Hampton
Marketing George E. Belch
Programs
Hospitality and TourismManagement
$\qquad$Carl Winston
International Business Steven J. Loughrin-Sacco
MEXUS Teresa Cisneros Donahue
COLLEGE OF EDUCATION Lionel R. Meno, Dean
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
SDSU/CGU. Alberto M. OchoaSDSU/USDMarlowe J. Berg
Director of Credentials Office Helen Duffy
Director of Future Educators Center Evette Hornsby-MinorDirector of DevelopmentDepartments and Schools ...................................... Chair or Director
Administration, Rehabilitation andPostsecondary Education ........................... Fred R. McFarlane
Counseling and SchoolPsychologyCarol A. Robinson-ZañartuEducational Leadership ...........................................Larry E. Frase
Educational Technology Donn C. Ritchie
Policy Studies in Language and Cross-CulturalEducationAlberto M. Ochoa
Special Education ..... Patricia T. Cegelka
Teacher Education Rafaela M. Santa Cruz (Interim)
COLLEGE OF ENGINEERING David T. Hayhurst, Dean
Associate Dean. Gordon K. F. Lee
Assistant Dean for Student Affairs Bruce D. Westermo
Director of Development Pamela Becker
Director of Doctoral Programs. Gordon K. F. Lee
Departments and Schools Chair or Director
Aerospace Engineering and EngineeringMechanicsJoseph Katz
Civil and Environmental Engineering ............. Janusz C. Supernak
Electrical and Computer Engineering ..... R. Lal Tummala
Mechanical Engineering Joseph Katz (Interim)
COLLEGE OF HEALTH AND
HUMAN SERVICES

$\qquad$
Dolores A. Wozniak, DeanAssociate DeanOlita D. Harris
Assistant Dean for Student Affairs ..... Selma E. Reed
Director of Development ..... Thomas Sloan
Departments and Schools ..... Chair or Director
Graduate School of Public Health . ..... Kenneth J. Bart
Nursing Patricia R. Wahl
Social Work Anita S. Harbert
Speech, Language, and Hearing Sciences Marilyn Newhoff
Programs
Gerontology.
Community Health Education
COLLEGE OF PROFESSIONAL STUDIESAND FINE ARTSJoyce M. Gattas, Dean
Associate Dean Donald R. Martin
Assistant Dean for Student Affairs ..... Carole A. Robasciotti
Director of Development Michele Schlecht
Director of Resource Management Sue Kasuyama
Departments and Schools Chair or Director
Aerospace Studies. Richard A. Rankin
Art, Design and Art History. John S. Gordon
Child and Family Development Thomas W. Roberts
Communication William F. Eadie
Exercise and Nutritional Sciences ..... Kathryn J. LaMaster
Military Science ....................................... Lt. Col. David T. Guzman
Music and Dance Martin J. Chambers
Naval Science ..... Capt. Mike Simpson
Public Administration and Urban Studies . Louis M. Rea
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 Jeffrey S. Mclllwain
Urban Studies Roger W. Caves
COLLEGE OF SCIENCES Thomas R. Scott, Dean
Associate Dean forUndergraduate Studies................... Catherine J. Atkins-Kaplan
Associate Dean for Graduate Studies Philip J. Langlais
Assistant Dean for Student Affairs Estralita Martin
Director of Development Harry D. Steele
Departments Chair or Director
Astronomy Paul B. Etzel
Biology Christopher C. Glembotski
Chemistry Carl J. Carrano
Computer Science Leland L. Beck
Geological Sciences .Gary H. Girty
Mathematics and Statistics ..... David Lesley
Physics Patrick J. Papin
Psychology Claire Murphy
Programs
Computational Science José E. Castillo
Environmental Sciences Alan R. Sweedler
International Security and Conflict Resolution Jeffrey S. Mclllwain
Molecular Biology Greg L. Harris
Natural Science Phoebe E. Roeder
Oceanography
Regulatory AffairsA. Stephen Dahms
IMPERIAL VALLEY CAMPUS

$\qquad$
Khosrow Fatemi, Dean
Associate Dean for Academic Affairs Stephen A. McNett
Assistant Dean for Student Affairs Rosa Elena Moreno
Director of Financial and Business Services Irma Martinez
Director of Advancement John Renison
OFFICE OF GRADUATE AND RESEARCH AFFAIRS
Graduate Division
Dean of the Graduate Division....Janis F. Andersen, Dean (Interim)
$\qquad$ Carolyn L. Walker

## Research Division

Associate Vice President for Research... Thomas R. Scott (Interim) Assistant Vice President for Research and Technology.Camille Nebeker (Interim)

## OFFICE OF THE DEAN OF

UNDERGRADUATE STUDIES $\qquad$
$\qquad$ Geoffrey W. Chase, Dean Associate Dean ..................................................Patricia Patterson
Assistant Dean ............................................. Bonnie M. Anderson
Director of University Honors ProgramBonnie M. AndersonJung Choi
Director of Center for Teaching and Learning
$\qquad$Director of College Readiness ProgramsJosé Preciado
Programs
Faculty-Student Mentoring Program Randi E. McKenzie
Freshman Success Programs Melody L. Kilcrease
Interdisciplinary Studies inThree Departments ................................... Bonnie M. Anderson
Liberal Studies .Phoebe E. Roeder
OFFICE OF THE DEAN OF
$\qquad$William E. Byxbee, Dean
Associate Dean for Administration.

$\qquad$
.Joseph B. Shapiro
Assistant Dean for Special Sessions and ExtensionDirector of Special ProgramsJan Wahl
Director of Credit Community Education. Francesca Ringland
Executive Director of ProfessionalDevelopment. Tamara McLeod
Director of Public Programs ..... Judy Blum
Director of Non-Credit Community Education and Retired Adults ..... Leslie Koch
Executive Director of Marketing and Public Relations Dale Bonifield
Executive Director of American Language Institute ..... Clive Roberts
Executive Director of International Training Center Miguel A. Cardenas
Auxiliary Organizations
The Campanile Foundation

$\qquad$ Stephen L. WeberChief Executive OfficerTheresa M. Mendoza
Chief Financial Officer/Treasurer ..... Allan R. Bailey
San Diego State University Foundation
PresidentStephen L. Weber
Vice President Thomas R. Scott (Interim)
Chief Executive Officer .Frea E. Sladek
Aztec Shops, Ltd.
Chief Executive Officer Larry Marmon
The Associated Students of San Diego State University
President Priscilla Ocen
Executive Director Dan Cornthwaite

Academic Advising Student Services

Financial Aid and Scholarships

## Academic Advising

## Mission and Purpose

Research has indicated that a strong academic advising system is an essential ingredient of undergraduate student success in higher education.

A shared responsibility between adviser and student, academic advising serves to assist students in identifying and assessing academic alternatives and the directions in which they lead. Its purpose is to help students take ultimate responsibility for identifying and making decisions about life goals and making meaningful educational plans that are compatible with those goals. Through academic advising the University provides an environment that is welcoming and supportive.

## 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
- Plan your next semester's schedule
- Clear mathematics and writing competencies
- Remove probationary status to avoid disqualification
- File for graduation
- Investigate job market opportunities
- File for graduation
- Prepare to enter a professional school (medical, dental, legal, etc.)


## 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.

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 unofficial copy of your SDSU record by accessing the Web site at www.sdsu.edu/eservices. SDSU does not release copies of other schools' records. Evaluations, test scores, and other important academic information should also be kept in your 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.

## Where To Go For Academic Advising

For general undergraduate advising regarding graduation requirements, General Education, competency requirements, probation and disqualification, and university policies and procedures; if you are undecided about a major; 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.

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 Graduate Division, Centennial 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 Office, Education, Room 151, (619) 5945964.

For specialized advising such as preprofessional advising (premedical, prelaw, etc.), contact the adviser assigned to your preprofessional area. A more detailed listing follows.

Academic Orientation is conducted by the Student Life and Development office, Student Services, Room 1602, (619) 594-5521, for new students (freshmen and transfers) and provides important pre-registration group advising. New students will be sent information through the mail.

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 www.sdsu.edu/advising or via the printed Directory of Advising Services at SDSU available in the Academic Advising Center.

## Advising Centers

Academic Advising Center $\qquad$ (619) 594-6668

Student Services, Room 1551 $\qquad$ FAX (619) 594-1553 Email: advising@mail.sdsu.edu
Monday through Thursday, 9:00 a.m. - 6:00 p.m.; Friday, 10:00 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
(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 $\qquad$ (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
American Studies
Adams Humanities, Room 4214 ..... (619) 594-5443
AnthropologyStorm Hall, Room 143B(619) 594-5527
Asia Pacific Studies(619) 594-0931
Chicana and Chicano Studies
Adams Humanities, Room 3160 ..... (619) 594-6452
Classics and Humanities
Adams Humanities, Room 4231 ..... (619) 594-5186
EconomicsNasatir Hall, Room 304(619) 594-1675
English and Comparative Literature
Adams Humanities, Room 4158 ..... (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
Adams Humanities, Room 4210 ..... (619) 594-5262
International Business
Business Administration, Room 431 ..... (619) 594-3008
International Security and Conflict Resolution Professional Studies and Fine Arts, Room 111 ..... (619) 594-4099
Japanese Business Administration, Room 327 ..... (619) 594-5268
Jewish Studies (Minor)(619) 594-5338
Latin American Studies
Storm Hall, Room 146 ..... (619) 594-1103
Linguistics and Oriental Languages Business Administration, Room 327 ..... (619) 594-5268
Philosophy
Adams Humanities, Room 4142 ..... (619) 594-5263
Political Science(619) 594-6244
Religious StudiesAdams Humanities, Room 4231(619) 594-5185
Russian and Central European Studies Business Administration, Room 304 ..... (619) 594-5111
Social Science
Adams Humanities, Room 4192 ..... (619) 594-6344
SociologyNasatir Hall, Room 203(619) 594-5449
Spanish and Portuguese
Business Administration, Room 403 ..... (619) 594-6588
Urban Studies
Professional Studies and Fine Arts, Room 105 ..... (619) 594-6224
Women's Studies
Adams Humanities, Room 3138 ..... (619) 594-6524

## 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: rohan.sdsu.edu/~ugbus/

| Accountancy | International Business <br> (See College of Arts and Letters) |
| :--- | :--- |
| Finance | Management |
| Financial Services | Marketing |
| Hospitality and Tourism | Pre-Business |
| Management (See Professional | Real Estate |
| Studies and Fine Arts) |  |
| Information Systems |  |
| Graduate Business Advising Office .......................... (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 and Credential Programs)

Assistant DeanEducation, Room 154F(619) 594-1426
Program Information and Outreach Education, Room 107 ..... (619) 594-6320
Adaptive Physical Education
Exercise and Nutritional Sciences, Room 318 ..... (619) 594-4703
Administrative, Rehabilitation and Postsecondary Education Hardy Avenue, Room 240 ..... (619) 594-6115
Administrative Services
Postsecondary Educational Leadership
Counseling and School Psychology
North Education, Room 179 ..... (619) 594-6109
Pupil Personnel ServicesSchool CounselingSchool Psychology
Educational Technology
North Education, Room 280 ..... (619) 594-6718
Master's ProgramsEducation, Room 100K(619) 594-6544
Doctoral Programs
SDSU/CGU: Education, Room 100K ..... (619) 594-1120
SDSU/USD: Education, Room 120
SDSU/USD: Education, Room 120 ..... (619) 594-1378 ..... (619) 594-1378
Nursing (Health Services-School Nurse)
Hardy Tower, Room 58 (619) 594-5495/594-6384
Policy Studies in Language and Cross-Cultural EducationEducation, Room 152(619) 594-5155
Multiple and Single Subject B/CLAD EmphasisBCLAD Certificat
Language Development Specialist Certificate
Social Work
Hepner Hall, Room 119
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

Moderate/Severe Disabilities
Resource Specialist Certificate of Competence

## Certificate Programs

Bilingual (Spanish)
Early Childhood Special Education
Resource Specialist
Supported Employment and Transition Specialist
Teaching the Emotionally Disturbed/Behaviorally Disordered
Speech, Language, and Hearing Sciences
Communications Clinic, Room 121
(619) 594-6774

Clinical-Rehabilitative Services
Education Specialist for the Deaf and Hard of Hearing
Teacher Education
Education, Room 100
(619) 594-6131

Multiple Subject CLAD and Single Subject CLAD
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
Hepner Hall, Room 124G
(619) 594-6898

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
Communications Clinic, Room 118
(619) 594-6774

## COLLEGE OF PROFESSIONAL STUDIES AND FINE ARTS

Assistant Dean
Professional Studies and Fine Arts, Room 212 ............ (619) 594-5124
Aerospace Studies (Minor)
Exercise and Nutritional Sciences, Room 385 ............ (619) 594-5545
Art, Design and Art History Art, Room 505
(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 331 ............. (619) 594-5161
Hospitality and Tourism Management
Professional Studies and Fine Arts, Room 430 ............. (619) 594-4964

International Security and Conflict Resolution
Professional Studies and Fine Arts, Room 111
(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 130
(619) 594-3730

Public Administration and Urban Studies (Criminal Justice
Administration, 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 204
(619) 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 | Microbiology |
| :--- | :--- |
| Cellular and Molecular | Medical Technology and |
| Ecology | Public Health Microbiology |
| Evolution and Systematics | Zoology |
| Marine Biology |  |

Chemistry (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
Professional Studies and Fine Arts, Room 111
(619) 594-4099

Mathematics and Statistics
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 131
(619) 594-6240

Preprofessional Health Advising
Geology/Mathematics/Computer Science, Room 323 .. (619) 594-6638
Psychology Advising Center
Life Sciences, Room 116
(619) 594-5412

## DIVISION OF UNDERGRADUATE STUDIES

## Assistant Dean

Administration, Room 201
(619) 594-5841

Also advising in:
Honors Program
Interdisciplinary Studies in Three Departments Liberal Studies (Student Services 1575)
(619) 594-0597

## GRADUATE DIVISION

Associate Dean
Centennial 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, Latin American Studies,
Liberal Studies, Psychology
Americo Yacopi
(760) 768-5503

English, History, Spanish Aracely Bojorquez.
(760) 768-5506

Public Administration, Social Science Miguel Rahiotis.
(760) 768-5507

## Graduate

MA in Education
Educational Leadership
Dr. Frank A. Medeiros
(760) 768-5504

Curriculum and Instruction 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
Dr. Michael J. Sabath.
(760) 768-5535

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

The Class Schedule with instructions for registration for fall, spring, and summer is published prior to the opening of each semester or term and available at the SDSU Bookstore.

The catalog, bulletin, and class schedule are available on the SDSU Web site, www.sdsu.edu, as well as information on mail-orders, 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 support services and programs that advance student learning and development.

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 alliances that foster retention and loyalty beyond graduation.

The Division of Student Affairs consists of the following departments:

Career Services
Communications Services
Commuter and Non-Traditional Student Programs
Compliance and Policy Analysis
Counseling \& Psychological Services
Disabled Student Services
Educational Opportunity Programs/ Ethnic Affairs (EOP)
Financial Aid and Scholarships
Fraternity and Sorority Life
Health Services
Information Systems Management
International Student Center/Study Abroad
Ombudsman
Residential Education Office
Student Life and Development
Student Rights and Responsibilities
Test Office

## Campus Tours

Prospective Student Center
Telephone: (619) 594-6868
The SDSU Ambassadors conduct tours of the campus. 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.

## 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 non-profit sector. A specialized program, Workability IV, is also available for students with disabilities.

The Center for Community-Based Service Learning (CCBSL) offers programs and resources to SDSU students, faculty, staff, and community members interested in participating in community service and service-learning.

Placement files are maintained for students primarily in education, social service, nursing, and graduate schools.

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 \& Psychological Services

## Student Services, Room 2109 <br> Telephone: (619) 594-5220 <br> www.sdsu.edu/cps

Social science research confirms what you already know from your own experience. Your I.Q. and the facts you learn account for less than 25 percent of your ability to be successful and happy with your life. People who have Emotional Intelligence (a high EQ) understand and manage strong feelings, persist in the face of frustration and trauma, build strong relationships, listen well, and lead others. The higher your EQ, the more likely you are to be both happy and successful in your life.

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

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

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

Enrolled SDSU students who want help from the C\&PS staff in locating off-campus community services can call (619) 594-5220.

Counseling psychologists at C\&PS offer help in:
Learning to reduce stress. Stress can interfere with concentration, memory, and mental processing.
Dealing with relationship loss, feelings of helplessness or hopelessness, which may lead to a lack of motivation or prolonged depression.
Developing communication skills and problem solving techniques to improve important relationships.
Building self-esteem and improving coping skills.
Clarifying values and career decisions.

## Disabled Student Services (DSS)

## Student Services, Room 1661

Telephone: (619) 594-6473
TDD: (619) 594-2929
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 92A and 96 are designed to help students develop their writing skills and meet the lower division writing requirement. General Mathematics Studies 90A, 90B, and 91 are review classes designed to help students meet University mathematics competency requirements. 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 Programs/ Ethnic Affairs (EOP)

## Student Services, Room 2209 <br> Telephone: (619) 594-6298 <br> www.sdsu.edu/eop

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

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

To apply for the program, students must complete the CSU Application for Admission and check the appropriate box for EOP. EOP applications are available at: http://eop.sdsu.edu. Download and print the EOP application forms and mail to EOP.

EOP is a high demand program with a limited number of program admission spaces. Applicants who submit all required documents will be reviewed and if qualified, will be admitted on a first come first served basis.

For assistance in filling out the application forms, or for further information about the program, please contact the EOP office at (619) 594-6298.

## Fraternity and Sorority Life

## Student Services, Room 1602 <br> Telephone: (619) 594-2939 <br> www.sa.sdsu.edu/cfs

The Center for Fraternity and Sorority Life 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 15 general fraternities, nine general sororities, six culturally-based fraternities, and 11 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 Telephone: (619) 594-5281 <br> 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 primary care nurse practitioners; nursing, x-ray, and laboratory services; a pharmacy which dispenses prescriptions and over-thecounter items at cost; health-related counseling and campuswide health education programming offered by the Health Promotion Department.

## 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 either previous illness or immunization to Student Health Services. (School records may not be acceptable proof unless signed by a physician or a nurse.) 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 as proof of either previous illness or immunization to Student Health Services. (School records may not be acceptable proof unless signed by a physician or a nurse.) Students may also receive 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.

Immunization documentation should be mailed or brought to SDSU Student Health Services, Immunization Program, 5500 Campanile Drive, San Diego, CA 92182-4701.

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.

## Strongly Recommended Health Screening

Immunization from the following diseases may also protect students against potentially severe infections: tetanus, diphtheria, polio, mumps, meningitis, and hepatitis B. Like measles, these too can be particularly harmful in the college-age group. The chicken pox vaccine is available for students who have not had the disease. These immunizations are available at reduced cost at Student Health Services. Flu shots are available annually, as well.

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

## Appointments

Students without acute or urgent problems are encouraged to make an appointment. Those with problems requiring immediate medical attention should walk in. Student Health Services is open twelve months of the year. During the fall and spring semesters, the clinic is open from 8:00 a.m. to 4:30 p.m., Monday through Friday (call for extended hours of operation). During the summer, clinic hours vary. It is best to call for hours of service and to ask about the availability of services (619) 594-5281. 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. 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. 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

## 6050 Montezuma Road

 Telephone: (619) 594-5742
## 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 number of accommodations and special interest living areas. Currently, special interest living areas include extended quiet study, substance-free, freshman Living/Learning Center, International House, Housing Over the Break, and Aztec Engineering Residence. These areas may vary from year to year depending upon student interest. Six co-educational residence halls/complexes house about 3,000 students. Each hall includes sleeping accommodations, lounge areas, study rooms, a recreation room, and laundry facilities.

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 freshman Living/Learning Center complex of two, three-story, red-brick halls (Maya and Olmeca). On the west side is 11 -story Chapultepec Hall. Each red-brick hall accommodates approximately 210 students. High-rises house from 350 to 680 students each.

Cuicacalli Suites offers SDSU students a unique residence hall option complete with an in-house dining facility. Cuicacalli accommodates 694 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. Apartment-style living is also available for returning and transfer students. The 90-unit Villa Alvarado apartment complex accommodates 354 students in furnished two-bedroom units (four residents per apartment).

For the 2002-2003 academic year, the costs for room and board range from $\$ 6,485$ to $\$ 11,180$ depending on double or single occupancy and the mean plan selected. Fees for Villa Alvarado, which do not include board, were $\$ 4,809$ for the 2002-2003 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.

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.

During the summer term, rooms are available on a receipt-ofcheck date priority. Full payment must accompany the application. Students should contact the Office of Housing Administration in mid-March for information concerning summer term housing.

## 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 www.sdsu.edu/housing.

## International Student Center

## International Student Center <br> Telephone: (619) 594-1982 <br> www.sdsu.edu/isc

The International Student Center (ISC) advances San Diego State University as a global university by serving as a resource 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 homecountry 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 and Festival, 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 below) 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 coordinates 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 five years, the number of SDSU students studying abroad has increased more than 300 per cent (from 167 to over 700 students).

## 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, University of Western Sydney, Macquarie University, Queensland University of Technology, University of Queensland, Victoria University of Technology

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

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, 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

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

To qualify for admission to the International Programs, students must have upper division or graduate standing at a CSU campus by the time of departure. Students at the sophomore level may, however, participate in the intensive language acquisition programs in France, Germany, and Mexico. California Community Colleges transfer students are eligible to apply directly from their community 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 www.gateway.calstate.edu/csuienet/.

## Ombudsmen

## Student Services, Room 1226 <br> Telephone: (619) 594-6578

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

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

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

## Student Life and Development

## Student Services, Room 1602

## Telephone: (619) 594-5221

## www.sa.sdsu.edu/studentlife

The Office of Student Life and Development responds to the needs of students and their families. Questions are answered or referrals are made through this office. Beginning with New Student Orientation Programs, the office supports students throughout their years at SDSU in achieving academic goals and in enhancing the University experience. The staff provide the following for current students, prospective students, parents, and the community:
(1) Programs and services

New Student Orientation - assistance with course selection, General Education and competency requirements, and registration (for freshman and transfer students).
Student Life Orientation - introduction to University programs, services, traditions and history; opportunities for involvement on campus (for freshman and transfer students).
Annual Leadership Institute Conference - workshops and seminars presented to students and advisers from universities throughout the western United States.
Freshman Leadership Connection Program - leadership skills and campus involvement opportunities for freshmen.
Leadership and Personal Growth Workshops - the staff present sessions on a wide variety of topics as requested by student groups.
Leadership Certificate Program - support for non-freshman students in their leadership development.

Leadership Class - "Leadership in Educational Settings," a three-unit, upper-division class, offered through the College of Education (Counseling and School Psychology 310).

Quest for the Best Vice Presidential Awards - this student service award is presented annually to outstanding students and the faculty they nominate.
Ambassadors - SDSU's official student representatives and tour guides.
Student internships for class credit.
(2) Student activities

On-campus status for clubs and organizations.
Implementation of policies and procedures with regard to student activities.
Approval of all on-campus club activities, including fundraising events.
(3) Parent/family and community programs and development

Aztec Parents Association - membership, programming, services and events, regional meetings.
Fundraising and development to directly support student programs.
Parents Orientation Program.
Interaction with administrators.
Liaison officer in support of parent involvement with the University.

## Student Rights and Responsibilities

## Student Services, Room 1604

Telephone: (619) 594-3069

## 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 www.sa.sdsu.edu/srr/statement.

## Test Office

## Student Services, Room 2549

Telephone: (619) 594-5216
FAX: (619) 594-5036

## www.sa.sdsu.edu/testoffice

The Test 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 purpose of admission, class placement, competency for graduation, licenses, credentials, counseling, and career planning. Test scoring and analysis services are provided for classroom tests.

Test dates for San Diego State University competency and placement tests are listed in the 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 Test Office will provide students with test dates and registration procedures for major national examinations in the form of a bulletin of information or with the address of the testing service. Reservations for computer-based tests can be made at the Test Office (619-594-0968). Students who are interested in assessments for counseling or career planning must contact Counseling \& Psychological Services or Career Services. Special arrangements for disabled students are made through Disabled Student Services.

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

## 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 as well as some of the institutional 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.sa.sdsu.edu/fao.

## 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 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 2003-2004 Academic Year

|  | Living off <br> Campus | Living on <br> Campus | Commuting <br> from Home |
| ---: | ---: | ---: | ---: |
| Registration fees .................. | $\$ 2014$ | $\$ 2014$ | $\$ 2014$ |
| Books and supplies ............. | 1224 | 1224 | 1224 |
| Food and housing ................................. | 8385 | 8307 | 3075 |
| Transportation .................. | 936 | 731 | 753 |
| Miscellaneous/Personal ........ | $\underline{2237}$ | $\underline{2144}$ | $\underline{2306}$ |
| Total ................................ | $\$ 14,796$ | $\$ 14,420$ | $\$ 9,372$ |

The registration fee for a postbaccalaureate student is $\$ 2176$ for the academic year. In addition to the registration fee, nonresident (foreign and out-of-state) students pay tuition (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 is now using email 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/e-services, and select U-Mail 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 reward academic excellence and are not generally based on financial need. For financial aid not based on academic record, refer to the preceding information on financial aid. All students, regardless of nationality, citizenship, or residency status, are eligible, with the appropriate grade point average, to apply for scholarships.

## Scholarships and Fellowships Administered by Departments

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

## San Diego State University General and Individual Scholarships

## Scholarship Philosophy and Eligibility Requirements

A scholarship is a monetary award given to outstanding students to recognize them for their academic excellence, leadership, achievements and promise. They are provided by private donors, corporations, professional associations and alumni.

High school seniors and undergraduate or graduate students may apply for scholarships awarded by their major department.

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

Applications for the general SDSU scholarship program described above and individual scholarships are available on the SDSU Web site at www.sdsu.edu/financialaid.

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

The dollar amount per scholarship is subject to change based on registration costs and investments by The Campanile Foundation There is no limit to the number of scholarships for which a student may be considered. Note: Freshman Scholar Awards are only available to entering freshman who meet the University, merit-based eligibility requirements. Several awards are designed to cover the cost of registration fees for four years of undergraduate studies providing the recipient maintains a minimum 3.5 grade point average. Scholarships
that include room, board, books and in-state fees may be awarded to incoming freshmen providing a 3.5 minimum grade point average is maintained.

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

Be aware of individual scholarship deadlines for SDSU. The scholarship application process is undergoing some changes, so please check the following Web site periodically for information and updates www.sdsu.edu/scholarship.

## COLLEGE OF ARTS AND LETTERS

Africana Studies Department
Dewey and Jessie E. Mosby
Danny L. Scarborough Memoria
Shirley Wade Thomas
Anthropology Department
Norton Allen Memorial
Sonek Memorial
Chicana and Chicano Studies Department
Cesar Chavez Memorial
Clara de Escudero Memorial
Letty Zanchez Memorial
Classics and Humanities Department
Martha Biehl Memorial
Robert and Paula Cottam Memorial in Classics
Friends of Classics Charter
Viola Granstaff Memorial

## Economics Departmen

Center Public Economics
Economics Intern Program
Terhune Economics
Yiannis Venieris

## English and Comparative Literature <br> Department

Creative Writing
English and Comparative Literature M.A
Honorable Scholar Scholarship Fund
Ruth G. Keen Memorial
Mindy Gates O'Mary Memorial
Kenneth and Dorothy Stott Memorial
European Studies Department
Dorothy Knott
Junko Koike
GianAngelo Vergani
Geography Department
Cartography
William and Vivian Finch
Ted H. Greenwood Award
McFarland Geography
Lauren C. Post Memorial

## History Department

Andrew Appleby Undergraduate Memorial Andrew Appleby Graduate Memorial
Katherine Ragen Memoria Lionel Ridout Memorial Richard Ruetten Memorial

Ethelyn Sorenson Memorial Kenneth and Dorothy Stott Memorial Jon Sutherland Memorial
Japanese Language Program
Japan Travel
Kyocera
Tohmatsu Awoki/Touche Ross
Political Science Department
Terhune Political Science
Lewis M. Terrell
Sociology Department
Maxine and C. Dale Johnson Memorial
Sociology Department Fund
Sociology Graduate
Spanish Department
Clifford H. Baker Memorial
Women's Studies Department
Joanne Davis
Hawkins Graduate Fellowship
Betty Nesvold
Andrea O'Donnell Memorial
Women's Studies Graduate

## COLLEGE OF BUSINESS

 ADMINISTRATIONSchool of Accountancy
Accounting Associates
American Society of Women Accountants
Arthur Andersen LLP
Association of Government Accountants
California Government Finance Officers Association
California Society of Certified Public Accountants
Considine and Considine
Deloitte and Touche LLP
Robert Edmond Duke
Elias J. Katzen Memoria
Ernst and Young LLP
Healthcare Financial Management Association

KPMG Peat Marwick LLP
Charles Lamden Memorial
Bernard Nydam Memorial
Rowling Dold and Associates
Toole Family
Price Waterhouse

## Financial Services

Aztec Equity Fund
Burnham Real Estate Services
Robert F. and Fredricka B. Driver/Robert F. Driver Company
Professional Insurance Agents
Information and Decision Systems
Department
APICS
Georgia Amsden Memorial
Andersen Consulting Outstanding Jr. IDS Student
Chevron/Information Systems
Kim Folsom Memoria
Alvin Morrison Memorial

## International Business

Alvord Branan Memoria
CIBER
Coca Cola International Scholarship Program
International Business
International Business Program Fund
International Business: MEXUS
Michael R. Pack
Management Department
David W. Belcher Memoria
Frances Torbert Memorial

## Marketing Department

Connie Fotinos Memorial Ellen Sue Gerber Memorial Marion R Hoechst

Peabody's Coffee
W.A.F.C.

## Real Estate

Burnham Real Estate Services
Robert C. Hird Memorial
San Diego Mortgage Bankers
College of Business Administration Scholarships

College of Business Honors Program
Friedman Family
Robert Hess Memorial
Kaufman Foundation
Edward and Milray Kuhlken
The J. M. Long Foundation
Marjorie L. Reed Memorial
Southeast Asian Alliance

Union Bank of California
Christina Lynn Velasco Memorial
Monica Williams Memorial

## COLLEGE OF EDUCATION

Accenture
Barbara E. Armstrong Memorial
B/CLAD
Gertrude S. Bell
Aileen James Birch
Buster Memorial
Patricia Calhoun Memorial
California Retired Teachers Association
Ben Ziri Caravan
John D. Chamley Memorial
College of Education
Alfred Einstein Living Trust/Vera Einstein Memorial
Davene Gibson
Helen Harris
Peggy J. Hawley
Judy and Donald James Memorial
Russ and Judy James
LaPray/Schmock
Raymond Letsinger Memorial
Catherine Y. Lodge Memorial
C. Edward Reed

Richard Servey Memorial
Dr. Robert D. Smith, Jr. Memorial
John Paul Stone Memorial
Joe and Betty Suozzo
Teacher Education NBPTS
Leslee Teincuff Memorial
Gail White Memorial

## COLLEGE OF ENGINEERING

Civil and Environmental Engineering Department

Civil and Environmental Engineering Department
E. F. Cook Associates
J. G. Landoni

George McBain
Byrl Phelps/San Diego Engineers Club
Pountney and Associates, Inc.
Rick Engineering
Soil Erosion Research Laboratory
Southern California Rock Products Association
W and K Consulting
Josephson Werdowitz and Associates
West Consultants, Inc.
Stuart Wong
Electrical and Computer Engineering
Department
Conexant
Electrical Manufacturing and Coil Winding Associates
Qualcomm
Mechanical Engineering Department ASHRAE
D. Preston Lowrey III Memorial

McAdams Family

John G. Pinto Memorial
Larry D. Thompson Memorial
College of Engineering Scholarships
Achievement Rewards for College Scientists (ARCS)
Engineering Faculty
David G. Fleet
S.L. Frankel

Daphne Fredrickson Memorial
William E. Leonhard, Jr.
Lockheed Leadership
Louise McNally
M.E.P.

Money/Arenz Foundation, Inc.
S. Falck Nielsen Family

NSF/CSEMS
NSF/MEP
Raytheon Systems (NAMS)
Cheng-Mo Sun Memorial
Donald Grey Wilson

## COLLEGE OF HEALTH AND HUMAN SERVICES

Community Health Education
Lori D. Lemas Memorial
School of Nursing
Alvarado Health Foundation
AMN Healthcare Nursing
Dawn M. Benson
Lorraine Sears Bryant Memorial
Katherine R. Foley Memorial
Emma Lora Johnson Memorial
Dorothea Lambert Memorial
Lottie E. Olberg Memorial
Kathy Rahe Memorial
School of Nursing
Petra Steinhauser Memorial
Frances Shimp Tidwell Memorial
George and Ruth A. Warwick
Graduate School of Public Health Monge/Weill
Department of Public Health
School of Social Work
Jaime Brenner Geller Memorial
Disadvantaged Students
Kathleen Koepels Memorial
Mark Todd Sandways Memorial
Maria Sardinas
School of Social Work Fund
Sharp Health Care
Leon Williams
Ernest Witte Memorial
School of Speech, Language, and Hearing Sciences

Dorothy Baronofsky Memorial Sam Foshee Memorial Nella Feldman Gross Memorial
Barry W. Jones Memorial
Kenneth R. Mangan Memorial
Donald Omark
Paul Pfaff Memorial
Kala Singh Memorial

College of Health and Human Services Scholarships

College of Health and Human Services
Gerontology Scholarship Program
John and Jeanette Hebbel
Pearl Koch and Margot Pollak Memorial
David C. Pritchard Memorial

## COLLEGE OF PROFESSIONAL STUDIES AND FINE ARTS

## Aerospace Studies

Lorin M. Kemp Memorial
School of Art, Design and Art History
Art Council
Patricia Clapp Memorial
Joan Costello Erickson
Frances Ellsworth Memorial
Darryl Groover Memorial
Isabel Kraft Memorial
Paul Lingren Family Memorial
John J. Rogers
San Diego Creative Weaver's Guild
Robert D. Wallace
Ellamarie Woolley Art Students Assistance Fund
Child and Family Development Department
Nona Self-Cannon Other Graduate
Mary Quam Hawkins Memorial
Barbara Rosenblatt Memorial
Georgia Tait Stooke Memorial
School of Communication
Robert L. Benjamin
Broom/Devries
Cameron Brown Memorial
James Copley Foundation
Forensics
Harold Keen Memorial
Jack Mills Memorial
Jane Nelson Memorial
Lena Nozizwe
Gracia Ogden Memorial
Val Ryser Memorial
School of Communication
Percie Belle Senn Memorial
Kevin Simmons Memorial
Reggie Smith Memorial
Arthur C. and Mildred Wimer
Exercise and Nutritional Sciences
Department
Mary Cave
D. J. Orthopedics

William Ellis Memorial
Mary Quam Hawkins Memorial
Reet Howell Memorial
Frederick W. Kasch
Margaret "Robin" Murphy Memorial
Miriam Paine Memorial
Physical Education Fund
William Schutte Memorial

## Hospitality and Tourism Management

Hospitality and Tourism
Roscoe
San Diego National Bank

## Military Science

MBK Foundation
School of Music and Dance
Nadine Bolles Memorial
Jean Taylor Brown Memorial
Frances Ellsworth Memorial Joseph J. Fisch Family
Elsie Hiland Fox Memorial Johanna Fox Memorial
M.H. Golden

Joseph E. Johnson
Kiwanis/Chamber Music
Kiwanis/Orchestral
Lieber-Flower
Jan Lowenbach, Musicology
Alvin Morrison Memorial
Music Department Fund
Bessie S. Purdy Memorial
Lucia Robertson Memorial
Edith Savage Memorial
Christine Springston Memorial
Paul C. Stauffer Memorial
George Willis
Marvin Yerkey Memorial
School of Public Administration and

## Urban Studies

Richard Bigger Memorial Cotton/Blend/Associates, Inc.
John Fowler
Marco G. Walshok Memorial
Recreation, Parks and Tourism Department
Bonnie Jean Gore Memorial
Recreation Faculty
School of Theatre, Television, and Film
Bellinghiere Family Memorial
Creative Drama
Drama Department Patrons
Friends and Faculty of Musical Theatre
Michael Harvey
William B. Hektner
Sybil E. Jones Memorial
Gordon Lusk Memorial
Stefanie Madden
Mack Owen Memorial
Marion Ross
Hunton Sellman Memorial
Henry Stanton Memorial
Dude Stephenson

## College of Professional Studies and

Fine Arts Scholarship
Laurin Jones/Arthur Gutierrez Memorial

## college of sciences

## Astronomy Department

Reginald F. Buller Award for Service
Awona Harrington Memorial
William F. Lucas Memorial
Clifford and Ruth Kinnell Smith Memorial

## Biology Department

Jordan Covin Memorial
Crouch Scholarship for Avian Behavior
Evolutionary Biology Graduate
Harold and June Grant Memorial
Hardman Foundation
Mabel Myers Memorial
Rancho Santa Fe Garden Club

## Chemistry Department

Edgar E. and Catherine L. Hardy
Neil Harrington Memorial
Geological Sciences Department
Chevron/Geology
Rollin and Carolyn Eckis
Geology Fund
Awona Harrington Memorial
Mathematics and Statistics Department
BMC Software, Inc.
Money/Arenz Foundation, Inc.
Alba G. Thompson Memorial
Physics Department
Edmond A. Duke
Skolil Fund
Psychology Department
Rebecca Bryson-Kissinger Memorial Dorothe Frick Memorial
Dr. Edward Geldreich Memorial
Oscar Kaplan Postdoctoral
Social Psychology
Doris Townsend Memorial
College of Sciences Scholarships
Achievement Rewards for College Scientists (ARCS)
Frank Alverson Memorial James and Mary Crouch Memorial
Ronald Dietz
Don Eden
David G. Fleet Memorial
Harry E. Hamber Memorial
Robert Harwood Memorial
Grace Hoover Sciences
Phillip and Mary Kantor Memorial
Louise McNally
Paul G. Peninger Memorial
Wilmia Tyler Trott Memorial
William Trowbridge Memorial

## ATHLETICS

Mike Anaya Memorial
Murray Callan Memorial
Don Coryell
Harold and June Grant Memorial
Patricia and Harry Hodgetts
Kelley Athletic
Jessie Klicka Foundation
Bill Ruzich Memorial
Frank Scott Memorial
Orien W. Todd, Jr. Memorial
Eric Wynalda

## IMPERIAL VALLEY CAMPUS SCHOLARSHIPS

American Association of University Woman
Bertha Rosas Soroptimist International of Calexico
Calexico Educational Foundation
Calexico Unified School District Title VII Project Reap
California Correctional Peace Officer
California Eastern Star Fund
Coca Cola International Studies
Educators, SDSU-IV Campus
El Centro Rotary
General Dynamics Land Systems of Imperial Valley
Government Agencies Federal Credit Union
HACU
Lilly Endowment Inc./Hispanic Scholarship Fund
National Hispanic
Niaz Mohamed Family
Joe Patino Family
PEO Sisterhood Chapter BS
Rotary International District \#5340
Scholarship Aid Association for Lutherans,
The Adult Degree Completion
SDSU-IV Campus Academic Excellence
SDSU-IV Campus Associated Students Council International Studies
SDSU-IV Campus Book Scholarship
SDSU-IV International Programs
Tzu-Chi Foundation
Valley Independent Bank

## Imperial Valley Campus Endowments:

 Dean'sDean's Endowment
Enrique (Kiki) Camarena
Francis L. and Edna Rae Frye
Good Sport Howie
Herschel Hudson
Sally McMahon/Doves
Luis Nogales
Doug Patino
Joe Patino Family
Jerry Pennington Memorial
Ralph and Eva Pesqueira
Joe and Dorothy Rodney
Rotary International District 5340
Stephen L. and Susan K. Weber

## GENERAL SCHOLARSHIPS

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

African American Faculty and Staff
Alumni Association
Associated Students
Association of Iranian American Professionals
Aztec Parents Association
Aztec Shops
Donald Basile Memorial
Mary Earnest Bean Memorial
Brian Billotte Memorial
Thomas C. Bishop Memorial
Maryl Brooksher Memorial
Chula Vista Masonic Lodge 626
Community Economic Development
Thomas Cortez
Cotton/Metzger for Gay and Lesbian Students
De la Hunt Emergency
Disabled Student Services
McIntyre Annerino-Meyers
William Calkins Memorial
Arthur Tennes Moe Memorial
Gilbert L. Morlan Memorial
Molly Ann McIntyre
Tobias "Toby" Edgmon Memorial
Emergency Fund
Tony Esse Memorial
Eric Etebari
Extended Studies General
Farmers Insurance
Martha Farnum Memorial
Joseph Ferrero Memorial
Clyde and Myrtle Fields Family Memorial
Fox Foundation
Johanna M. Fox Memorial
Stephen Fraser Memorial
Freshman Success/Hoover
General Fund
Arthur C. Harris Memorial
Rear Admiral Virgil L. Hill
International Study Abroad Program
John Jester Memorial
Ned V. Joy Memorial
Carolyn Kelley Memorial
Wilbur S. Kelley Memorial
Kiwanis Foundation
Conrad Klement Memorial
La Mesa Lions Club
William and Edna LaSalle Memorial
Lipinsky Family
Donald H. Lynn
George Macphee Memorial
May S. Marcy Memorial
Jess and Pamela Marino
Maxey Family
Gail Johnson McAdams Memorial
Jennifer and Robert E. McCabe Memorial
Money/Arenz Foundation, Inc.
Mortar Board Alumni of San Diego
Christopher Mortenson Memorial
National City Middle School
Chris Nichols Memorial
James O'Hara II Memorial
Palz/Nicholson
Deb Pedersdotter
Emma Pellettiri Memorial

Fox Foundation
Johanna M. Fox Memorial
Stephen Fraser Memorial
Freshman Success/Hoover
General Fund

Rear Admiral Virgil L. Hill
International Study Abroad Program
John Jester Memorial
Ned V. Joy Memoria
Wilbur S. Kelley Meraria
Kiwanis Foundation
Conrad Klement Memorial
Mesa Lions Club

Lipinsky Family
Donald H. Lynn
George Macphee Memorial
May S. Marcy Memorial
Maxey Family
Gail Johnson McAdams Memorial

Money/Arenz Foundation, Inc
Mortar Board Alumni of San Diego
Christopher Mortenson Memorial
National City Middle School
Chis Nichols Memorial

Palz/Nicholson
Deb Pedersdotter
Emma Pellettiri Memorial

Phi Beta Delta
Phi Beta Kappa
Carolin Pittman Memorial
Foster S. Post Memorial
President's Scholarship
Price Scholars
Joe and Dorothy Goldberg
Stephen Effron
John F. Reeves Memorial
Residence Hall Association/Michael Hoctor
San Diego Employer Advisory Council
San Diego Insurance Adjusters
San Diego State University Memorial
San Diego State University Retirement Association
San Diego State University Women's Association
Brian Schultz Memorial
Etta Schweider Memorial
Robert Patterson Shields Memorial
SDSU Ambassadors
Gary R. Stephany
Frank G. Tait Memorial
Terry Lynn Thompson Memorial
Tournament of Driving Forces
Undergraduate Deans
Visual/Performing Arts
Dorothy Wells Memorial
D.B. Williams Memorial

Peggy Wolter Memorial
John and Theodora Yarborough Memorial
Mr. and Mrs. John Zweck Memorial

Colleges Imperial Valley Campus

# College of Arts and Letters 

Administration

Dean: Paul J. Strand

Associate Dean: Charles F. Hohm
Assistant Dean for Student Affairs: Leslie S. Johnson
Director of Development: Vincent M. Blocker
Director of Resource Management: Sharon S. McMahon

## 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 cultura expressions and practices, their languages, and their philosophical concepts. The College's highly trained, professionally active faculty seek to give students an awareness about the development of present knowledge and how to generate new knowledge. Students are encouraged to develop keen observation skills, the capacity to think critically, and the ability to express their views intelligently and sensitively as leaders.

## Curricula Offered

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

## Doctoral Program

Geography

## Master's Degrees

Anthropology (M.A.), Asian Studies (M.A.), Creative Writing (M.F.A.), 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.), History (M.A.), Latin American Studies (M.A.), Latin American Studies (M.B.A./M.A.; jointly with the College of Business Administration), 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.), 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.), 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, American Studies, Anthropology, Asian Studies, Chicana and Chicano Studies, Chinese, Classics, Comparative Literature, Economics, English, Environment and Society, European Studies, French, Geography, German, History, Humanities, Islamic and Arabic Studies, Italian, Japanese, Jewish Studies, Latin American Studies, Linguistics, Philosophy, Political Science, Portuguese, Religious 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 Literature, Geographic Information Science, Spanish Court Interpreting (available at Imperial Valley Campus only), Spanish Translation Studies, Technical and Scientific Writing, United StatesMexico 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.

## 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) 594-6524.

## China Institute Paochin Chu, Director

The China 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.

## Institute of Druze Studies <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) 5941004, or www.druzestudies.org.

## 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 40 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 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 Philosophy Department, 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.

## 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.

## Center for International Business Education and Research (CIBER)

## Michael L. Hergert and Steven J. Loughrin-Sacco, Co-Directors David P. Earwicker, Managing Director

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

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

CIBER is located in Business Administration 428; (619) 594-3075; FAX (619) 594-7738; ciber@mail.sdsu.edu; www.sdsu.edu/ciber.

## International Population Center John R. Weeks, Director

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

## Institute for International Security and Conflict Resolution

## Alan R. Sweedler and Dipak Gupta, Co-Directors

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

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

The Institute promotes teaching and research by organizing public forums, faculty and student seminars, developing appropriate curricula for undergraduate and graduate instruction and facilitating research and scholarly activities. SDSU offers, through IISCOR, a multidisciplinary Bachelor of Arts degree in International Security and Conflict Resolution.

## International Technology and Trade Network (ITTN) David P. Earwicker and Marc Siegel, Co-Directors

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. For more information, contact David Earwicker with the SDSU CIBER at (619) 5946023 or david.earwicker@sdsu.edu.

## Center for Islamic and Arabic Studies <br> Paul J. Strand, Acting Director

The Center for Islamic and Arabic Studies administers the minor in Islamic an 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.

## Latin American Studies <br> James B. Gerber, Director <br> Hugo Murillo, Associate Director

The Center for Latin American Studies seeks to encourage teaching and research related to Latin America. It has primary responsibility for the administration of the Latin American undergraduate and graduate degrees. 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 (one of only 21 in the nation) 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: Anthropology; Art, Design, and Art History; English and 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. In addition, the Center is involved with the development of innovative methods of instruction in Spanish, Portuguese, and Mixtec; the provision of informative 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.

## 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).

## National Center for the Study of Children's Literature Alida L. Allison, Director

The children's literature group in the Department of English and Comparative Literature has an international reputation for its academic children's literature program as well as a critical mass of children's literature professors

For 25 years, SDSU's Children's Literature Circle has served as a focus for regional commitment to children's literature and to enhance the understanding of scholars, teachers, students, and librarians of the intricacies of the field. The Children's Literature Circle has developed into the National Center for the Study of Children's Literature.

The Center will promote scholarly research and support the preparation of future literature teachers. A strong international community of scholars as well as a growing national cadre of those committed to and active in this field will benefit from the Center. For those who already define themselves as children's literature scholars, the Center will provide leadership through such activities as conferences, festivals, colloquia, and special events. For those who are training in this field, including prospective and current educators at all levels, the Center plans to offer courses, summer programs, and workshops offering the study of children's literature from advanced critical perspectives.

## Institute for Regional Studies of the Californias 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. The Institute focuses on the border region of California and Baja California and is also concerned with important issues of the United States-Mexican border and 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 institutions.

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

IRSC has under way major applied research projects on border environmental issues and policy, regional economic issues, and transborder planning issues. IRSC serves as the SDSU link to the Southwest Center for Environmental Research and Policy, a congressionally established consortium of Mexican and U.S. universities for research and policy studies on environmental issues of the border.

## Social Science Research Laboratory Douglas S. Coe, Director http://ssrl.sdsu.edu

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 five units: Instructional Services, Research Services, Systems Support Group, CAL Help Desk, and Data Resources. The department employs 12 full-time staff and over 50 part-time employees classified as lecturers, graduate teaching associates, laboratory consultants, research assistants and data collection specialists.

Instructional Services works closely with faculty 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 and on
utilizing academic Internet resources; (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 open-access computing classrooms.

Research Services offers a complete range of public opinion polling and survey research services, including sample design, data collection, data reduction, graphic presentation of data, statistical analysis, and data archiving. The section maintains computer systems to support faculty research. Undergraduate internships and research assistant positions are available. Typical research clients include units of government, community groups, and research projects conducted by faculty and SDSU administrators.

Data Resources assists faculty and students in searching for and using archived datasets. Principal sources of archived and electronically accessible information 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 Lexis/Nexis Academic Universe. Assistance is provided for locating, downloading, installing, and subsetting datasets for instructional or research applications.

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 and hardware, virus recovery, and procurement advice.

CAL Help Desk serves as the initial point of entry and triage for College of Arts and Letters faculty and staff who need assistance with computer-related problems. Work order requests for hardware and software problems are entered into an on-line system that schedules technical services. The Help Desk also conducts an extensive individualized software coaching program for individual faculty and staff in their office.

The SSRL is located in Professional Studies and Fine Arts 140.

# 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 www.sdsu.edu/business.

## Administration

Dean: Gail K. Naughton
Associate Dean for Academic Affairs: Robert W. Wilbur
Associate Dean and Director of
Graduate Program: Kenneth E. Marino
Associate Dean for Community Economic
Development: Harold K. Brown
Assistant Dean for Student Affairs and Director of the Business Advising Center: Patricia N. L. Dintrone
Assistant Dean for Student Relations: Jeffrey W. Glazer
Director of Communications: Shelley Herron
Director of Executive Management
Programs: Candace M. Williams
Director of Resource Management: Debra Tomic
Director of Undergraduate Programs: 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<br>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.IM.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) Harold K. Brown, Associate Dean and 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 ten business courses: Introduction to CED, Accounting, Consensus Community Organizing, Financial Management, Legal Structures, Marketing Strategies, Organizational Management, Alternative Sources of Capital, 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.

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

The Corporate Governance Institute (CGI) is an education and research center dedicated to the study and application of corporate governance principles. Founded in 1998 as a joint venture between
the College of Business Administration (CBA) and the Corporate Directors Forum, 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.

The CGI conference room is located in Student Services 3375-A. CGI staff can be reached by telephone at (619) 594-0823, or by e-mail at corporate.governance@sdsu.edu. The CGI Web site is www.corporategovernance.cc.

## Entrepreneurial Management Center (EMC) Sanford B. Ehrlich, QUALCOMM Executive Director Richard D. Brooks, Director of Community Relations 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 is essential to the future of the San Diego region. The mission of the EMC is to assist this sector of the economy through educational 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 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 competition involves students from colleges around the world. The EMC is located in Gateway 1502, (619) 594-2781; FAX (619) 594-8879; www.sdsu.edu/emc.

## Center for Hospitality and Tourism Management Robert A. Rauch, Director

The Center for Hospitality and Tourism Management represents a joint venture equally supported by the Colleges of Business Administration and 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 attractions, events, and convention 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 430, (619) 594-4964; www.sdsu.edu/business/htm.

## Center for International Business Education and Research (CIBER) <br> Michael L. Hergert and Steven J. Loughrin-Sacco, Co-Directors David P. Earwicker, Managing Director

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

CIBER promotes: (1) interdisciplinary programs that 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.

CIBER is located in Business Administration 428; (619) 594-3075; FAX (619) 594-7738; ciber@mail.sdsu.edu; www.sdsu.edu/ciber.

## International Technology and Trade Network (ITTN)

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 Business Administration and the College of Arts and Letters. 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. For more information, contact David Earwicker with the SDSU CIBER at (619) 5946023 or david.earwicker@sdsu.edu.

## Real Estate and Land Use Institute (RELUI) James L. Short, Director

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.

RELUl'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.

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

RELUI also sponsors an internship program for placement of qualified students with local firms to provide a combined working and learning experience. Additional benefits accrue to interns in the form of academic credits and stipends. For more information, call (619) 594-2301. E-mail: relui@mail.sdsu.edu.

## 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 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: Alberto M. Ochoa and Marlowe J. Berg
Director of Credentials Office: Helen Duffy
Director of Future Educators Center: Evette Hornsby-Minor
Director of Development:

## General Information

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

The College of Education is organized into 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. A Ph.D. program in education is offered jointly with Claremont Graduate University. This unique program features a multicultural education emphasis. An Ed.D. program is offered jointly with the University of San Diego in the following fields: Educational Technology and Teaching and Learning. 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

[^0]Master's Degrees<br>Counseling (M.S.), Education (M.A.), Rehabilitation Counseling (M.S.).

## Bachelor's Degree

Vocational Education (B.V.E.)

Minor<br>Educational Technology

## Teaching and Service Credentials*

## Credential Program

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

## School Service Authorized

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

* Standards and authorizations are being reviewed and revised by the California Commission on Teacher Credentialing.


## 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

Bilingual (Spanish) Special Education, Children's Literature, Cross-Cultural Language and Academic Development (CLAD or BCLAD), Community College Teaching, Developing Gifted Potential, Distance Education, Early Childhood Special Education, Instructional Software Design, Instructional Technology, Reading Certificate, Rehabilitation Administration, Resource Specialist, Supported Employment and Transition Specialist, Teaching the Emotionally Disturbed/Behaviorally Disordered, 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.

## Center for Educational Leadership, Innovation, and Policy Ann I. Morey, Director

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.

## Interwork Institute

Fred R. McFarlane and Ian R. Pumpian, Co-Directors
The Institute's efforts focus on promoting the integration of all individuals, including those with disabilities, into all aspects of school, work, family, and community life. The Institute conducts research, training, and education using a variety of strategies including distance learning technologies. Educational and research efforts involve organizations and individuals in the states, the Pacific Basin, Asia, 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 3890 Camino del Rio North in Mission Valley.

## Center for Learning, Instruction, and Performance Technologies <br> Brock S. Allen, Director

The Center's faculty and staff conducts research on the design and use of technology-based systems for enhancing human learning and performance, monitors trends in advanced applications of educational technology and allied disciplines, and evaluates 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.

The Center also offers the services and capabilities of the College of Education's Educational Design Research Laboratory to clients who are interested in rapid prototyping and formative evaluation of educational products and services. A principle focus of the EDRL is the use of high technology video and computer systems to capture and analyze data about the usability and learnability of prototype products.

## Center for Social Equity Technical Assistance

## 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 Donn C. Ritchie, Director

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

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

# College of Engineering 

## Administration

Dean: David T. Hayhurst
Associate Dean: Gordon K. F. Lee
Assistant Dean for Student Affairs: Bruce D. Westermo
Director of Development: Pamela Becker
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, 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 a high quality, practice based undergraduate engineering education.
- To provide a high quality graduate level education with particular research emphasis on problem areas that confront Southern California and to contribute to the economic development of the region.
- To provide a platform for the dissemination of topical technical information supporting local industry.
- To provide life-long learning opportunities for the practicing professional engineering community in Southern California.
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, electrical engineering, and mechanical engineering are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

## Registration of Engineers

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

## Curricula Offered

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

Doctoral Program<br>Engineering Sciences/Applied Mechanics

## Master's Degrees

Master of Science (M.S.)
Aerospace Engineering, Civil/Environmental 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<br>Engineering

Certificate Program
Rehabilitation Technology

## Research Centers and Institutes

## California Institute of Transportation Safety Sheila Sarkar, Director

The California Institute of Transportation Safety (CITS) was created to conduct research, administer programs, and teach courses in transportation safety. Several renowned professionals in engineering, public health, and psychology are affiliated with the Institute, and GIS is used for engineering design work. CITS offers courses for traffic engineers as well as opportunity for students in transportation engineering to work as interns. Current projects include traffic safety evaluation (engineering and enforcement) of cities, collision mapping and analyses, and statistical research on driving behaviors.

## Communications Systems and Signal Processing Institute 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 M. Ziad Bayasi, Director

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

## Energy Engineering Institute 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.

## Facility for Applied Manufacturing Enterprise (FAME) James S. Burns, Director

The centerpiece of San Diego State University's manufacturing endeavors is the Facility for Applied Manufacturing Enterprise. FAME
was planned as an interdisciplinary center-of-excellence dedicated to science and technology in the area of manufacturing. Its mission is to provide students with a complete and emersive product development environment in which to augment their job experiences with next-century tools and strategies. This facility evolved from the Computer Integrated Manufacturing (CIM) center founded in 1988. Since then, it has grown considerably in physical size and scope. FAME resources include 3000 square feet of dedicated floor space in the Engineering and Engineering Laboratory Buildings and another 2000 square feet for student projects. Manufacturing-related equipment includes plastic injection, compression, extrusion, pultrusion, resin transfer molding and vacuum forming equipment, a composite repair station, ultrasonic scanning equipment, platen presses, mechanical testing machines, ovens, CNC lathe and mill, automated parts bin, and four multi-axis robots. A 3 " diameter by 15 " long, high-pressure and temperature autoclave facility is currently under construction.

## 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.

# College of Health and Human Services 

## Administration

Dean: Dolores A. Wozniak
Associate Dean: Olita D. Harris
Assistant Dean for Student Affairs: Selma E. Reed
Director of Development: Thomas Sloan

## 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: School of Nursing, School of Social Work, School of Speech, Language, and Hearing Sciences, the Gerontology program, and the Graduate School of Public Health.

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

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

## Curricula Offered

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

Doctoral Programs<br>Language and Communicative Disorders<br>Public Health

Master's Degrees
Communicative Disorders (M.A.), Gerontology (M.S.), Nursing (M.S.), Public Health (M.S., M.P.H., M.P.H./M.S.W.), Social Work (M.S.W., M.S.W./M.P.H., M.S.W/J.D.; jointly with California Western School of Law).

## Bachelor's Degrees

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

Minors<br>Communicative Disorders, Gerontology, Health Science, Social Work.

## Certificate Programs

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, and Special Education Specialist for the Deaf and Hard of Hearing.

## Research Centers and Institutes

## University Center on Aging

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

## Center for Behavioral and Community Health Studies John P. Elder, Director

The Center for Behavioral and Community Health Studies 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 experience to diverse students who intend to pursue related careers and offers opportunities for project staff and graduate students to participate in community interventions.

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

## California Center for Childhood Injury Prevention David W. Lawrence, Director

Administered through the Graduate School of Public Health, the California Center for Childhood Injury Prevention serves as a resource center on child and adolescent injury prevention strategies. The primary mission of the Center is to reduce the frequency, severity and cost of child and adolescent injuries by assisting public health agencies and programs to incorporate injury prevention strategies into their ongoing efforts to improve the health and safety of young people. Center staff can provide data on child and adolescent injuries; technical assistance with the development, implementation and evaluation of child and adolescent injury prevention programs; and linkages with agencies, researchers, advocates and injury professionals as well as access to a variety of educational materials. The Center also houses one of the four national sites of the Children's Safety Network.

## Communications Clinic for Speech, Language, Hearing Disorders and Deafness <br> Kathee Christensen and Charlotte Lopes, Co-Directors

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, 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 Michael Eichler, Coordinator

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, 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 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 ReesStealy Research Foundation, and several San Diego-based biotechnology companies. For more information contact the Heart Institute office at (619) 594-5504.

## International Institute for Health and Human Services Development <br> Dolores A. Wozniak, Director

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

## Center for Injury Prevention and Research Dolores A. Wozniak, Director

Administered through the College of Health and Human Services, 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. 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.

## 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. Web site for the Institute is at www-rohan.sdsu.edu/dept/chhs/ nursing/inr.html.

## Institute for Public Health

 Lisa Clark, Executive DirectorAdministered 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 Institute offices are located at 6505 Alvarado Road, Suite 115, (619) 594-2632.

## Social Policy Institute Terry Carrillo, Coordinator

Administered through the School of Social Work, the mission of this Institute is to assist local and 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 Institute is dedicated to helping create quality human service programs through the integration of policy development, state-of-the-art practice models and relevant research. The Institute provides expert technical assistance and consultation to public and private sector leaders in the development of progressive social policy, strategic planning and quality management. The Institute is engaged in examining health and human service issues and problems through
conducting research and evaluations, in reviewing existing studies and reports at the local, state, and national levels; and in preparing recommendations for dissemination to elected officials, special commissions, task forces, business executives, community leaders, and administrators of major institutions. Results, findings, and information are communicated through published professional monographs and journal articles, professional meetings and conferences, op-ed newspaper essays, testimony to political bodies, such as the County Board of Supervisors and State Legislators, a computer Web site, news conferences, and interviews with electronic media representatives. Scholars from several departments within the University individually and in collaboration lend their expertise to the analysis of regional health and human services problems. Issues of focus include children, youth, and family concerns, aging and the elderly, mental health, health care delivery, welfare reform, family violence, immigration, community economic development, diversity and discrimination, and homelessness. The Web site for the Institute is www.sdsu-spi.org.

## Center on Substance Abuse Anita S. Harbert, Director

Administered through the School of Social Work, the Center was established in 1985 with a primary mission of facilitating the development of knowledge and skills for the prevention and treatment of alcohol and other drug problems. Goals include developing and supporting projects in substance abuse research, curriculum, and community service. 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. Ongoing projects of the Center include the Commu-nity-Collegiate Alcohol Prevention Partnership (C-CAPP). C-CAPP is funded by the National Institute for Alcoholism and Alcohol Abuse and the U.S. Department of Education. C-CAPP has the goal of reducing alcohol and other drug problems among college students. Other recent research projects include a study of California's publiclyfunded substance abuse treatment system and an evaluation of the Pacific Southwest Addiction Technology Transfer Center. In addition, the Center provides services such as the Central District Driving Under the Influence Program, providing education and counseling for court-ordered offenders in the central judicial district of San Diego County. It has also been involved in the training of several hundred community professionals in substance abuse intervention, and participates in the San Diego Intercollegiate Consortium for Alcohol and Drug Abuse Prevention, and on the Professional Development Committee of the California Addiction Training and Resource Center at UCSD.

The Center is located at 9245 Sky Park Court, Suite 125, (858) 7150860. The Student-to-Student office is located on-campus, (619) 5945803. The DUIP program is located at Sky Park Court, Suite 101, (858) 467-6810.

# College of Professional Studies and Fine Arts 

## Administration

Dean: Joyce M. Gattas
Associate Dean: Donald R. Martin
Assistant Dean for Student Affairs: Carole A. Robasciotti
Director of Development: Michele Schlecht
Director of Resource Management: Sue Kasuyama

## 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.), Music (M.A., M.M.), Nutritional Sciences (M.S.), Nutritional Science and Exercise Physiology (M.S./M.S.), Physical Education (M.A.), 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.), 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, Journalism, Media Management, Military Science, Music, Naval Science, Physical Education, Public Administration, Public Relations, Recreation, Television, Film and New Media, Theatre Arts.

## Military Curricula

Aerospace Studies, Military Science, Naval Science

## Certificate Programs

Family Life Education, Fire Protection Administration (available through Extension only), Public Administration (available at Imperial Valley Campus only)

## Research Centers and Institutes

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

The main purpose of the Institute for Built Environment and Comparative Urban Research (BECUR) is to: (1) study the impact of culture on the design and shape of the urban built environment; and (2) understand how cities in different cultural settings are being transformed by global processes. BECUR provides a forum for research and dialogue among SDSU faculty and students on the cross-cultural nature of urban space and urban place. The Institute is administered by the College of Professional Studies and Fine Arts. Among its activities, the Institute promotes public lectures and conferences, research projects, and networking among urbanists, social science, planning, design and architectural scholars both in the region, as well as in other parts of the world. The Institute is located in Professional Studies and Fine Arts 111; (619) 594-6964.

## Center for Hospitality and Tourism Management Robert A. Rauch, Director

The Center for Hospitality and Tourism Management represents a joint venture equally supported by the Colleges of Business Administration and 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 attractions, events, and convention 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 430, (619) 594-4964; 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 Pacific leading toward the establishment of a permanent "Pacific Dialogue on the Media."

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.

## Center for International Media and Communication Education Donald R. Martin, Director

The Center for International Media and Communication Education is an effort of the School of Communication and the College of Professional Studies and Fine Arts, in collaboration with the KPBS stations. The Center was established to develop and provide international educational programs in communication as well as professional training for foreign educational institutions and media organizations.

The Center utilizes the academic and professional expertise of the faculty and KPBS personnel to develop international educational and training programs. It develops international linkages between the School of Communication and similar academic programs at foreign universities, and establishes international exchange programs in communication fields for undergraduate and graduate students, faculty members, and media professionals. It administers a variety of service programs that provide consulting and training for international media organizations.

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

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

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

The Institute promotes teaching and research by organizing public forums, faculty and student seminars, developing appropriate curricula for undergraduate and graduate instruction and facilitating research and scholarly activities. SDSU offers, through IISCOR, a multidisciplinary Bachelor of Arts degree in International Security and Conflict Resolution.

## 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.

## 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. The Center mentors graduate students in media in the creation of projects that promote their artistic and technical growth, serves the outreach purposes of the University, 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 for a range of uses 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.

## Institute of Public and Urban Affairs Louis M. Rea, Director

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

## Dr. Sanford I. Berman Institute for Effective Communication and General Semantics

The Dr. Sanford I. Berman Institute for Effective Communication and General Semantics within the School of Communication is dedicated to the study of language and behavior in social context. Contemporary trends no longer seem to answer to the call of the individual's command of language in everyday experience. It is therefore imperative that the connections between communication and the practical realms of polity, family, and society be re-established. To do so requires scholarly attention to and an understanding of the relations among our symbolic activities, society, and the mind. The Dr. Sanford I. Berman Institute serves in this vanguard role. The Institute measures its stature by the success of those it trains to lead a more enriching existence through communication.

## Center for the Visual and Performing Arts

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 through the "Masters of the Living Arts Program," which brings 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 multicultural exhibits and performances.

# College of Sciences 

## Administration

Dean: Thomas R. Scott
Associate Dean for Undergraduate Studies:
Catherine J. Atkins-Kaplan
Associate Dean for Graduate Studies:
Philip J. Langlais
Assistant Dean for Student Affairs: Estralita Martin
Director of Development: Henry D. Steele

## 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, Chemistry, Clinical Psychology, Computational Science, Ecology, Mathematics and Science Education

## Master's Degrees

Applied Mathematics (M.S.), Astronomy (M.S.), Biology (M.A., M.S.), Chemistry (M.A., M.S.), 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.S.), Physics (B.A., B.S.), Psychology (B.A.), Statistics (B.S.).

## Minors

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

## Certificate Programs

Biotechnology, Communications Systems, Geographic Information Science, Introductory Mathematics, Single Subject Mathematics.

## Other Curricula

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

## Research Centers and Institutes

## Edwin C. Allison Center for Historical Science 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 Historical Science 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.

## Center for Behavioral and Community Health Studies John P. Elder, Director

The Center for Behavioral and Community Health Studies is housed at 9245 Skypark Court, Suite 231, 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. Administratively, the Center has three co-directors who report to the deans of the College of Sciences and the College of Health and Human Services. The interdisciplinary center encourages participation from all of the University colleges and departments. Currently, active investigators come from the Departments of Exercise and Nutritional Sciences, Psychology, and the Graduate School of Public Health. Current Center projects involve collaboration between scientists and physicians from a variety of specialties as well as a variety of other institutions, including the County of San Diego and University of California, San Diego. Funding for the Center comes from federal and private foundation grants including several National Institutes of Health agencies. Current sponsors include the American Heart Association, Department of Defense, 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 experience to students who intend to pursue related careers and offers opportunities for project staff and graduate students to participate in community interventions.

## Center for Behavioral Teratology Edward P. Riley, 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 at Mission Bay, and liaison with other institutions and the community. The Institute is operated as a special unit of the College of Sciences and is administered by a director and an advisory council committee consisting of faculty members elected from participating departments. Additional information about marine studies is available from the Coastal and Marine Institute office or from the office of the Dean of the College of Sciences.

## Computational Science Research Center José E. Castillo, Director <br> Donald R. Short 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, www.sci.sdsu.edu/csrc.

## Center for Computer Simulation William A. Root, Director

The Center for Computer Simulation pursues research opportunities involving the creation of complex simulations, particularly those addressing challenges in the public sector. The diversity of fields in which computer simulation now plays a role allows the Center to provide research opportunities for undergraduate and graduate students in a wide variety of academic majors.

The Center supports an extensive collection of simulation software under site license, and maintains cooperative relationships with prominent public and private sector simulation software developers to ensure that the Center's capabilities keep pace with the state-of-theart.

Currently the Center includes members from the faculties of Applied Mathematics, Computer Science, Physics, and Statistics. The Center is administered by a director appointed by the Dean of the College of Sciences, and resides in facilities provided by the Department of Mathematics and Statistics. For information, call the Center for Computer Simulation office at (619) 594-6837.

## Education Center on Computational Science and Engineering <br> 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 www.edcenter.sdsu.edu.

## Center for Energy Studies <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.

## Field Station Programs Sedra S. Shapiro, 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 over 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, 1,600 acres of high elevation redshank chaparral habitat in the Chihuahua Valley east of Temecula Valley; the Santa Margarita Ecological Reserve (SMER), a 4,334 acre reserve located along the upper Santa Margarita River inland from Camp Pendleton in San Diego and Riverside Counties; Fortuna Mountain, 500 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 environmental 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 www.sci.sdsu.edu/BFS/

## 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.

## 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 water-related 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 www.sci.sdsu.edu/salton/.

## Institute for International Security and Conflict Resolution

## Alan R. Sweedler and Dipak Gupta, Co-Directors

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

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

The Institute promotes teaching and research by organizing public forums, faculty and student seminars, developing appropriate curricula for undergraduate and graduate instruction and facilitating research and scholarly activities. SDSU offers, through IISCOR, a multidisciplinary Bachelor of Arts degree in International Security and Conflict Resolution. Students and faculty can obtain more information by calling the IISCOR office at (619) 594-6240.

## Center for Research in Mathematics and Science Education 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, Chemistry, Computer Science, Geological Sciences, Mathematics and Statistics, Physics, Psychology, and Teacher Education. It is administered by a director appointed by the dean of the College of Sciences and an associate director appointed
by the dean of the College of Education. Through its activities, CRMSE initiates, encourages, and supports the scholarly pursuit of importan 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 Center is located at 6475 Alvarado Road, Suite 206, San Diego, CA 921205013; telephone (619) 594-5090; campus mail code 1862.

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

The Center for Microbial Sciences is a non-profit 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 microbia 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 is 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.


## Microchemical Core Facility Long T. Wen, Director

The Microchemical Core Facility (MCF) is a component of the California State University Program for Education and Research in Biotechnology (CSUPERB). The MCF is a full-service, state-of-the-art facility that provides DNA synthesis, sequencing, and purification services for cell and molecular biologists associated with any of the 22 CSU campuses. In addition, the MCF provides for CSU faculty access to the most recent advances in computer-assisted analyses of molecular structure. Located in the Biology Department at SDSU, the MCF provides state-of-the-art molecular analyses and characterization to CSU scientists for the lowest possible cost, as well as fostering the training of university faculty at all levels in the most recent techniques available in the molecular life sciences. Funding for the establishment and maintenance of the SDSU MCF is derived from the National Science Foundation with matching funds provided by the State of California. Call (619) 594-1669 for more information.

## 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 and Chemistry, 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.

## Center for NExTWORK William A. Root, Director

NExTWORK - SDSU's Nexus for Technology Workforce Education - 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. Nextwork keeps local industry and government leaders, and the San Diego community informed about SDSU's initiatives in addressing local technology workforce needs. 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 current prototype programs:

- The Technology Workforce Watch undertakes quarterly surveys of the anticipated technology workforce requirements of a representative sample of local technology firms.
- The Technology Workforce Bulletin, mailed quarterly to selected technology industry leaders and regional legislators, presents recent findings of the Technology Workforce Watch and describes SDSU's responding educational initiatives.
- The Industry Certification Curriculum Program promotes expansion of existing computer science courses into multisemester 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 community programs provide curriculum development and instructional support to SDSU faculty and College of Extended Studies programs for the public at large.
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 and the College of Extended Studies. For further information, call the Nextwork office at (619) 286-8715 or (619) 9948715.


# Imperial Valley Campus 

## Administration

Dean: Khosrow Fatemi

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

## Faculty

Emeritus: Ayala, Baldwin, Ballesteros, Erzen, Harmon, Hill, King, Merino, Polich, Spencer, Varela-Ibarra
Professors: Dunn, Elizondo, Fatemi, Medeiros, Reyes, Ryan, Shumaker
Associate Professors: Amaral, Castañeda, Champion, Garrison, Neumann, Sabath, Stampfl
Assistant Professors: Arquette, Coates, Herrera, Hughes, Marx, Mendez, Ponce, Verzi, West
Lecturers: Cook, Fuentes, Livingston, McNett, Murphy

## General Information

The Imperial Valley Campus is a two-year upper-division campus of San Diego State University serving the desert area of southeastern California. It is accredited as an integral division of SDSU and operates under the same academic calendar. Established in 1959 by an act of the State legislature, the campus is located in the Imperial Valley on the Mexican border in the city of Calexico. Offering 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. The campus 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 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.

## 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
In addition, the Imperial Valley Campus, in cooperation with academic units and the Graduate Division on the San Diego campus, offers the following graduate programs leading to advanced degrees.

Master of Arts degree in Education
Concentration in Elementary Curriculum and Instruction
Concentration in Secondary Curriculum and Instruction
Master of Public Administration
Master of Science degree in Business Administration
Concentration in International Business
Master of Social Work

## 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.

## 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, Croatia, England, Finland, France, Germany, Mexico, Morocco, Paraguay, Turkey, and the Ukraine. Several other
agreements are in process of negotiation with different academic institutions around the world, including Spain.

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 in London, Paris and Spain; or the International Student Exchange Program (ISEP) Consortia.

## Research Centers and Institutes

## Institute for Agribusiness Entrepreneurship (IAE)

Providing entrepreneurial development, training and data, the Institute for Agribusiness Entrepreneurship will furnish agribusiness executives with the information and resources needed to make proper business decisions. The Institute will be especially helpful to smalland medium-sized companies by encouraging entrepreneurial activities. The activities of the IAE will include: outreach and training for business leaders, sponsoring special studies and practical research on the agricultural sector, data collection and dissemination for both the Imperial Valley region, as well as potential markets, seminars and conferences on new technologies and the economics of agribusiness; and maintaining a directory of existing agribusiness firms.

The Institute will be a needed resource for the Imperial Valley as it plans future economic development and smart growth by providing technical and leadership training to community members and business leaders to enhance their interest in further developing agribusiness in the region.

## California Center for Border and Regional Economic Studies (CCBRES)

The California Center for Border and Regional Economic Studies (CCBRES) specializes in research and database development in the two areas of U.S.-Mexican trade relations and the Imperial Valley. The Center collects and compiles statistics on trade between California and Mexico, encourages research in this area, publishes a monthly bulletin of in-house and sponsored analyses of the issues involved in bilateral trade. CCBRES also hosts conferences and workshops on border issues, ranging from trade and economics to environmental and educational issues. The Center's goal is to become a national resource center for California-Mexican trade relations.

As related to the economic situation in the Imperial Valley, CCBRES has and is maintaining a current economic profile of the Imperial Valley. The data includes economic indicators such as demographic information, quality of life, environmental, labor and agricultural statistics, and macro economic indicators. The Center is providing the community with tools to plan for the future of this binational region.

The Imperial Valley Campus has been designated by the U.S. Department of Agriculture as one of eight national centers of excellence in the United States.

## California Desert Farming Institute

The California Desert Farming Institute at the Imperial Valley Campus of San Diego State University has two distinct components. First, a research unit will explore desert farming and its potential for improving the competitiveness of California and U.S. agriculture. A 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 farmers.

## Center for International Environmental Studies

The Center for International Environmental Studies is a significant addition to the educational landscape of desert Southern California. It is a home for researchers interested in a greater understanding of
environmental management issues with a uniquely international and binational focus. The Center meets an important gap in the environ-ment-related educational opportunities in the country.

As the Center develops, it plans to propose a Master of Science in International Environmental Management. When this program is developed, it will provide the United States-Mexico region, the State of California, and the nation with culturally sensitive professionals who have sound training in resource and environmental management - to meet the challenges and opportunities of addressing environmental issues, managing economic development and participating in global trade in the years ahead.

## Facilities

The 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.

The library 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) 768-5509 for further information. Students can register by the touchtone registration system (RegLine), 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 \$42,404 in scholarships for the 2001-2002 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:

American Association of University Woman
Bertha Rosas Soroptimist International of Calexico
Calexico Educational Foundation
Calexico Unified School District Title VII Project Reap

California Correctional Peace Officer
California Eastern Star Fund
Coca Cola International Studies
Educators, SDSU-IV Campus
El Centro Rotary
General Dynamics Land Systems of Imperial Valley
Government Agencies Federal Credit Union
HACU
Lilly Endowment Inc./Hispanic Scholarship Fund
Mr. and Mrs. Bernard Lipinsky
National Hispanic
Niaz Mohamed Family
Joe Patino Family
PEO Sisterhood Chapter BS
Rotary International District \#5340
Scholarship Aid Association for Lutherans, The Adult Degree Completion
SDSU-IV Campus Academic Excellence
SDSU-IV Campus Book Scholarship
SDSU-IV International Programs
Tzu-Chi Foundation
Valley Independent Bank

## Endowments:

Dean's
Enrique (Kiki) Camarena
Good Sport Howie
Herschel Hudson
Sally McMahon/Doves
Alejandro and Florencia Nogales
Douglas and Barbara Patino
Joe Patino Family
Jerry Pennington Memorial
Ralph and Eva Pesqueira
Joe and Dorothy Rodney
Rotary International District 5340

## 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 Map

SHERMAN STREET


## BUILDING LEGEND

1. North Classroom Building
(N-101, N-102, N-106, 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)
4. Classroom Building
(C-7, C-8, C-9, C-10)
5. Library

5A. Library Addition
6. Physical Plant
7. Computer Building
9. Faculty Offices: Building East (Classrooms)
10. Faculty Offices: Building West
20. Student Center
21. Student Affairs
22. CLAT-Classrooms


## Division of Undergraduate Studies Graduate Division Nondegree Curricula Continuing Education

# Division of Undergraduate Studies <br> OFFICE: Administration 201 

TELEPHONE: (619) 594-5841
FAX: (619) 594-7934

## Objectives and Functions

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

The Division has a special concern and responsibility for academic programs of a University-wide character. It administers the Liberal Studies and Interdisciplinary Studies in Three Departments majors, the University Honors Program, the Faculty/Student Mentoring Program, the AVID Summer Bridge program, and the Thomas B. Day Freshman Success Programs, an Academic Affairs and Student Affairs partnership endeavor.

The Division also coordinates assessment of student preparedness in writing and mathematics at the freshman and transfer level, and the Upper Division Writing Requirement for graduation

Innovation contributes to the vitality of the University. The Division encourages and assists faculty in the development of new perspectives, programs, and curriculum, and encourages dialogue and discussion of new approaches to teaching through an electronic listserve and journal, and awards.

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

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

## Honors Program

## University Honors Program Jung Choi, 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-201, (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.

## College Readiness Programs

José Preciado, Director

The College Readiness Programs in the Division of Undergraduate Studies 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.

## The Center for Teaching and Learning

The Center for Teaching and Learning is designed to address contemporary campus issues relating to teaching and student learning. Alone, and in cooperation with units throughout the campus, the Center offers programs for faculty, staff, and administrators on topics such as diversity in the classroom, technology and pedagogy, the scholarship of teaching, active and problem-based learning, and the integration of interdisciplinary values and practices into curricula. The Center holds orientations and other events for new tenure-track faculty and lecturers; it serves as a campus clearing house for gathering and disseminating information about teaching and learning resources and events; it encourages systematic research into pedagogies and student learning; it awards grants to faculty attending off-campus conferences, and it works closely with other campus units to encourage discussions of teaching, learning, diversity in the classroom, non-academic factors and student achievement, and assessment.

## Student Success Programs

## Thomas B. Day Freshman Success Programs Melody L. Kilcrease, Director

Endowed by Bernard and Dorris Lipinsky, the Thomas B. Day Freshman Success Programs were designed to offer new freshmen opportunities which will help lay a strong foundation for them to be successful in their college work. TBDFSP is a partnership program sponsored by 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 acquire study and interpersonal skills necessary for academic and personal success. They hone their critical thinking abilities, learn how to communicate effectively with professors and gain experience in goal-setting and academic planning. The curriculum includes special sessions giving students knowledge of campus
resources including the library, academic advising, career planning, health and wellness services. For more information, contact the Thomas B. Day Freshman Success Programs, (619) 594-3212 or visit www.sdsu.edu/fsp.

Integrated Curriculum. Offered in conjunction with various colleges, the Integrated Curriculum is an academic package of courses designed to help freshmen adapt to SDSU's academic standards and achieve their academic goals. Students enroll in one of the packages which then becomes their set of classes for the semester. Some of the IC packages are designed for specific majors and include core courses for that particular major. Others feature General Education courses as their academic centerpiece. Also included is a section of the University Seminar course as well as partner courses in writing and mathematics. For more information, contact the Thomas B. Day Freshman Success Programs, (619) 594-3212 or visit www.sdsu.edu/ fsp.

Living/Learning Center. The LLC is a residence hall option in which freshmen live together in Maya and Olmeca Residence Halls. Participants in this option are automatically enrolled in an Integrated Curriculum which includes the University Seminar course. In the LLC students take advantage of special advising, workshops, and study information. They also enjoy comfortable living accommodations, a computer room, study lounge, recreation, and television rooms. Contact the Office of Housing Administration, 6050 Montezuma Road, (619) 594-5742 for more information.

## Faculty-Student Mentoring Program <br> Randi E. McKenzie, 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 and at the Imperial Valley Campus, trained, upperclassmen provide one-on-one mentoring. At weekly meetings, mentors serve as guides to assist with 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, Engineering, 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.

## Graduate Division

## OFFICE: Centennial Hall 3320 <br> TELEPHONE: (619) 594-5213 <br> FAX: (619) 594-0189 <br> EMAIL: gra@mail.sdsu.edu

## Organization and Administration

The Graduate Division is under the jurisdiction of the Office of the Provost whose administrative officer is the Associate Vice President for Research and Dean of the Graduate Division. 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 Graduate Division serves as chair of the Graduate Council

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

The Associate Vice President for Research and Dean of the Graduate Division 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 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
Chemistry
Clinical Psychology
Computational Science
Ecology
Education

Engineering Sciences/Applied Mechanics Geography
Language and Communicative Disorders
Mathematics and Science Education
Public Health/Epidemiology

## Doctor of Education

The Doctor of Education degree is offered in the following fields: Educational Technology
Teaching and Learning

## 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:

Art
Asian Studies
Biology
Chemistry
Communication
Communicative
Disorders
Economics
Education
English

French
Geography
History
Interdisciplinary Studies
Latin American Studies
Liberal Arts and Sciences
Linguistics
Mathematics
Music
Philosophy
Physical Education

Physics
Political Science
Psychology
Rhetoric and Writing Studies
Sociology
Spanish
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
Biology
Business Administration
Chemistry
Child Development
Civil Engineering
Computer Science
Computational Science

Counseling
Criminal Justice and Criminology
Electrical Engineering
Exercise Physiology Geological Sciences Gerontology
Interdisciplinary
Studies
Mechanical Engineering

## 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 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 Bulletin of the Graduate Division 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 postbaccalaureate study (that is, advanced degree applicants, those seeking credentials or advanced certificates, and those interested in taking courses for personal or professional reasons) must file a complete application within the appropriate filing period. A complete application for graduate study includes the graduate and postbaccalaureate admission application, GRE or GMAT scores, plus supplementary materials determined by individual departments. Postbaccalaureate applicants, including those who completed undergraduate degree requirements and were graduated from this University, are also required to complete and submit an application and the $\$ 55.00$ nonrefundable application fee. Since applicants for graduate programs may be limited to the choice of a single CSU campus on each application, approvals for redirection to alternative campuses or later changes of campus choice will be minimal. Graduate applicants who wish to be assured of initial consideration by more than one campus must submit separate applications (including fees) to each. Online applications are available at www.csumentor.edu/AdmissionApp/.

If necessary, paper applications should be sent to:
Graduate Admissions
San Diego State University
San Diego, CA 92182-8225

## 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 2.75 (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
Graduate Division is the only official admissions authority for graduate study at San Diego State University. See Bulletin of the Graduate Division for further details.

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

## Admission Categories

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)

Only a limited number of students may be considered for admission to the University in postbaccalaureate standing (unclassified). Some wishing to enroll in courses for personal or professional reasons may be so admitted. In rare cases, students may also be admitted in this category for the purpose of removing some prior academic deficiencies. Students who are applying to take prerequisites for professional health schools should indicate premedical, predental, preveterinary medicine, etc., on their application. Admission with postbaccalaureate standing (unclassified) does not constitute admission to, or assurance of consideration for admission to, advanced degree curricula. Students admitted in this category may not enroll in 600-, 700-, 800- and 900-numbered courses without special permission of the instructor and the graduate adviser of the department or school in which the course is offered.

Applicants for admission with postbaccalaureate standing (unclassified) should consult the Bulletin of the Graduate Division for deadline dates for submission of applications.

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

## 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 Bulletin of the Graduate Division for other possible exemptions.)
(b) Have completed an undergraduate major appropriate to the field in which the prospective student desires to earn an advanced degree.
(c) Satisfy the special departmental or college requirements as stated in Part Three of the Bulletin of the Graduate Division under "Courses and Curricula."
(d) Meet the professional, personal, and scholastic standards for graduate study established by the department and the Graduate Council.
Students admitted with graduate standing (classified) are admitted to authorized advanced degree curricula and may enroll in courses numbered 600 and above. Such admission does not imply that a student will be advanced to candidacy for an advanced degree.

## Conditional Graduate Standing (Classified)

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

## Bulletin of the Graduate Division

Complete details on the operation and administration of these requirements, together with other information on graduate study, will be found in the Bulletin of the Graduate Division, 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 are applying with postbaccalaureate standing (unclassified) to take prerequisites for professional health schools should indicate premedical, predental, preveterinary medicine, etc., on their application.

## 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 545A-545B; Political Science 301A301B, 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; 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. The average overall GPA of the entering class of 2001 to UCSF was 3.77 and the science GPA was 3.77 .

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; 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, given early in spring and in August each year. Reservations for this examination must be made at least one month in advance of the scheduled date; application packets are available in the preprofessional health advising office.

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 five 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, 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 following 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 Campus Store.

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, 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, 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 (Dr. Lorna Francis).

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

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

## 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 are expected to 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 five divisions: Special Sessions and Extension, Professional Development, American Language Institute, Special Projects, and Administrative Services. The majority of the programs are operated on a self-support basis since state funds are not provided for Continuing Education activities.

## Limitations on Open University and Special Sessions Credit

Not more than nine units of combined coursework in Open University and special sessions completed prior to admission to an advanced degree or an advanced certificate program will be acceptable on a program of study. Admission to an advanced program requires formal admission to the University and enrollment in at least one course offered in the regular semester for which the student was admitted, a recommendation of the graduate adviser of the particular program, and the approval of the Dean of the Graduate Division. Once matriculated, students may take additional courses in Open University to meet degree or certificate requirements only with the prior permission of the Dean of the Graduate Division.

## Open University

Most regular on-campus courses are open to students through enrollment in Open University. Open University courses earn matriculated 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 I-20 visas from another university.
3. SDSU matriculated students.

## American Language Institute (ALI)

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

Programs offered by ALI are as follows:

## English for Academic Purposes

An 11- to 17-week course for students planning to enter San Diego State or other colleges or universities. Classes are offered in reading, writing, grammar, academic listening/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 twelve 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. Professionals in IEC may specialize in Intensive English for Managers. Regular field trips to places of educational and recreational interest are an integral part of the program.

## Specific Purposes Programs

Programs for students and professionals with specific needs, including Management and Business English; Business Seminar for International Executives; 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 and Winter Special Programs

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

## Services

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

Information about and applications for the ALI can be obtained from the Director, American Language Institute. The Web site address is www.americanlanguage.org.

## Travel Study Programs

The College offers 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 Coordinator of Travel Study Programs.

## 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. 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 on-line. For information on these courses visit the Web site at 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, 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. Extension work is considered the same as transfer credit and is not included in the student's San Diego State University scholastic average.

## Retired Adults Education Program

SDSU's College of Extended Studies' program for lifelong learners is located in Rancho Bernardo. A wide variety of classes, special events and travel study opportunities are offered throughout the year. Anyone age 18 or older is welcome to participate in the Continuing Education Center at Rancho Bernardo's adventures in learning. Please call (858) 487-0464 for a brochure.

## 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 business 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 specializes in developing and implementing 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 training 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 On-Line (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 from broader categories such as leadership, finance, and managing teams, to more specific skill acquisition programs such as implementing ISO 9000:2000 and creating powerful presentations. These on-line 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, manufacturing, quality issues, 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, and telecommunications.

## Corporate Partnerships: Professional Development

Professional Development offers membership benefits to companies joining at the Presidential, Director, and Associate levels. Representatives from member companies sit on advisory boards and play an active role in designing and selecting training courses and instructors. In addition, the annual membership enables the company to get more training for its training dollars. A third benefit to members is the networking opportunities that develop through association with other companies with similar training needs.

# Admission and Registration 

## Schedule Adjustment Policy

Beginning the fall 2003 semester, San Diego State University is implementing a new schedule adjustment policy. All schedule adjustments (formerly called Change of Program) MUST BE COMPLETED BY THE END OF THE FIFTEENTH DAY OF THE SEMESTER. The schedule adjustment period allows you to add a course, drop a course, withdraw from the University, change grading basis, and request course forgiveness. 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 fifteenth day of the semester.

## 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 days of the semester. Students who do not meet prerequisite requirements can also be dropped within the first 12 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 e-Service WebPortal at www.sdsu.edu/e-services. To reenroll, the student must receive an add code from the instructor and reenroll in the course within the first 15 days of the semester.

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 days of the semester.

## 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 www.csumentor.edu. 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.

Admission decisions for fall are based on the information that the student self reports on the admission application, therefore, 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 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 I 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.

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

## Undergraduate Admission Requirements

## First-Time Freshman Requirements

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

- Complete the pattern of college preparatory subjects requirements with grades of C or higher. See "Subject Requirements."
- Must submit SAT I or ACT test scores (regardless of high school grade point average).
- Must be a high school graduate.
- SDSU service area applicants who meet the minimum CSU eligibility index (see "Eligibility Index") of 2900 and fulfill the EntryLevel Mathematics (ELM) and English Placement Test (EPT) requirements will be admitted to SDSU.
- Applicants who are between the minimum CSU eligibility index of 2900 and the eligibility index required of applicants outside of SDSU's service area, and who do not fulfill the ELM/EPT requirements, will be admitted to SDSU's Dual Admission Program. Dual Admission students have one year to complete specified remediation requirements at a service area community college prior to attending SDSU. Visit www.sdsu.edu/dualadmission.


## Outside SDSU Service Area.

- Complete the pattern of college preparatory subjects requirements with grades of C or higher. See "Subject Requirements."
- Must submit SAT I or ACT test scores (regardless of high school grade point average)
- Must be a high school graduate.
- Have a competitive CSU eligibility index (see "Eligibility Index"). The average eligibility index of admitted freshmen for fall 2003 was 4,076 (984 based on ACT). The average high school grade point average was 3.69. The average SAT I total score was 1,123; 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 Test Office. Or, you may write to or call:
The College Board (SAT I)
Registration Unit, Box 6200
Princeton, New Jersey 08541
(609) 771-7588

American College Testing Program (ACT)
Registration Unit, P.O. Box 414 lowa City, Iowa 52243 (319) 337-1270

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

## Eligibility Index

The eligibility index is the combination of your high school grade point average and your score on either the American College Test (ACT) or the Scholastic Aptitude Test (SAT I). Beginning with admission for fall 2004, your grade point average is based on grades earned in courses taken during your final three years of high school that satisfy the comprehensive pattern of college preparatory 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.

You can calculate your eligibility index by multiplying your grade point average by 800 and adding your total score on the SAT I. If you took the ACT, multiply your 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.

- 2 years of social science, including 1 year of U.S. history, or U.S. history and government.
- 4 years of English.
- 3 years of mathematics (algebra, geometry, and intermediate algebra).
- 2 years of laboratory science (1 biological and 1 physical, both with laboratories).
- 2 years in the same foreign language (subject to waiver for applicants demonstrating equivalent competence).
- 1 year of visual and performing arts: art, dance, drama/theatre, or music.
- 1 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) on the Test of English as a Foreign Language (TOEFL).

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

## Transfer Student Requirements

## 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 of transferable bacca-laureate-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.

The following are the minimum requirements for admission consideration and do not guarantee admission to San Diego State University for students outside of SDSU's service area. San Diego State University will have new transfer admission criteria for fall 2004. Visit www.sdsu.edu/admissions.

To be considered for admission as an upper division transfer student, you

1. must have completed at least 60 transferable baccalaureatelevel semester units ( 90 quarter units), including transferable courses in oral communication, written communication, critical thinking, and mathematics with grades of $C$ or better. For fall admission, you must complete all course requirements by the spring term before enrollment at San Diego State University.
2. must have a minimum grade point average of 2.0 in all college work attempted.
Because the number of applicants to SDSU exceeds the number of spaces available for admission, the college grade point average necessary for admission will be substantially higher than 2.0 for students outside of SDSU's service area.

Students transferring from California community colleges or other California State Universities can use the appropriately certified "CSU General Education Breadth Requirement" courses to fulfill the oral communication (A1), written communication (A2), critical thinking (A3), and mathematics (B4) requirements. Students transferring from private or out-of-state colleges or universities must submit courses to fulfill the oral communication, written communication, critical thinking, and mathematics requirements that are equivalent to those required by San Diego State University.

## Admitted Upper Division Transfers

All upper division transfer applicants who receive an offer of admission are admitted provisionally. 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 University General Catalog and each semester's Class Schedule; the most recent published scores will be required.
Applicants seeking admission as an adult student must submit a statement of no more than two pages describing the alternate preparation which the applicant feels has prepared him or her for successful university work. The statement should also describe the applicant's educational goals and what preparation has been made to pursue these goals. Consideration for admission will be based upon a judgment as to whether the applicant is as likely to succeed as a regularly admitted freshman or transfer student and will include an assessment of basic skills in the English language.

## Readmission

If you leave the University for more than one semester, you must file an application for readmission before the stated closing deadline to the term you wish to return, along with a $\$ 55$ application fee. Readmission is NOT automatic.

Readmitted students will be subject to the catalog requirements in effect at the time they resume study at SDSU and remain in continuous enrollment.

Readmission to the University does not guarantee readmission into a major.

## Readmission of Students Who Left the University in Good Academic Standing

If you left SDSU in good academic standing, your SDSU and overall grade point average is a 2.0 or higher, have met all initial admission conditions and completed any required remediation requirements in writing and mathematics, you will be eligible for readmission. If you enrolled at any other college or university after leaving SDSU, you will be required to submit official transcript(s) in order to validate the readmission.

If you left SDSU in good academic standing, but were administratively disqualified, you must satisfy all requirements that led to your disqualification to be considered for readmission.

## Readmission of Students Who Left the University on Academic Probation or Who Were Academically Disqualified

If you left the University on academic probation or you were academically disqualified, you will not be readmitted earlier than one year after leaving, and not before completing 60 transferable units, including earning "C" or higher grades in the General Education requirements in Oral Communication, Written Communication, Critical Thinking, and Mathematics; earning an overall grade point average of at least 2.0; and having an SDSU grade point average that is not more than nine deficit points. Each applicant for readmission will compete with other applicants for available admission spaces. Students who are readmitted with less than a 2.0 SDSU grade point average will be readmitted on probation.

Students who have been disqualified from SDSU twice will NOT be considered for readmission.

## 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 non-immigrant 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 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) on the Test of English as a Foreign Language (TOEFL). This test is administered in most foreign countries. The University must receive official test scores before admission can be granted. Information as to the time and place at which this test is given may be obtained by writing to the Educational Testing Service (TOEFL), Princeton, New Jersey 08540, USA.

Upon arrival at San Diego State University, further tests of English may be given for the purpose of placing students in an English language program commensurate with their linguistic ability in English and to assist 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 IAP-66 form, all F-1 and J-1 visa, applicants must agree to obtain and maintain health insurance as a condition of registration and continued enrollment. 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 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 is 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) 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 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 Housing and Residential Life Office, San Diego State University. Scholarship aid for entering students is limited; no scholarships are specifically reserved for students from another country. Further information regarding scholarships will be found in the 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 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) on the Test of English as a Foreign Language (TOEFL). Some majors may require a higher score.

## 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. If admitted for fall, 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.

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. and Ed.D. applicants, master's degree applicants, those seeking credentials, and those interested in taking graduate level courses for personal or professional growth) must file a complete graduate application as described in the CSU graduate and postbaccalaureate admission booklet. Applicants seeking a second bachelor's degree should submit the undergraduate application for admission. Applicants who completed undergraduate degree requirements and graduated the preceding term are also required to complete and submit an application and the $\$ 55$ nonrefundable application fee. Since applicants for postbaccalaureate programs may be limited to the choice of a single campus on each application, redirection to alternate campuses or later changes of campus choice will be minimal. To be assured of initial consideration by more than one campus, it will be necessary to submit separate applications (including fees) to each. Applications may be obtained from the Office of Graduate Admissions of any California State University campus. An electronic version of the CSU graduate application is available at www.csumentor.edu/.

## Graduate and Postbaccalaureate <br> Admission Requirements

## Admission Requirements

Graduate and postbaccalaureate applicants may apply for a degree objective, a credential or certificate objective, or may have no program objective. Depending on the objective, San Diego State University will consider an application for admission as follows:

## General Requirements

The minimum requirements for admission to graduate and postbaccalaureate studies at a California State University campus are in accordance with University regulations as well as Title 5, chapter 1, subchapter 3, of the California Code of Regulations. Specifically, a student shall: (1) have completed a four-year college course of study and hold an acceptable baccalaureate degree from an institution accredited by a regional accrediting association, or shall have completed equivalent academic preparation as determined by appropriate campus authorities; (2) be in good academic standing at the last college or university attended; (3) have attained a grade point average of at least 2.75 ( $\mathrm{A}=4.0$ ) 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 following categories (consult the Bulletin of the Graduate Division for detailed information):

- Postbaccalaureate Unclassified. To enroll in graduate courses for professional or personal growth, you must be admitted as a postbaccalaureate unclassified student. By meeting the general requirements, you are eligible for admission as a postbaccalaureate unclassified student. Some departments may restrict enrollment of unclassified students because of heavy enrollment pressure. Admission in this status does not constitute admission to, or assurance of consideration for admission to, any graduate degree or credential program; or
- Postbaccalaureate Classified. If you wish to enroll in a credential or certificate program, you will be required to satisfy additional professional, personal, scholastic, and other standards, including qualifying examinations, prescribed by the campus; or
- Graduate Conditionally Classified. You may be admitted to a graduate degree program in this category if, in the opinion of appropriate campus authority, you can remedy deficiencies by additional preparation; or
- Graduate Classified. To pursue a graduate degree, you will be required to fulfill all of the professional, personal, scholastic, and other standards, including qualifying examinations, prescribed by the campus.


## Graduate and Postbaccalaureate TOEFL Requirement

All graduate and 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 on the Test of English as a Foreign Language (TOEFL). Individual degree programs may prescribe 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 must also submit a score for the Test of Written English (TWE). Individual degree programs may use the score on the TWE as an admission criterion or as an advising tool to identify students who may need further training in English.

## Second Bachelor's Degree

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 automatically reported to San Diego State University to be included on the student's transcript at the home campus.

## CSU Visitor Enrollment

Matriculated students in good standing enrolled at one CSU campus may enroll at another CSU campus for one term. Credit earned at the host campus is reported automatically to San Diego State University to be included on the student's transcript at the home campus.

## Intersystem Cross Enrollment

Cross enrollment permits San Diego State University matriculated students to enroll for one course per term at a University of California. Matriculated UC and community college students may enroll for one course per term at San Diego State University under this policy. Cross enrollment students may 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 (with two exceptions noted below).

Currently, only two premajors, prebusiness and preinternationalbusiness, have additional criteria at the point of admission. Students not meeting the criteria, but meeting criteria to be admitted to SDSU, will be admitted to the University and asked to choose an alternate major.

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, are distributed to high school and community college counselors, and are available online at www.calstate.edu/AR/csureview/. Information about the supplementary criteria also is sent to program applicants. Visit www.sdsu.edu/impactedmajors for further information.

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, Painting and Printmaking, Sculpture; Biology and Microbiology; Business Administration;

Child Development; Communication with emphases in Advertising, Public Relations, and General Communication Studies; Computer Science; Criminal Justice Administration; Economics; English and English in Preparation for the Single Subject Teaching Credential; Foods and Nutrition; Health Science with emphasis in Community Health Education; 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 and Spanish in Preparation for the Single Subject Teaching Credential; 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 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.

## Registration and Requirements for Registration

## Registration

San Diego State University students register by the touch tone telephone registration system* (RegLine) or by accessing WebLine, the Internet registration system. On-campus registration is not conducted. The Class Schedule and Student Information Handbook, issued each semester and obtainable at the SDSU Bookstore before the registration period, contains specific information on registration, the courses offered for the term, and a listing of the fees required for enrollment. Students will not be permitted to 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 Competency (Transfer Writing 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 Freshman Registration Workbook that is distributed at new student orientation.

Late Registration. Late registration is allowed during the first 15 days of the semester. Students wishing to late register must pay registration fees plus a $\$ 25.00$ late fee before the end of the 15 th day of the semester. After receiving an add code from the instructor of the course the student wants to add, the student calls RegLine or accesses WebLine 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.

[^1]
## 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. These placement tests are not a condition for admission to the CSU, but they are a condition of enrollment. They 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. Failure to complete remediation by the end of the first year may result in denial of enrollment for future terms.

Students register for the EPT and/or ELM at the Test 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:

- A score of 550 or above on the verbal section of the College Board SAT I 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:
- A score of 550 or above on the mathematics section of the College Board SAT I Reasoning Test or on the College Board SAT II Mathematics Tests Level I, 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.
These tests should be taken at the next opportunity after admission or as soon as possible thereafter.


## Determination of Residence for Nonresident Tuition Purposes

The Office of Admissions is responsible for determining the residence status of all new and returning students for nonresident tuition purposes. Responses to the Application for Admission, Residency Questionnaire, and, as necessary, other evidence furnished by the student are used in making this determination. Nonresident students who wish to be reclassified as residents must complete the Reclassification Request Form, which is available in the Office of the Registrar. A student who fails to submit adequate information to establish eligibility for resident classification will be classified as a nonresident.

The following statement of the rules regarding residency determination for nonresident tuition purposes is not a complete discussion of the law, but a summary of the principal rules and their exceptions. The law governing residence 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, sections 41900-41916. This material can be viewed on the Internet by accessing the California State University's Web site at www.calstate.edu.

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, has been both physically present in the state and has evidence of intent to remain in California indefinitely, may establish California residence for tuition purposes. Evidence demonstrating intent can vary
from case to case and may include, but is not limited to, the absence of residential ties to any other state, California voter registration and voting in California elections, maintaining active California bank accounts, filing California income 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 Title 5 of the California Code of Regulations, sections 41900-41916, and include, but are not limited to, members of the military and their dependents, certain credentialed employees of school districts, and students who have attended 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.

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).

A campus residence classification appeal must be in writing and submitted to:

> The California State University
> Office of General Counsel
> 401 Golden Shore, 4th Floor
> Long Beach, California 90802-4210

The appeal must be submitted within 120 calendar days of notification of the final campus decision. 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 Admissions.

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 notice by the Trustees of the California State University.

## As this catalog goes to print, there has been a proposed increase in the State University Fee of $\mathbf{2 5 \%}$ for undergraduate students and $20 \%$ for graduate students that is subject to Board of Trustees approval.

For updated information regarding the fee structure for 2003-2004 refer to the fall Class Schedule or on-line at http://bfa.sdsu.edu/fmlcolcashiers/regfees.html.

FEES MUST BE PAID PRIOR TO CALLING REGLINE OR ACCESSING WEBLINE. CHECKS ACCEPTED FOR 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 $\$ 40.00$ (a dishonored payment charge of $\$ 20.00$ 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 UN-PAID BY THEIR bank. REFUNDS MAY BE APPLIED AGAINST OTHER AMOUNTS DUE THE UNIVERSITY. CHECKS TO BE MADE PAYABLE TO SDSU. DO NOT ENCLOSE CASH.

In cooperation with SDSU, CASHNet ${ }^{\top}$ MSmartPay allows students to pay their registration fees and/or out of state tuition with MasterCard, Visa, Discover Card or American Express card. The CASHNet ${ }^{\text {TM }}$ 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 ${ }^{\text {TM }}$ SmartPay assesses each customer a service charge based on the transaction amount. See the Web site for details.

COMING SOON: Look for the new ACH payment option that will allow you to pay your fees on-line using your checking account information. Check the Cashiers Office Web site at http://bfa.sdsu.edu/fm/ co/cashiers for more information.

## ADMINISTRATIVE/FINANCIAL HOLDS

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

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

## REGISTRATION FEES - ALL STUDENTS:

(On basis of units carried.)
Fee payment information and instructions are in the Class Schedule available at the SDSU Bookstore.

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

| Units Attempted | Undergraduate | Registration Fee |
| :---: | :---: | :---: |
|  |  |  |
| 0 units - 6.0 units. |  | \$677.00 |
| 6.1 or more units.. |  | .... \$1,007.00 |
|  | Graduate |  |
| 0 units - 6.0 units. |  | . \$725.00 |
| 6.1 or more units.. |  | ....\$1,088.00 |

The above fee also includes a Student Activity Fee of \$15.00, a Student Union Fee of \$71.00, a Health Facilities Fee of \$25.00, an Instructionally Related Activities Fee of $\$ 15.00$, a Health Services Fee of $\$ 85.00$, a Library Use Fee of \$10.00, and a State University Fee of either $\$ 456.00$ or $\$ 786.00$ for undergraduate students, or $\$ 504.00$ or $\$ 867.00$ for graduate students, 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 $\$ 3.00$. 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.
\$282.00*
(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
600.00

* Not to exceed $\$ 8,460.00$ for the fall/spring semesters.


## PARKING FEES

Nonreserved parking space, per semester ................................. \$108.00 Car pool—see Cashiers Office.
Less than four-wheeled, self-propelled vehicle (motorcycle, moped) 27.00

Overnight parking surcharge, per semester 60.00 (Limited overnight parking available on a first come, first serve basis. Students living in residence halls are exempt from fees but subject to limited availability.)
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, con-tact the Disabled Student Services Office (Student Services, Room1661).
miscellaneous fees
(Fees payable when service is rendered.)
Application for admission or readmission (nonrefundable), payable by check or money order at time application is made ..... \$ 55.00
Diversion Program fee ..... 100.00
Dual Admission, Pre-Enrollment Fee ..... 30.00
Enrollment confirmation deposit fee (nonrefundable) ..... 100.00
Late registration (nonrefundable) (Refer to Class Schedule for dates when this fee will be assessed.) ..... 25.00
Late course forgiveness ..... 20.00
Failure to meet administratively required appointment or time limit (late fee) ..... 20.00
Registration installment plan service charge ..... 33.00
Tuition (Foreign or Out-of-State) installment payment plan service charge

$\qquad$
Equal to 15 percent of each installment payment
Photo-identification card (One-time cost to both new undergraduate and graduate students at time of registration.) Non-refundable. ..... 5.00
Lost photo identification card
Photo I.D. Card replacement ..... 10.00
Transcript of record ..... 4.00
Second through tenth transcript, prepared at the same time as the first ..... each 2.00
Additional copies over ten, prepared at the same time ..... each 1.00
AFROTC deposit (Unexpended portion is refundable.) ..... 75.00
Returned check fee* ..... 20.00
Loss of or damage to library materials Replacement cost plus $\$ 8.00$ service charge
Graduation Services Fee ..... 35.00
Latin diploma ..... 22.00
Diploma replacement fee ..... 12.00
Document copying fee ..... 1.00
Application to Teacher Education Credential Program (in addition to $\$ 55.00$ application for admission). ..... 25.00
Credential application fee** ..... 70.00
Credential evaluation fee ..... 25.00
Fingerprinting fee (plus applicable DOJ and FBI fees) ..... 17.00
Musical instrument and audio/visual equipment fee ..... 20.00
Lock and locker fee (optional) ..... 1.00
Lost key fee (per key) ..... 10.00
Towel fee (optional) ..... 4.00
Miscellaneous instructional
course charge As established and approved

* Late fee also charged when applicable.
** Established by and payable to the Commission on Teacher Credentialing.
MISCELLANEOUS INSTRUCTIONAL COURSE CHARGES
Miscellaneous instructional course charges are payable for the fol-lowing courses:
Art 325, 326, 425, 525, 526, 625, 627, 700D.
Computer Engineering 470
Educational Technology 532, 540, 541, 544, 572, 644, 671, 775.
Electrical Engineering 330, 430.


## 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 to pay registration fees and/or tuition. Refer to fees section on page 68. 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 RegLine or WebLine 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 6 units at the time of registration. Foreign students wishing to pay fewer than 6 units must submit written approval to do so from the International Student Center or the Graduate Division, 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 $\$ 20.00$ dishonored payment charge and the $\$ 20.00$ late fee when applicable. Nonpayment of fees or tuition may result in cancellation of your registration and withholding of further services until all financial liabilities have been resolved.

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

## REFUND OF FEES 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 and Student Information Handbook.

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 www.sdsu.edu/ cashiers.

## Refund of Institutional Charges to Title IV Financial Aid Recipients

The following refund 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 a refund must be made to the student or 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 3 days of class | 100 percent of fee |
| Day 4 through Day 14 | 75 percent of fee |
| Day 15 through end of sixth week | 50 percent of fee |
| Seventh week through tenth week. | 25 percent of fee |
| Eleventh week through end of ter | . None |

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. Parking fees (nonreserved spaces) (per week) \$8.00

## 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: Children of deceased public law enforcement or fire suppression employees who were California residents and who were killed in the course of law enforcement or fire suppression duties (referred to as Alan Pattee Scholarships);

Section 66025.3 - Qualifying children, spouses, or unmarried surviving spouses of a war period veteran of the U.S. military who is totally service-connected disabled or who died as a result of service-related causes; children of any veteran of the U.S. military who has a serviceconnected disability, was killed in action, or died of a service-connected disability and meets specified income provisions; qualifying dependents 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 - Student enrolled in an undergraduate program who is the surviving dependent 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 must have been 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 filling period and be admitted under regular admission requirements. Participants register for classes on a space-available basis after regularly matriculated students have completed registration. For additional information, contact the Office of Admissions.

## 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 sometimes a student referendum. The campus President may use alternate consultation mechanisms if he 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. Authority to adjust fees after consideration by the campus fee advisory committee and the completion of a student referendum is delegated to the President.

## 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 receive official transcripts of grades or other services offered by the institution from anyone owing fees or another debt to the institution. 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 business 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

## Summary of Curricula

Major and Credential Codes

## 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 2003, May 2004, or in the 2004 Summer term may adopt this catalog by so indicating on their application for graduation.

## I. Competency Requirements: Mathematics and Writing

All students, whether freshmen or transfer, 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 PRIOR to registration in any courses. 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 remediate both the ELM and EPT by the end of the third term, including Summer term, of enrollment are subject to disenrollment. Transfer students who do not pass the Transfer Writing Assessment by the end of the second semester of attendance are subject to the loss of registration priority.

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 I 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. AP score of 3 on mathematics AB or BC examination or the statistics examination (The College Board Advanced Placement Program).
e. Score of 550 on the College Board Mathematics Achievement Test, Level I or IC or II or IIC.
f. Score of 550 on the College Board SAT II Mathematics Test, Level I or IC or II or IIC.

## 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.

## MATHEMATICSTESTING REQUIREMENTS:

## TRANSFER STUDENTS

Transfer students generally fulfill their mathematics testing requirement by passing a transferable college level mathematics course with a "C" grade or better. Transfer students who do not meet this requirement will be held to the freshmen mathematics testing requirement.

## 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 I verbal score of 550 (Scholastic Aptitude Test or Scholastic Assessment Test) if taken after March 1995. SAT or SAT I verbal score of 470 if taken before March 1995.
c. ACT English usage score of 24 (American College Test) if taken after October 1989.
d. AP score of 3 on Language and Composition or Literature and Composition (The College Board Advanced Placement Program).
e. Score of 600 on the College Board Achievement Test in English Composition with Essay.
f. Score of 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.

## OR

II. Complete BOTH a. and b. (below)
a. Pass with a C or better a transferable GE English course AND
b. Pass the SDSU Transfer Writing Assessment (Writing Competency Test) or earning credit (Cr) in Rhetoric and Writing Studies 92A, 92B, 94, 97A, 97B.

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: Rhetoric and Writing Studies 92A, 92B, 94, 97A, 97B.
Credit earned in Rhetoric and Writing Studies courses numbered below 100 are not applicable to the baccalaureate degree.

## WRITING TESTING REQUIREMENTS: TRANSFER STUDENTS

The method by which transfer students demonstrate writing competency will change as of December 30, 2003. The change will apply to ALL undergraduates regardless of catalog year or matriculation date who have not yet completed Transfer Writing Assessment as of December 30, 2003.

Demonstration of writing competency is satisfied in one of the following ways:
I. Complete BOTH a. and b.
a. Pass with a C or better a transferable GE English Composition course.
AND
b. Pass the SDSU Transfer Writing Assessment [Writing Competency Test] OR earning credit (Cr) in Rhetoric and Writing Studies 95 or 96.
Credit earned in Rhetoric and Writing Studies courses numbered below 100 are not applicable to the baccalaureate degree.

## OR

II. 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 I verbal score of 550 (Scholastic Aptitude Test or Scholastic Assessment Test) if taken after March 1995. SAT or SAT I verbal score of 470 if taken before March 1995.
c. ACT English usage score of 24 (American College Test) if taken after October 1989.
d. AP score of 3 on Language and Composition or Literature and Composition (The College Board Advanced Placement Program).
e. Score of 600 on the College Board Achievement Test in English Composition with Essay.

[^2]f. 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.
Credit earned in Rhetoric and Writing Studies courses numbered below 100 are not applicable to the baccalaureate degree.

## II. Upper Division Writing Requirement

The Upper Division Writing requirement will change as of December 30, 2003. The change will apply to ALL undergraduates regardless of catalog year or matriculation date who have not yet completed the Upper Division Writing requirement as of December 30, 2003.

All students must demonstrate competency in writing skills as mandated by the major and included in each major description.

Before attempting to satisfy this requirement, students must:

1. Have completed or be completing 60 units;
2. Have fulfilled the EPT and/or Transfer Writing Assessment requirement; and
3. Have completed the General Education Communication and Critical Thinking requirement in Composition and Intermediate Composition and Critical Thinking.
Failure to complete these prerequisites precludes satisfying the requirement by any means. Proof of completion of prerequisites is required for enrollment in courses listed below.

Students whose majors do not specify any particular course or procedure may select from the following options:

1. Demonstrate the required proficiency by passing the University Upper Division Writing Examination.
2. Pass with a grade of Cr or $\mathrm{C}(2.0)$ or better one of the following courses:

Asian Studies 360W
Chicana and Chicano Studies 396W
Communication 310W
English 306W
English 508W
English 581W
English 584W
History 400W
History 450W
Information and Decision Systems 390W Information and Decision Systems 396W
(Note: Several of these courses are limited to majors in the indicated department or have additional prerequisite requirements. Courses required for the major must be taken for a letter grade.)
3. Pass the Transfer Writing Assessment Test with a score of 10 or higher beginning June 1, 2002.
Students who transfer from another CSU campus having fulfilled the Upper Division Writing requirement will not be required to repeat it. Please note, however, that a course listed above may be required for the major.

## III. Major and Minor Requirements

A. Preparation for the Major. Every major requires a set of introductory and/or skills courses designed to prepare the student for upper division study in that field. Courses taken for this purpose may also be used to satisfy General Education requirements if approved for General Education.
B. Major. Completion of a departmental or an interdisciplinary major is required. Students must meet major requirements in effect at time of declaration of major, provided continuous enrollment has been maintained, except as otherwise provided in the California Code of Regulations, Chapter 5, Section 40401, Election of Regulations. 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. Courses taken in the major department or in satisfaction of the major cannot be used to meet requirements in a minor or in General Education. A three-unit General Education course required for your major but not in your major department may be used in Section III (American Institutions) or 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.

* Includes Preparation for the Major courses in Social Work.
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 $2.0(\mathrm{C})$ 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

## B. Transfer courses from accredited California Colleges and Uni-

 versities: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 SDSU Test Office, OR
b. Completing one of the following SDSU courses: Africana Studies 170B; Chicana and Chicano Studies 120B, 141B; History 110*, $116^{+}, 410,445,547 B ;$ Political Science 102**, 320**, 321, 422; Religious Studies 390B; Women's Studies 341B.
[^3]
## V. Foreign Language Requirement

Students whose majors lead to the Bachelor of Arts degree in liberal arts and sciences or the Bachelor of Music degree must satisfy a Foreign Language requirement as indicated below. Students whose majors lead to other degrees are not subject to this requirement.

Exclusion: Conversation courses may not be used to meet this requirement.

Native speakers from foreign countries where English is not the principal language and who have finished high school or the equivalent in that country will be considered to have satisfied the Foreign Language requirement and will not be given credit for taking lower division courses in their native language except with advance approval from the department.
A. The Bachelor of Arts degree in liberal arts and sciences (see exceptions above) require competency in one foreign or American Indian language. Such competency can be demonstrated by:

1. Successfully completing the third college semester or fifth college quarter in one foreign language;
2. Successfully completing the fourth-year level of high school courses in one foreign language;
3. Successfully completing a third-semester equivalent proficiency examination in one foreign language;
4. Graduating from high school (where English is not the major language of instruction) in a non-English speaking country.
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 4 or higher in German 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 Foreign Language requirement under their respective majors for special conditions and limits pertaining to those majors.

Courses offered at San Diego State University which satisfy the Foreign Language requirement are:

Arabic 101, 102, 201 or 202
Chinese 101, 102, and 201
Classics 101G, 202G, and 303G (Greek)
Classics 101L, 202L, and 303L (Latin)
French 100A, 100B, and 200 or 201 or 210 or 221
German 100A, 100B, 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 (These three courses cannot be used to satisfy General Education.)
B. The Bachelor of Music degree (except the specialization in Jazz) requires equivalent knowledge demonstrated in a test of reading knowledge administered by the foreign language department concerned in consultation with the Department of Music or by completion of the appropriate language course as follows:

1. Vocalists - one semester each of French, German, and Italian.
2. Music Education - two semesters of Spanish.
3. All others - two semesters of one foreign language chosen from French, German, or Italian (except that classical guitar students may substitute Spanish).

## VI. Unit Requirements

A. 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 Science degree in Physical Science .................. 130
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 Music degree . 46-54
5. 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:
6. From transferable community and junior college courses ..... 70
7. From credit by examination (excluding AP credit) ................ 30
8. From extension, Open University, and correspondence
courses ......................................................................... 24
*4. From courses graded credit (Cr) .......................................... 15
9. From topics courses numbered 296, 496, $596 \ldots \ldots \ldots \ldots \ldots . . . . . . . . . . . .$.
10. From General Studies courses numbered 200 and $400 \ldots \ldots$. . 6
11. From courses numbered below 100, and courses
numbered $397 \ldots \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~$
12. From Special Study courses numbered 299, 499, 599........... 9
13. From courses numbered 499 from one department
(except Geological Sciences 499) ..................................... 6
14. From Rhetoric and Writing Studies 296 .................................. 3
15. From Aerospace Studies, Military Science, and
Naval Science courses ..................................................... 24
16. From Music 170-189, 369-389, 569-589 (for non-major
and music major for B.A. degree) ................................ 14
17. From Music 170-189, 369-389, 569-589 (for music major for B.M. degree in General Music and Music Education) . 14
18. From Music 170-189, 369-389, 569-589 (for music major for B.M. degree in Performance, Composition, and Jazz Studies). 18
[^4]
## 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 communicative disorders.
b. For students majoring in English
(courses in Comparative Literature, English,
Rhetoric and Writing Studies). 54
c. For students majoring in French or Spanish ..... 49
d. For students majoring in Japanese. ..... 56
e. For students majoring in social work ..... 51
f. For students completing the single subject teaching credential program in Spanish ..... 52
g. For students completing the single subject teaching credential program in Russian .....  54
$h$. For students majoring in art with an emphasis in studio arts ..... 57
2. Bachelor of Music degree. The maximum number of units in upper division music courses acceptable toward the Bachelor of Music degree is 70 .
3. Bachelor of Science degree in Business Administration. The minimum number of units 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 the chapter General Regulations under these headings: Grade Point Average, Grades, Incomplete Grade, and Repeated Course.

## IX. General Education

As an important part of your undergraduate education, you will spend approximately one-third of your college years studying in the General Education program. Coursework in General Education is intended to 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 should not be taken before you reach junior standing (passing 60 units). Explorations courses build on the knowledge you gained in the first three sections, and provide more specialized or thematic study in the disciplines included in Foundations.

## 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.


## Requirements and Limitations

You must complete all requirements in Sections I, II, III, and IV for a total of 49 units. Because you must be a junior ( 60 units) to satisfy the upper division Section IV requirement, you should not register for upper division GE courses until the semester in which you complete 60 units. Only those courses listed in the General Education areas may be used to satisfy General Education requirements.

Within these 49 units, the following limitations apply:

1. No more than 12 units from one department can be used in General Education.
2. No more than 7 units from one department can be used in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).
3. Upper division courses in your major department cannot be used in Sections III (American Institutions) or IV (Explorations).
4. A three-unit General Education course required for your major but not in your major department may be used in Section III (American Institutions) or 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.
5. Explorations courses may not be taken sooner than the semester in which you pass 60 units.
6. Credit/No Credit grades cannot be used in Section I (Communication and Critical Thinking or Section II.A.4. Mathematics/ Quantitative Reasoning).
7. Courses numbered 296, 299, 496, 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. WebLine and RegLine will enforce enrollment in the required courses. This enforcement will occur every semester until the required sequences are completed. This requirement is described in detail in the Freshman Registration Guide at www.sdsu.edu/advising.

## 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)
Linguistics 100. English Composition for International Students (3)
Rhetoric and Writing Studies 100. Writing and Reading as Critical Inquiry (3)
Rhetoric and Writing Studies 101. Writing and Reading as Critical Inquiry (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)
Linguistics 200. Advanced English for International Students (3)
Philosophy 110. Critical Thinking and Composition (3)
Rhetoric and Writing Studies 200. Writing from Sources (3)

## II. FOUNDATIONS (28 units)

No more than seven units total 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)
Chemistry 100. Introduction to General Chemistry with Laboratory (4)

+ Geography 101. Principles of Physical Geography (3)
+ Geography 103. Weather and Climate (3)
Geological Sciences 100. Planet Earth (3)
Geological Sciences 104. Earth Science (3)
Natural Science 100. Physical Science (3)
Physics 107. Introductory Physics with Laboratory (4)

[^5]
## 2. Life Sciences

+ Anthropology 101. Human Biocultural Origins (3)
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)
Physics 107. Introductory Physics with Laboratory (4)
4. Mathematics/Quantitative Reasoning

You may not use Credit/No Credit grades in this section. Biology 215. Biostatistics (3)
Economics 201. Statistical Methods (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 (5)
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)
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).

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)
Economics 100. Contemporary Economic Problems (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)
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)

[^6]C. Humanities. Complete a course in each of four of the following five areas (12 units).

## 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 (3)
Art 259. Introduction to Art History (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)
Humanities 101. Introduction to Humanities (3)
Humanities 130. The Jewish Heritage I (3)
Humanities 140. Mythology (3)
Music 151. Introduction to Music (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: Values (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)
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 200. German for Oral Proficiency (3)
German 205A. Third Course in German (4)

[^7]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)
Linguistics 242. Foreign Language Experiences (3)
Portuguese 101. Elementary/Intensive Portuguese I (5)
Russian 100A. First Course in Russian (5)
Russian 100B. Second Course in Russian (5)
Russian 200A. Third Course in Russian (5)
Russian 200B. Fourth Course in Russian (5)
Russian 211. Intermediate Conversation (3)
Spanish 101. 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)

## 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. Upper Division courses in the major department may not be used to satisfy General Education.

Students who clear American Institutions with a course that does not meet General Education requirements may select an additional three unit course from Social and Behavioral Sciences II.B. or IV. B.

Refer to section of catalog on American Institutions Requirement for approved sequences.

## IV. EXPLORATIONS

Courses in this area must not be taken sooner than the semester in which you achieve upper division standing ( 60 units passed). Upper division courses in the major department may not be used to satisfy General Education.

No more than seven units total may be taken in any one department in Foundations, American Institutions, and Explorations combined.

Complete one course each in areas A, B, and C (9 units). One course must be a course in cultural diversity, designated by an *. (Majors in the departments of Astronomy, Biology, Chemistry, Computer Science, 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.)
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 318. The Origins of Life (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 339. Sociobiology (3)
Biology 341. The Human Body (3)
Chemistry 300. Mysteries and Molecules (3)
Chemistry 308. Chemistry as a Unifying Science (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)
Geological Sciences 305. Water and the Environment (3)
Geological Sciences 308. How Volcanoes Work (3)
Mathematics 303. History of Mathematics (3)
Natural Science 315. History of Science I (3)
Natural Science 316. History of Science II (3)
Natural Science 317. Development of Scientific Thought (3)
Natural Science 333. Technology and Human Values (3)
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 460. American Indian Languages (3)
* American Indian Studies 480. Issues in American Indian Education (3)
* Anthropology 350. World Ethnography (3)

Anthropology 410. Language in Culture (3)

* Anthropology 430. Anthropology of Law and Dispute Processing (3)
Anthropology 432. Principles of Personality in Culture (3)
Anthropology 439. Cultural Comparisons Through Film (3)
* Anthropology 442. Cultures of South America (3)
* Anthropology 445. Ethnology of North America (3)
* Anthropology 446. Native Peoples of the Southwest (3)
* Anthropology 448. Cultures of Oceania (3)
* Anthropology 450. Cultures of India (3)
* Anthropology 452. Japanese Society (3)
* Anthropology 453. Cultures of Southeast Asia (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)
* Asian Studies 331. Women in Asian Societies (3)
[Same course as Women's Studies 331]
* $\dagger$ Asian Studies 460. Contemporary Issues in FilipinoAmerican Communities (3)
* Cultural diversity course.
\# Only one of these two courses may be taken for General Education credit.
$\dagger$ Either Asian Studies 460 (IV.B.) or History 422 (IV.C.) may be taken for General Education credit.
* Chicana and Chicano Studies 301. Political Economy of the Chicano People (3)
* Chicana and Chicano Studies 303. Mexican American Community Studies (3)
* Chicana and Chicano Studies 320. Mexican American Life Styles (3)
* Chicana and Chicano Studies 355. The United StatesMexico International Border (3)
* Communication 371. Intercultural Communication (3)

Communication 408. Mass Communication and Society (3)
\# Community Health Education 353. Sexually Transmitted Diseases (3)

* Community Health Education 362. International Health (3)

Economics 330. Comparative Economic Systems (3)

* Economics 464. Economic Problems of Latin America (3)
* Economics 465. Economic Problems of South and East Asia (3)
Economics 489. Economics and Population (3)
Education 350. Education in American Society (3)
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 420. Disability and Society (3)
* Geography 312. Culture Worlds (3)

Geography 321. United States (3)

* Geography 323. Middle America (3)
* Geography 324. South America (3)

Geography 336. Europe (3)
Geography 337. Republics of the Former Soviet Union (3)
Geography 354. Geography of Cities (3)
Geography 370. Environmental and Natural Resource Conservation (3)

* Gerontology 360. Minority and Ethnic Aging (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 354 . Language and Computers (3)
Linguistics 420. Linguistics and English (3)
$\ddagger$ Management 456. Conceptual Foundations of Business (3)
Political Science 301A. History of Western Political Thought (3)
Political Science 301B. History of Western Political Thought (3)
Political Science 302. Modern Political Thought (3)
* Political Science 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)
Recreation 304. Challenges of Leisure (3)
Recreation 305. Wilderness and the Leisure Experience (3)
* Social Work 350. Cultural Pluralism (3)

Social Work 360. Perspectives on Human Behavior and the Social Environment (3)

Sociology 320. Sex/Gender Roles in American Society (3)
Sociology 335. Mass Communication and Popular Culture (3)
Sociology 338. Sociology of Religion (3)
Sociology 350. Population and Contemporary Issues (3)
Sociology 352. Contemporary Social Problems (3)

* Sociology 355. Minority Group Relations (3)

Sociology 410. Social Psychology: Mind, Self, and Society (3)
Sociology 421. The American Family and Its Alternatives (3)
Sociology 430. Social Organization (3)
Sociology 450. Social Change (3)

* 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)
[Same course as Asian Studies 331]
* Women's Studies 370. Women and the Law (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. Roots of Indian Tradition (3)
* Anthropology 349. Roots of Civilizations (3)
* Anthropology 422. Music and Culture (3)
* Anthropology 424. The Supernatural in Cross-Cultural Perspective (3)
*^ Arabic 330. Arabic Culture (3) Art 357. World Art in Contemporary Life (3)
* Asian Studies 440. New Religious Movements in the Asia Pacific (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. Mexican American 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. Mexican American Culture and Thought (3)
* Chicana and Chicano Studies 380. US/Mexico Borderlands Folklore (3)
\# Only one of these two courses may be taken for General Education credit.
* Cultural diversity course.
$\ddagger$ Majors in the College of Business Administration may not use this course to satisfy requirements for General Education.
$\wedge$ Taught in English.
* Chicana and Chicano Studies 400. Mexican Images in Film (3)
* Chicana and Chicano Studies 450. Contemporary Chicana and Chicano Theatre (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)
${ }^{*} \wedge$ 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 310. Introduction to German Literature (3)
$\wedge$ German 320. German Film (3)
* Hebrew 330. Hebrew Discourse and Literature (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)
*† 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 442A. People Out of Our Past (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 480. History of Corporations in the Modern World (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)
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 History and Appreciation (3)
Philosophy 305. Classics of Western Philosophy (3)
Philosophy 310. Philosophy and Human Nature (3)
Philosophy 329. Social Ethics (3)
Philosophy 330. Medical Ethics (3)
Philosophy 332. Environmental Ethics (3)
Philosophy 333. Philosophy of Technology (3)
Philosophy 334. Philosophy of Literature (3)

* Philosophy 351. Chinese Philosophy (3)

Portuguese 301. Intermediate Portuguese Grammar and Composition (3)
Portuguese 401. Advanced Portuguese Grammar and Composition (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)

[^8]Religious Studies 378. Religion and the Marketplace (3)
Religious Studies 379. Religious Violence and Nonviolence (3)

* Religious Studies 385. American Indian Religions (3)

Religious Studies 395. Alternative Religious Movements (3)
Russian 301. Advanced Grammar and Composition (3)
$\wedge$ Russian 305A. Survey of Russian Literature (3)
$\wedge$ Russian 305B. Survey of Russian Literature (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)
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)


## * Cultural diversity course.

$\wedge$ Taught in English.
@ English 533 may not be used in place of English 302 for General Education credit.
$\dagger$ Either Asian Studies 460 (IV.B.) or History 422 (IV.C.) may be taken for General Education credit.

## 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. An application fee of $\$ 35.00$, which is nonrefundable, is required.

All requirements must be completed by the graduation date. Candidates for graduation are not eligible to register for terms subsequent to the graduation date unless an application for readmission as a postbaccalaureate student has been filed with 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.

## Election of Regulations for Graduation

An undergraduate student remaining in attendance in regular session at any California State University campus, any California community college, or any combination of California community colleges and campuses of The California State University may, for purposes of meeting graduation requirements, elect to meet the requirements in effect at San Diego State University either at the time the student began such attendance or at the time of entrance to the campus or at the time of graduation. Substitutions for discontinued courses may be authorized or required by the proper authorities.
"Attendance" is defined here as attendance in at least one semester or two quarters within a calendar year. Absence due to an approved educational leave or for attendance at another accredited institution of higher learning shall not be considered an interruption in attendance if the absence does not exceed two years. When students change or declare their majors, they must adopt the requirements of the major and any minors in effect at that time.

## Commencement

Commencement exercises are held once a year at the end of the spring semester for students who were graduated at mid-year, those graduating at the end of the spring semester, and undergraduate students who expect to complete requirements for graduation in the summer term. The President of the University, by the authority of the Trustees and on recommendation of the faculty, awards the degrees. Brochures giving details regarding the exercises are mailed to prospective participants in early May.

## Summary of Curricula Offered

| Majors | Applied Arts and Sciences |  | Liberal Arts and Sciences | Graduate Curricula |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BA | BS | BA | MA, MFA | MS | PhD, EdD |
| Accountancy | - | - | - | - | MS | - |
| \# Accounting.. | - | BS | - | - | - | - |
| Aerospace engineering | - | BS | - | - | MS | - |
| Afro-American studies . | - | - | BA | - | - | - |
| American studies | - | - | BA | - | - | - |
| Anthropology. | - | - | BA | MA | - | - |
| Applied mathematics . | - | - | - | - | MS | - |
| Art............... | BA | - | BA | MA, MFA | - | - |
| Asian studies. | - | - | BA | MA | - | - |
| Astronomy | - | BS | BA | - | MS | - |
| Biology | - | BS | BA | MA | MS | PhD |
| Business administration. | - | - | - | MBA | MS | - |
| Business administration and juris doctor. | - | - | - | MBA/JD | - | - |
| Business administration/Latin American studies .. | - | - | - | MBA/MA | - | - |
| Chemical physics... | - | BS | - | - | - | - |
| Chemistry .......... | - | BS | BA | MA | MS | PhD |
| Chicana and Chicano studies. | - | - | BA | - | - | - |
| Child development | - | BS | - | - | MS | - |
| City planning | - | - | - | - | MCP | - |
| Civil engineering | - | BS | - | - | MS | - |
| Classics....... | - | - | BA | $\stackrel{-}{\square}$ | - | - |
| Communication. | BA | - | BA | MA | - | - |
| Communicative disorders | - | - | BA | MA | - | PhD |
| Comparative literature. | - | - | BA | - | - | - |
| Computational science | - | - | - | - | MS | PhD |
| Computer engineering |  | BS | - | - | $\stackrel{-}{\square}$ | - |
| Computer science... | - | BS | - | - | MS | - |
| Counseling.: | - | - | - | - | MS | - |
| Creative writing | - | - | - | MFA | - | - |
| Criminal justice administration . | - | BS | - | - | - | - |
| Criminal justice and criminology ....................... | - | - | - | - | MS | - |
| Dance........ | - | - | BA | - | - | - |
| Ecology. | - | - | - | - | - | PhD |
| Economics | - | - | BA | MA | - | - |
| Education.. | - | - | - | MA | - | PhD |
| Educational technology | - | - | - | A | - | EdD |
| Teaching and learning | - | - | - | - | $\stackrel{-}{-}$ | EdD |
| Electrical engineering . | - | BS | - | - | MS | - |
| Engineering. | - | - | BA | - | ME | PhD |
| English ........ | - | - | BA | MA | - | - |
| Environmental engineering | - | BS | - | - | - | - |
| Environmental sciences |  | BS | - | - | - | - |
| European studies . | - | - | BA | - | - | - |
| Exercise physiology ....................................... | - | - | - | - | MS | - |
| Exercise physiology and nutritional science........ | - | - | - | - | MS/MS | - |
| \# Finance .............. | - | BS | - | - | - | - |
| \# Financial services | - | BS | - | - | - | - |
| Foods and nutrition | - | BS | - | - | - | - |
| French ... | - | - | BA | MA | - | - |
| Geography | - | - | BA | MA | $\stackrel{-}{-}$ | PhD |
| Geological sciences | - | BS | - | - | MS | - |
| German.. | - | - | BA | - | - | - |
| Gerontology | - | - | BA | - | MS | - |
| Health science | - | BS | - | - | - | - |
| History ............ | - | - | BA | MA | - | - |
| Hospitality and tourism management ................ | - | BS | - | - | - | - |
| Humanities .................................................. | - | - | BA | - | - | - |
| \# Information systems | - | BS | A | - | - | - |
| Interdisciplinary studies | - | - | BA | MA | MS | - |
| International business ...................................... | - | - | BA | - | - | - |
| International security and conflict resolution......... | - | - | BA | - | - | - |
| Japanese ....................... | - | - | BA | - | - | - |
| Journalism................................................... | - | - | BA | - | - | - |
| Juris doctor and business administration ............ | - | - | - | MBA/JD | - | - |
| Juris doctor and social work ............................. | - | - | - | A | MSW/JD | - |
| Kinesiology................................................. | - | BS | - | - | - | - |
| Latin American studies ................. | - | - | BA | MA | - | - |
| Latin American studies/business administration . | - | - | - | MBA/MA | - | - |
| Liberal arts and sciences................................ | - | - | - | MA | - | - |
| Liberal studies............................................... | BA | - | A | - | - | - |
| Linguistics ..... | - | - | BA | MA | - | - |
| \# Management. | - | BS | - | - | - | - |
| \# Marketing .... | - | BS | - | - | - | - |
| Mathematics.. | - | BS | BA | MA | - | - |
| Mathematics and science education................. | - | - | - | - | - | PhD |
| Mechanical engineering. | - | BS | BA | - | MS | - |
| Microbiology ................................................. | - | BS | BA | - | MS | - |
| Modern Jewish studies .................................... |  | - | BA | - | - | - |
| Music................... | - | BM | BA | MA | MM | - |
| Nursing. | - | BS | - | - | MS | - |
| Nutritional sciences........................................ | - | - | - | - | MS | - |
| Nutritional science and exercise physiology ....... | - | - | - | A | MS/MS | - |
| Philosophy.................................................... | - | - | BA | MA | - | - |
| Physical education.......................................... | - | - | BA | MA | - | - |
| \# An emphasis within the B.S. in Business Administration. |  |  |  |  |  |  |

Summary of Curricula Offered - continued

| Majors | Applied Arts and Sciences |  | Liberal Arts and Sciences | Graduate Curricula |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BA | BS | BA | MA, MFA | MS | PhD |
| Physical science. | - | BS | - | - | - | - |
| Physics .............. | BA | BS | - | MA | MS | - |
| Political science | - | - | BA | MA | - | - |
| Psychology. | - | - | BA | MA | MS | PhD |
| Public administration | BA | - | - | - | MPA | - |
| Public health .. | - | - | - | - | MPH, MS | PhD |
| Public health and social work | - | - | - | - | MSW/MPH | - |
| Radiological health physics. | - | - | - | - | MS | - |
| \# Real estate.................................................... | - | BS | - | - | - | - |
| Recreation administration | - | BS | - | - | - | - |
| Regulatory affairs.. | - | - | - | - | 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 | - | - | BA | - | MSW | - |
| Social work and juris doctor. | - | - | - | - | MSW/JD | - |
| Social work and public health | - | - | - | - | MSW/MPH | - |
| Sociology | - | - | BA | MA | - | - |
| Spanish.... | - | - | BA | MA | - | - |
| Statistics | - | BS | - | - | MS | - |
| Television, film and new media production | BA | BS | - | MA | - | - |
| Theatre arts............................ | BA | - | - | MA, MFA | - | - |
| Urban studies | ${ }^{-}$ | - | BA | - | - | - |
| Vocational education | BVE | - | BA | - ${ }^{\text {MA }}$ | - | - |
| \# 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, com petence, 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
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
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

## Geological Sciences

(BS, Applied Arts and Sciences)
Emphases:
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:
community health education

## Hospitality and Tourism

Management (BS, Applied Arts and Sciences)
Emphases:
hotel operations and management
restaurant operations and management
global tourism management attractions, events, and convention management
Humanities (BA, Liberal Arts and
Sciences)
Emphasis:
European humanities
International Business (BA, Liberal
Arts and Sciences)
Emphasis in language:
Chinese
English
French
German
Italian
Japanese
Portuguese
Russian
Spanish
Emphasis in regional/cultural studies:
Africa
Asia
Latin America
Middle East
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:
medical technology and public health microbiology

Public Administration
(BA, Applied Arts and Sciences) Emphasis:

## city planning

Recreation Administration
(BS, Applied Arts and Sciences)
Emphases:
outdoor recreation
recreation systems management
recreation therapy
Social Science (BA, Liberal Arts and Sciences)
Emphases:
Africa and the Middle East environment
Statistics (BS, Applied Arts and
Sciences)
Emphasis:
actuarial science
Theatre Arts (BA, Applied Arts and
Sciences)
Emphases:
children's drama design and technology for theatre design for television and film performance

## GRADUATE MAJORS

Applied Mathematics (MS)
Concentration:
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
Communicative Disorders (MA)
Concentrations:
speech-language pathology
audiology
education of the deaf
communicative sciences

## 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 (MA):
natural resources and environmental policy
transportation
Concentration (MS):
geographic information 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 promotion
health services administration
Concentrations (MS):
industrial hygiene
toxicology
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 crosscultural language and academic development (BCLAD) emphasis: Spanish
Single subject
Single subject cross-cultural, language, and academic development (CLAD) emphasis
Single subject bilingual cross-
cultural language and
academic development (BCLAD) emphasis: Spanish

## Specialist Credentials

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
American studies
Anthropology
Art
Art history
Asian studies
Astronomy
Biology
Business administration
Chemistry
Chicana and Chicano studies
Child development
Chinese
Classics
Communication
Communicative disorders
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
Italian
Islamic and Arabic studies
Japanese
Journalism
Judaic studies
Latin American studies
Linguistics
Management
Marketing
Mathematics
Media management
Military science
Music
Naval science
Oceanography
Philosophy
Physical education
Physics
Political science
Portuguese
Psychology
Public administration
Public relations
Real estate
Recreation
Religious 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 (nondegree)

Certificate in accounting
Certificate in applied gerontology
Certificate in applied linguistics and
English as a second language (ESL)
Certificate in bilingual (Spanish) special education
Certificate in bilingual speechlanguage pathology
Certificate in biotechnology
Certificate in business administration (Imperial Valley campus only)
Certificate in children's literature
Certificate in communications systems
Certificate in community college teaching
Certificates in cross-cultural language and academic development (CLAD or BCLAD)

Certificate in developing gifted potential
Certificate in distance education
Certificate in early childhood special education
Certificate in environmental studies
Certificate in family life education
Certificate in geographic information science
Certificate in instructional software design
Certificate in instructional technology
Certificate in introductory mathematics
Certificate in Mexico (BCLAD)
Certificate in personal financial planning
Certificate in preventive medicine residency
Certificate in public administration (Imperial Valley campus only)
Certificate in rehabilitation administration
Certificate in rehabilitation technology
Certificate in resource specialist competence
Certificate in single subject mathematics
Certificate in court interpreting (Imperial Valley campus only)
Certificate in supported employment and transition specialist
Certificate in teaching the emotionally disturbed/behaviorally disordered
Certificate in technical and scientific writing
Certificate in translation studies (Spanish)
Certificate in United States-Mexico border studies
Certificate in workforce education and lifelong learning
The following non-credit programs
are available through Extension
only.
Certificate in business and executive coaching
Certificate in community economic development
Certificate in construction inspection technology
Certificate in construction practices
Certificate in consultancy
Certificate in dietetic internship
Certificate in distance education
Certificate in e-marketing and e-business
Certificate in government contract management
Certificate in human resource management
Certificate in Internet and marketing management
Certificate in lean manufacturing
Certificate in marketing and media specialist
Certificate in medical office procedures
Certificate in meeting and events planning
Certificate in negotiation and alternative dispute resolution
Certificate in occupational health and safety management
Certificate in operations resource management
Certificate in personal fitness training
Certificate in project management
Certificate in telecommunications
Certificate in total quality management

# Major and Credential Codes* 



MAJOR
MAJOR CODE
Liberal Studies (Traditional) Preliberal Studies Stural Studies
(Traditional) 49012 U

Liberal Studies Blended 49081 U Preliberal Studies Blended 49080 U
Linguistics
$+\not \subset$ Management
15051 U \& G

+ $\not \subset$ Marketing
05061 U \& G
Mathematics-B.A. degree 05091 U \& G

Mathematics-B S. 17011 U \& G
17031 U
Mathematics and Science Education
Microbiology Premicrobiology
Modern Jewish Studies
08997 G
04111 U \& G
04110 U
15102 U
Music 10052 U
Music-Performance 10041 U \& G
Music
10041 U \&
Nursing 12031 U \& G Prenursing 12030 U
Nutritional Sciences
Nutritional Science and Exercise Physiology
$\not \subset$ Operations Management
Philosophy
Physical Education
Physical Science
Physics
\& Physiology
Political Science Prepolitical Science $\quad 22071$ U \& G

22070 U
Prepsychology
Public Administration
Public Health
Public Health and Social
Work (concurrent program) 12991 G
Radiological Health Physics 12251 G
$+\not \subset$ Real Estate 05111 U \&
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 Presocial Science 22010 U
Social Work 21041 U \& Presocial Work - 21040 U
Social Work and Juris Doctor
(concurrent program) 21045 G
Social Work and Public Health (concurrent program) 12991 G
Sociology 22081 U \& Presociology 22080 U
Spanish 11051 U \& PreSpanish 11050 U
Statistics 17021 U \& G
$\not \subset$ Systematics and Evolutionary Biology (Zoology)

04071 G
$\notin$ Taxation 05022 G
Television, Film and New Media Production Pretelevision Film and New Media Production Pretheatre Arts 10070 U
Theatre Arts - MFA 10072 G
Undeclared 00000 U
Urban Studies 22141 U
Vocational Education 08395 U
Women's Studies

[^9]NUMERICAL LISTING OF MAJOR CODES

MAJOR CODE
00000 U
02031 U
02061 G
03011 U \& G
03071 U
03081 U \& G
03101 U
03131 U
04010
04011 U \& G
04071 G
04101 G
04110
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
05080 U
05081 U
05091 U \& G
05111 U \& G
05131 U \& G
05151 G
05990 U
05992
05995 G

05997 G
06011 U \& G
06020 U
06021 U
06030 U
06031 U \& G
06032 U
06033 U
06034 U
06040 U
06041 U
06050 U
07010 U
07011 U \& G
07021 U \& G
07992 G
08011 G
08021 G
08031 G
08081 G
08230 U
08231 U \& G
08241 G
08261 G
08271 G
08291 G
08301 G
08350 U
08351 U
08351 G
08355 G
08356 G
08395 U
08992 G

MAJOR
Undeclared

+ Interior Design
City Planning
Asian Studies
Russian and East European Studies
Latin American Studies
European Studies
American Studies
Prebiology
Biology
\& Systematics Evolutionary Biology (Zoology)
\& Physiology
Premicrobiology
Microbiology
$\not \subset$ Molecular Biology
¢ Ecology
Business Administration
+ Agribusiness (IVC)
Accountancy
+ Accounting
\& Taxation
$+\phi$ Finance
+ Financial Services
$\not \subset$ Financial and Tax Planning
+ $\not \subset$ Management
¢ Operations Management
Prehospitality and Tourism Management
Hospitality and Tourism Management
+ \& Marketing
$+\varnothing$ Real Estate
$\not \subset$ International Business
\& Human Resource Management
+ Prepublic Relations
+ Public Relations
Business Administration and Juris Doctor (concurrent program)
\& Entrepreneurship
Communication
Prejournalism
Journalism
+ Premedia Management Television, Film and New Media Production
+ Media Management
+ Telecommunications and Film
+ Pretelecommunications and Film
+ Preadvertising
+ Advertising
Pretelevision, Film and New Media Production
Precomputer Science
Computer Science
+ $\not$ Information Systems
Computational Science
Education
\& Elementary Curriculum \& Instruction
$\phi$ Secondary Curriculum \& Instruction
$\not \subset$ Special Education
Prechild Development
Child Development
\& Educational Research Counseling
\& Educational Leadership
Education (Ed.D.)
$\notin$ Reading Education
Prekinesiology
Kinesiology
Physical Education
Exercise Physiology
Nutritional Science and Exercise Physiology
Vocational Education
$\not \subset$ Educational Technology

MAJOR CODE
08994 G
08997 G
09012 G
09021 U \& G
09081 U \& G
09091 U \& G
09094 U
09101 U \& G
09134 G
09221 U \& G
10021 U \& G
10022 G
10031 U \& G
10041 U \& G
10051 G
10052 U
10070 U
10071 U \& G
10072 G
10081 U
10090 U
10091 U
11021 U \& G
11031 U
11050 U
11051 U \& G
11061 U
11081 U
12010 U
12011 U
12030 U
12031 U \& G
12141 G
12201 U \& G
12201 G
12221 G
12251 G
12991 G
13060 U
13061 U
13061 G
15010 U
15013 G
15031 U
15041 U
15051 U \& G
15060 U
15061 U
15070 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 20010 U
20011 U \& G 20031 G 21020 U
21021 U \& G
21031 U
21040 U
21041 U \& G
21043 U \& G

MAJOR
$\not \subset$ Policy Studies in Language and Cross-Cultural Education
Mathematics and Science Education
Engineering Sciences/Applied Mechanics
Aerospace Engineering
Civil Engineering
Electrical Engineering
Computer Engineering
Mechanical Engineering
Engineering
\& Environmental Engineering
Art
Art - MFA
$+\not \subset$ Art History
Music - Performance
Music
Music
Pretheatre Arts
Theatre Arts
Theatre Arts - MFA
Dance

+ Pregraphic Design
+ Graphic Design
French
German
PreSpanish
Spanish
Russian
Japanese
Prehealth Science
Health Science
Prenursing
Nursing
Public Health
Communicative Disorders
Language and Communicative Disorders
Rehabilitation Counseling
Radiological Health Physics
Social Work and Public Health (concurrent program)
Prefoods and Nutrition
Foods and Nutrition
Nutritional Sciences
PreEnglish
English
Rhetoric and Writing Studies
Comparative Literature
Classics
Linguistics
Precommunication Studies
Communication Studies
Preteaching
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
Prepsychology
Psychology
Clinical Psychology
Prepublic Administration
Public Administration
Recreation Administration
Presocial Work
Social Work
Gerontology

MAJOR CODE
21045 G
MAJOR
Social Work and Juris Doctor (concurrent program)
Precriminal Justice Administration
$\not \subset$ Criminal Justice Administration
Social Science
Anthropology
Preeconomics
Economics

+ International Economics
Prehistory
History
Geography
Prepolitical Science
Political Science
Presociology
Sociology
Criminal Justice and Criminology
International Security and Conflict Resolution
Afro-American Studies
Chicana and Chicano Studies
Urban Studies
Environmental Sciences
Preliberal Studies (Traditional)
Liberal Studies (Traditional)
Liberal Arts and Sciences
Regulatory Affairs
Business Administration and Latin American Studies (concurrent program)
Preliberal Studies Blended
Liberal Studies Blended
Women's Studies
Interdisciplinary Studies
$\phi$ Preinternational Business
49081 U
49991 U \& G
49993 U \& G
80000 U


## CODES FOR CREDENTIALS

## CREDENTIAL

CODE
Single Subject Instruction 00100
Multiple Subject Instruction 00200

Reading/Language Arts Specialist 00410
Special Education: Early Childhood
Special Education
B/CLAD Specialist 00440
Deaf and Hard of Hearing 00461
Special Education: Resource
Specialist 00467
Special Education: Mild/Moderate
Disabilities
Special Education: Moderate/Severe
Disabilities
Special Education: Physical and
Health Impairments

| Administrative Services (Preliminary) <br> Administrative Services (Professional <br> Clear) | 00501 |
| :--- | :--- |
|  | 00502 |


| School Nurse Services | 00600 |
| :--- | :--- |
| Pupil Personnel Services |  |

School Counseling or 00802

Child Welfare and Attendance or 00801
School Social Work 00803

00804
Clinical or Rehabilitative Services:
Language, Speech, and Hearing
00900
Language, Speech, Hearing, and
Audiology

Courses and Curricula

# Courses and Curricula 

## Schedule Adjustment Policy

Beginning the fall 2003 semester, San Diego State University is implementing a new schedule adjustment policy. All schedule adjustments (formerly called Change of Program) MUST BE COMPLETED BY THE END OF THE FIFTEENTH DAY OF THE SEMESTER. The schedule adjustment period allows you to add a course, drop a course, withdraw from the University, change grading basis, and request course forgiveness. 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 fifteenth day of the semester.

## 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 days of the semester. Students who do not meet prerequisite requirements can also be dropped within the first 12 days of the semester. Any student dropped by the instructor during this period will be notified of the action by email. It is the student's responsibility to keep a current e-mail address on file through the e-Service WebPortal at www.sdsu.edu/e-services. To reenroll, the student must receive an add code from the instructor and reenroll in the course within the first 15 days of the semester.

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 days of the semester.

## 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 post-baccalaureate classified standing. 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. Faculty may, during the first week of classes, request students without the prerequisites or equivalent preparation to take formal action to drop the course. Failure to comply will result in a failing grade.

## 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) II ............................Three units. Offered in spring semester. (3-3) $\quad \ldots \ldots \ldots . . . .$. Three units each semester. Year course normally beginning in fall semester.
(3-3) I, II ..............Three units each semester. Year course beginning either semester.
Although the University fully expects to carry out the arrangements planned in the list of courses, it reserves the right to make changes. Classes in which the enrollment does not come up to the minimum number set by the Trustees of the California State University may not be offered or may be postponed.

## Common Courses

## Experimental or Selected Studies or Topics or Workshop Courses $(96,296,496,596)$

Courses offered by departments under the numbers 296, 496, 596 are subject to the following conditions: no more than nine units of such courses shall be applicable toward a bachelor's degree; such courses may be applicable toward the minor or toward preparation for the major only with the approval of the department chair.

Topics courses may be offered by the departments under the number 96. These courses are nonbaccalaureate level and are not acceptable for a bachelor's degree or General Education.

## Special Study (299, 499, 599)

These courses provide opportunity for individual study of a subject not offered in the regular curriculum. The student does this outside of the classroom and must secure the consent of an instructor to supervise the study before registering for the course. The student should discuss the topic with the instructor and come to an understanding on the amount of time to be devoted to the topic, the credit to be earned, and the mode of investigation and report to be used. As with regular courses, the expectation is that the student will devote three hours per week to the subject for each unit of credit. A maximum combined credit of nine units of 299, 499, and 599 is applicable to a bachelor's degree. Maximum credit of six units of 499 in one department applicable to a bachelor's degree.

A 499 or 599 number cannot be used to offer lower division coursework. Also, 299, 499, and 599 cannot be used to extend internships, to award academic credit in place of pay, for work experience, or for class-sized groups.

## Credit/No Credit Courses

Courses which are offered for credit/no credit are indicated by the symbols $\mathrm{Cr} / \mathrm{NC}$ in the course title.

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EMAIL: andrew.barnett@sdsu.edu

A member of AACSB International-The Association to Advance Collegiate Schools of Business.

## Faculty

Emeritus: Brodshatzer, Butler, Ferrel, Meier, Meigs, Samuelson, Snudden, Whittington, Williamson

## Director: Barnett

The Vern E. Odmark Chair in Accountancy: Chow
Professors: Anderson, Bailey, Barnett, Capettini, Chow, Grudnitski, Houston, Lightner, K., Oestreich, Toole, Venable, Whittenburg
Associate Professors: Joh, Lightner, S.
Assistant Professor: Doran
Lecturers: Garrett, 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 has held the position since its creation in 1984. He is widely recognized throughout the country for the breadth of his research and his technical thoroughness.

## The 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.

## Accountancy

In the College of Business Administration

## 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 is concerned that each individual upper division student makes reasonable academic progress toward earning a degree. To this end, the College will counsel students who have earned less than a "C" (2.0) average each semester. Further, such students will be warned that continued poor performance may result in their removal from any business major.

## Transfer Credit

Lower Division: Courses clearly equivalent in scope and content to San Diego State University courses required for minors or as preparation for all business majors will be accepted from regionally accredited United States institutions and from foreign institutions recognized by San Diego State University and the College of Business Administration.

Upper Division: It is the policy of the San Diego State University College of Business Administration to accept upper division transfer credits where (a) the course content, requirements, and level are equivalent to San Diego State University courses and (b) where the course was taught in an 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. Students must apply to enter the University under the business administration premajor code (05011). To be admitted to the upper division accounting major, students must meet the following criteria:
a. Complete with a grade of C or higher: Accountancy 201 and 202; Finance 240 (formerly 140); Information and Decision Systems 180; 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. Clear the lower division competency requirement in writing. Refer to Graduation Requirements section of this catalog for details;
c. Complete a minimum of 60 transferable semester units;
d. Have a cumulative and SDSU GPA of 2.90;
e. 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; and
f. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).

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).

## Accounting Major

With the B.S. Degree in Business Administration (Major Code: 05021)

A minor is not required with this major.
Preparation for the Major. Accountancy 201 and 202; Economics 101 and 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.

Upper Division Writing Requirement. Information and Decision Systems 390W with a grade of C (2.0) or better.

Business Accounting Program Major. Forty-nine upper division units consisting of Accountancy 321, 322, 421, 422, and three units of upper division accountancy electives (not including Accountancy 325 or 326); 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. A maximum of six lower division units in principles of accounting courses may be used to satisfy degree requirements.

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. A maximum of six units of lower division accountancy courses may be used to satisfy the requirements for the degrees. 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; 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 62 units, including all lower division General Education and Preparation for the Major, before beginning their upper division work.

| JUNIOR YEAR (Fall Semester) |  |
| :---: | :---: |
|  | Units |
| Accountancy 321 | 6 |
| Finance 323 | 3 |
| Information and Decision Systems 301. | 3 |
| Information and Decision Systems 390W | 4 |
|  | 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. |  |
| Information and Decision Systems 302. | 3 |
| Management 350 ... |  |
|  | 15 |

Units
Accountancy 321 ............................................................ 6
Finance 323 ..................................................................... 3
Information and Decision Systems 301........................... 3
Information and Decision Systems 390W ........................ 4 16
(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
Management 350 ............................................................. 3 15

## SENIOR YEAR (Fall Semester)

Accountancy 421 ..... 6
General Education Explorations ..... 3
General Education Explorations ..... 3
Marketing 370. ..... 3
(Spring Semester)
Accountancy 422 ..... 3
General Education Explorations ..... 3
Management 405 or ..... 3
Upper division accountancy elective ..... 3
(Students MUST file for graduation and complete theB.S. degree in Business Administration BEFOREcontinuing 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 ..... $\frac{3}{15}$
(Spring Semester)
Graduate accountancy elective ..... 3
Graduate accountancy elective ..... 3
Graduate non-accountancy elective ..... 3
Graduate non-accountancy elective ..... 3
Accountancy 790 ..... 3

## 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.

* Prerequisites 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 SDSU lower division writing competency requirement; 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)

## LOWER DIVISION COURSES

A maximum of six lower division units of accountancy courses may be applied to bachelor's degree requirements for all majors in the College of Business Administration.

## 201. Financial Accounting Fundamentals (3) I, II, S

Theory and practice of accounting applicable to recording, summarizing, and reporting of business transactions for external reporting and other external uses. Asset valuation; revenue and expense recognition; various asset, liability, and capital accounts. Preparation requirement for business majors.
202. Managerial Accounting Fundamentals (3) I, II, S

Prerequisite: Minimum grade of $C$ in Accountancy 201. Proof of completion of prerequisite required: Copy of transcript.

Selection and analysis of accounting information for internal use by managers. Using financial information for planning and control purposes.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES

(Intended for Undergraduates)
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.

## 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-forprofit organizations. Includes material typically contained in Accounting Information Systems, Accounting for Not-for-Profit Organizations, Federal Income Tax, and Intermediate Accounting II.

## 325. Intermediate Managerial and Tax Accounting (3)

Prerequisites: Accountancy 202. Approved upper division business major or minor or other approved major. Not open to accounting majors.

Theories, practices, and concepts needed to satisfy decision making requirements of internal users; tax considerations to managerial decision making. May not be taken for credit by accounting majors.
326. Intermediate Financial Accounting (3)

Prerequisite: Accountancy 202. Approved upper division business major or minor or other approved major. Not open to accounting majors.

Theories, practices, and concepts needed to satisfy the decision making requirements of external users; financial reporting for enterprises engaged in international trade of business. May not be taken for credit by accounting majors.
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.)

## 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.

## 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.

## 496. Selected Topics in Accountancy (1-4) I, II

Prerequisite: Consent of department chair.
Selected areas of concern in accountancy. See Class Schedule for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.
498. Investigation and Report (1-3) I, II

Prerequisites: Senior standing and consent of instructor.
A comprehensive and original study of a problem connected with accounting under the direction of one or more members of the accounting staff. May be repeated with new content. Maximum credit six units.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

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

## 501. Advanced 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.

## 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.

## 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.
504. Federal Taxation of Business Enterprises (3) I, II, S

Prerequisite: Credit or concurrent registration in Accountancy 421 or credit in Accountancy 503.

Taxation of corporations, partnerships, estates, and trusts. Gift and estate tax.
508. Accounting for Not-For-Profit Organizations (3)

Prerequisite: Minimum grade of $C$ in Accountancy 322. Proof of completion of prerequisite required: Copy of transcript.

Principles of fund accounting useful in state and local governmental units, hospitals, colleges, and universities. Comparisons with commercial accounting emphasized. Includes study of budgetary accounting, appropriations, encumbrances, internal checks and auditing procedures.
596. Contemporary Topics in Accounting (1-3)

Prerequisites: Minimum grade of C in Accountancy 322, credit or concurrent registration in Accountancy 421. Proof of completion of prerequisites required: Copy of transcript.

Contemporary topics in modern accounting. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30 -unit master's degree.

## GRADUATE COURSES

Refer to Bulletin of the Graduate Division.

# Administration, Rehabilitation and Postsecondary Education 

OFFICE: 3590 Camino del Rio North, San Diego, CA 92108-1716

In the College of Education

TELEPHONE: (619) 594-6115

Accredited by the Council on Rehabilitation Education.

## Faculty

Emeritus: Lienert, Stevens
Chair: McFarlane
Professors: Atkins, Jacobs, McFarlane, Morey, Piland
Associate Professor: Sax
Assistant Professor: Olney
Lecturer: Siegfried

## Offered by the Department

Master of Arts degree in education.
Concentration in educational leadership with a specialization in postsecondary education.
Master of Science degree in rehabilitation counseling.
Bachelor of Vocational Education degree.
Certificate in community college teaching (refer to Bulletin of the Graduate Division).
Certificate in rehabilitation administration (refer to Bulletin of the Graduate Division).
Supported employment and transition specialist certificate (refer to Bulletin of the Graduate Division).
Certificate in workforce education and lifelong learning (refer to Bulletin of the Graduate Division).
Certificate in rehabilitation technology (refer to Engineering section in Bulletin of the Graduate Division).

## Bachelor of Vocational Education

## (Major Code: 08395)

The Bachelor of Vocational Education is designed primarily for instructors who are teaching, counseling, or providing training in occupational or adult programs, either in secondary school or in postsecondary education programs and qualify for an official evaluation (under provisions of the Swan Bill) through the State Board of Vocational Examiners in Sacramento. To qualify for an evaluation, the requirements of the State Education Code, Section 89223, must be met. This regulation stipulates a minimum period of vocational teaching experience amounting to 1,620 clock hours in a full-time position or 1,000 clock hours in an approved trade technical extension class.

The individual desiring to major in vocational education should follow the basic pattern set down in the following steps:

1. The individual must have an Associate of Arts degree or 60 units. (This should include, if possible, the 40 lower division units of general education required for the bachelor's degree from SDSU. The additional nine upper division units required for General Education must be completed at SDSU.) $\qquad$ 70 units maximum
2. The individual must apply for evaluation of work experience (Swan Bill). Applicants should apply to the Board of Examiners for Vocational Teachers, Bureau of Industrial Education, State Education Bldg., 721 Capitol Avenue, Sacramento, California. These units count toward the major and are classified as upper division units. (See Postsecondary Education Program Coordinator for assistance and application forms.).

40 units maximum
3. The individual must take the following professional occupational teacher education courses:
ARP 380, 381, 382, 499, 565, 568. $\qquad$ .15-19 units maximum
4. The individual must receive credit for the required number of upper division courses to complete the Bachelor of Vocational Education degree graduation requirements. This includes those given in item 2.

40 units
5. The individual must satisfy all other graduation requirements, including mathematics competencies, upper division writing requirement, grade point average, residency, etc.
6. The individual must see an adviser in the area of the major to arrange a program for completion of coursework. A series of elective courses that will support the professional responsibilities of the candidate will be recommended. Furthermore, 30 units must be in residency at SDSU, of which 24 must be upper division.

> Total

120 units

## Courses (aRP)

## LOWER DIVISION COURSE

296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES (Intended for Undergraduates)

380. Principles of Adult and Vocational Education (3) I, II, S

Principles, practices, scope, and functions of adult and vocational education.
381. Developing Adult and Vocational Education (3) I, II, S

Needs assessment, task analysis, formulation of objectives, lesson plans, instructional techniques, and evaluation in adult and vocational settings.
382. Directed Teaching (2-4) Cr/NC I, II, S

Prerequisite: Administration, Rehabilitation and Postsecondary Education 380, 381, or 565.

Systematic observation, participation, and teaching under supervision in an occupational subject matter area. Application to take this course must be made in preceding semester.
397. Problems in Education (Credit to be arranged)
(Offered only in Extension)
Prerequisite: Consent of instructor.
Class study of specially selected problems in education. Does not apply to pattern requirements for credentials. Credit earned in this course not applicable to a bachelor's degree.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## Administration, Rehabilitation and Postsecondary Education

## 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)

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.
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.
596. Topics in Administration, Rehabilitation and Postsecondary Education (1-3)
Selected problems in administration, rehabilitation and postsecondary education. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to Bulletin of the Graduate Division.

# Aerospace Engineering and Engineering Mechanics 

OFFICE: Engineering 308
TELEPHONE: (619) 594-6074
EMAIL: ae@engineering.sdsu.edu

In the College of Engineering

The undergraduate degree in Aerospace Engineering is accredited by the Accreditation Board for Engineering and Technology, Inc.

## Faculty

Emeritus: Conly, Dharmarajan, Faulkner, Shutts, Wang Chair: Katz
Professors: Katz, Narang, Nosseir, Pierucci, Plotkin
Assistant Professor: Venkataraman

## Offered by the Department

Doctor of Philosophy degree in engineering sciences/applied mechanics.
Master of Science degree in aerospace engineering.
Major in aerospace engineering with the B.S. degree.

## Transfer Credit

No credit will be given for upper division engineering coursework taken at an institution having an engineering program which has not been accredited by the Accreditation Board for Engineering and Technology, Inc., unless the student successfully completes the first 12 units of engineering work attempted at this university. At that time, and upon recommendation of the department, credit will be given for the unaccredited work.

## General Education

Students will complete a minimum of 50 units in General Education, to include a minimum of nine upper division units taken after attaining junior class standing. 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, III, and IV combined (Foundations, American Institutions, and Explorations).
I. Communication and Critical Thinking: 9 units

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)
II. Foundations: 29 units
A. Natural Sciences and Quantitative Reasoning (17 units):
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.
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

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.

## Aerospace Engineering Major

With the B.S. Degree (Major Code: 09021)
Students majoring in aerospace engineering must include in their program a sequence of fundamental courses. In addition, the students have the opportunity to satisfy their particular areas of interest by selecting a pattern of study indicated in the sequence below. This pattern includes typical aerospace engineering topics, such as aerospace vehicle design, performance, structural analysis, aerodynamics, and propulsion. The students' choice of elective courses and area of specialization must be made in consultation with their adviser and documented by the filing of an approved master plan during the first semester of their junior year.

Upper Division Writing Requirement. Departmental screening in Aerospace Engineering 303, or passing the University Writing Examination, or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

NOTE: See following page for recommended sequence of courses for the major in aerospace engineering.


Other electives may be substituted with permission of the adviser and department chair.

## Courses

## LOWER DIVISION COURSE IN AEROSPACE ENGINEERING (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)

## 301. Low Speed Aerodynamics (3)

Prerequisite: Credit or concurrent registration in Engineering Mechanics 340.

Subsonic flow, airfoil and wing theory, experimental characteristics of wing sections, high lift devices.

## 302. High Speed Aerodynamics (3)

Prerequisites: Aerospace Engineering 301 and Mechanical Engineering 352.

Supersonic flow, two- and three-dimensional compressible flow, wings in compressible flow, two- and three-dimensional method of characteristics, transonic flow.

## 303. Experimental Aerodynamics (2) <br> (2)

One lecture and three hours of laboratory.
Prerequisites: Engineering Mechanics 341 and credit or concurrent registration in Aerospace Engineering 301. Proof of completion of prerequisite required for the following: To be eligible for the departmental upper division writing test in this class, students must have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. Test scores or verification of exemption; copy of transcript or enrollment confirmation.

Operating characteristics of subsonic and supersonic wind tunnels. Aerodynamic characteristics of wings and bodies. Flow visualization techniques. Force, moment and pressure distribution measurement. Use of hot-wire anemometer and schlieren equipment.

## 310. Aerospace Structural Analysis <br> (3)

Prerequisite: Civil Engineering 301.
Methods of static structural analysis of problems encountered in flight of aerospace vehicles.
320. Aerospace Flight Mechanics (3)

Prerequisites: Engineering Mechanics 220 and Engineering 280.
Two-body orbital mechanics including geocentric orbits and interplanetary transfers.
403. Aerospace Engineering Senior Project
(3)

One lecture and six hours of laboratory.
Prerequisites: Aerospace Engineering 302, 303, Engineering Mechanics 340.

Design and build an aerospace project, conduct experimental measurements, perform analyses of measured data.

## 410. Aerospace Structural Dynamics (3)

Prerequisites: Credit or concurrent registration in Aerospace Engineering 310.

Methods of structural dynamic analysis of problems encountered in aerospace vehicles.

## 430. Aircraft Propulsion Systems (3)

Prerequisite: Aerospace Engineering 302 or Mechanical Engineering 450.

Theory and performance characteristics of aircraft propulsion systems including reciprocating engines, turbojets, ramjets, etc
440. Aircraft Stability and Control I (3)

Prerequisite: Aerospace Engineering 303.
Static stability and control, general equations of unsteady motion, stability derivatives, stability of uncontrolled motion, response of aircraft to actuation of controls.

## 460A. Aerospace Engineering Applications

One lecture and five hours of design activity.
Prerequisites: Aerospace Engineering 302, 303 and 310.
Student projects in aerospace design.
460B. Aerospace Engineering Applications (2) II
Six hours of laboratory.
Prerequisite: Aerospace Engineering 460A.
Student projects in aerospace design.
496. Advanced Aerospace Engineering Topics (1-3) I, II

Prerequisite: Consent of instructor.
Modern developments in engineering. See Class Schedule for specific content. Maximum credit six units for any combination of Aerospace Engineering 496 and 499.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units for any combination of Aerospace Engineering 496 and 499.

## UPPER DIVISION COURSES IN AEROSPACE ENGINEERING (Also Acceptable for Advanced Degrees)

520. Intermediate Aerospace Flight Mechanics (3)

Prerequisite: Aerospace Engineering 320.
Rigid-body dynamics with applications in spacecraft attitude dynamics.
530. Rocket and Space Propulsion (3)

Prerequisite: Aerospace Engineering 430.
Equilibrium combustion thermodynamics. Performance of rocket propelled vehicles. Rocket propulsion fundamentals. Topics in chemical (solid and liquid) and electrical propulsion systems.
540. Aircraft Stability and Control II (3)

Prerequisite: Aerospace Engineering 440.
Dynamic stability and control of rigid aircraft; general equations of unsteady motion, stability derivatives, perturbed state thrust forces and moment, special problems in dynamic stability and response.

## 550. Viscous Flow (3)

Prerequisites: Credit or concurrent registration in Engineering Mechanics 340, and Engineering 510.

Kinematics of fluid motion. Conservation of mass, momentum, and energy. Navier-Stokes equations; exact solutions. Boundary layer approximations, turbulent flow.
596. Advanced Aerospace Engineering Topics (3)

Prerequisite: Consent of instructor.
Modern developments in aerospace engineering. See Class Schedule for specific content. Maximum credit of six units for any combination of Aerospace Engineering or Engineering Mechanics 496, 499, and 596 applicable to a bachelor's degree. Maximum combined credit of six units of Aerospace Engineering or Engineering Mechanics 596 and 696 applicable to a 30-unit master's degree.

## LOWER DIVISION COURSES IN ENGINEERING MECHANICS

(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.

## 202. Mechanics for Electrical Engineers (3) I, II

Prerequisites: Physics 195 and credit or concurrent registration in Mathematics 151.

Essentials of mechanics of particles and rigid bodies, for engineering applications. Emphasis on particle dynamics. Intended for Electrical Engineering majors. Not open to students with credit in Engineering Mechanics 200 or 220.

## 220. Dynamics (3) I, II

Prerequisite: Engineering Mechanics 200 with a grade of C or better. 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.

## 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)

340. Fluid Mechanics (3) I, II

Prerequisites: Engineering Mechanics 220 or 202; and credit or concurrent registration in Engineering 280.

Fluid statics. Laminar and turbulent flow of liquids and gases in pipes, nozzles, and channels. Dimensional analysis and modeling. Drag forces on moving or immersed objects.
341. Fluid Mechanics Laboratory (1) I, II

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Engineering Mechanics 340.

Flow measuring devices. Experimental applications of continuity, Bernoulli and momentum equations. Model studies. Pipe and channel flows. Flow visualization techniques. Operating characteristics of wind tunnel and water table.
496. Advanced Engineering Mechanics Topics (1-3) I, II

Prerequisite: Consent of instructor.
Modern developments in engineering mechanics. See Class Schedule for specific content. Maximum credit six units for any combination of Engineering Mechanics 496, 499, and 596.
499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units for any combination of Engineering Mechanics 496, 499, and 596.

## UPPER DIVISION COURSES IN ENGINEERING MECHANICS <br> (Also Acceptable for Advanced Degrees)

510. Finite Element Methods in Aerospace Structures (3)

Prerequisite: Aerospace Engineering 410.
Static and dynamic analysis of aerospace structures utilizing finite element methods.
530. Composite Structural Analysis (3)

Prerequisites: Engineering 280 and Civil Engineering 301.
Strength of composite materials; lamination theory; strength analysis of laminates; bending, buckling, and vibration of composite plates.

## 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 260.

Prerequisites for electrical engineering majors: E E 330, E M 202, and M E 260.

Prerequisites for mechanical engineering majors: E E 303, E M 220, and M E 260.
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.

## 596. Advanced Engineering Mechanics Topics (1-3)

Prerequisite: Consent of instructor.
Modern developments in engineering mechanics. See Class Schedule for specific content. Maximum credit of six units for any combination of Engineering Mechanics 496, 499, and 596 applicable to a bachelor's degree. Maximum combined credit of six units of Engineering Mechanics 596 and 696 applicable to a 30-unit master's degree.

## GRADUATE COURSES IN AEROSPACE ENGINEERING AND ENGINEERING MECHANICS Refer to Bulletin of the Graduate Division.

OFFICE: Exercise and Nutritional Sciences 385 TELEPHONE: (619) 594-5545

# Aerospace Studies 

In the College of Professional Studies and Fine Arts

## Faculty

Chair: Rankin
Professor: Rankin
Assistant Professors: Birch, Dumont, E., Dumont, J.

## Offered by the Department

AFROTC curriculum.
Minor in aerospace studies.

## AFROTC Curriculum

The department offers a four- or two-year Air Force Reserve Officers Training Corps program designed to develop officers who have broad understanding and high growth potential. For qualified students, two, 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-\$350 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 five-week Field Training camp is required for all students during the summer between the sophomore and junior years. The four-week camp is for students who have completed all AFROTC lower division courses with a grade of "C" or better in each course and for those with prior military service. Field training emphasizes military orientation for the junior officer and aircraft and aircrew familiarization. Cadets receive physical training and participate in competitive sports. They observe selected Air Force units perform everyday operations, and they are trained in drill and ceremonies, preparation for inspections, and the use of weapons. Upon completion of the AFROTC program and all requirements for a bachelor's degree, cadets are commissioned second lieutenants in the Air Force and serve a minimum of four years active duty. Graduates go on active duty in a specialty consistent with their academic major, their desires, and existing Air Force needs. Graduates may request a delay from entry on active duty to continue their education or may apply for Air Force sponsored graduate study to begin immediately upon entry on active duty.

## Applying for the Program

SDSU students enroll in aerospace classes by signing up for courses in the same manner as other university classes. There is no advance application needed for the freshman or sophomore (AS 100/ 200) classes. However, an orientation program, held just prior to the start of 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 and any student may 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 (As)

## LOWER DIVISION COURSES

## 91A-91B. Leadership Laboratory (1-1) Cr/NC

One hour and forty-five minutes of activity per unit.
Prerequisites for AFROTC cadets: Concurrent registration in Aerospace Studies 100A for Aerospace Studies 91A; concurrent registration in Aerospace Studies 100B for Aerospace Studies 91B.

Designed to prepare junior cadets for positions as leaders and managers of the cadet corps and a commission in the US Air Force. Application of principles of motivation, time management, organizational behavior, and participative group management in solving problems. Leadership laboratory is open to students who are members of the Reserve Officer Training Corps or who are eligible to pursue a commission as determined by the Professor of Aerospace Studies. Credit earned in this course is not applicable to a bachelor's degree.

## 92A-92B. Leadership Laboratory (1-1) Cr/NC

One hour and forty-five minutes of activity per unit.
Prerequisites for AFROTC cadets: Concurrent registration in Aerospace Studies 200A for Aerospace Studies 92A; concurrent registration in Aerospace Studies 200B for Aerospace Studies 92B.

Designed to prepare junior cadets for positions as leaders and managers of the cadet corps and a commission in the US Air Force. Application of principles of motivation, time management, organizational behavior, and participative group management in solving problems. Leadership laboratory is open to students who are members of the Reserve Officer Training Corps or who are eligible to pursue a commission as determined by the Professor of Aerospace Studies. Credit earned in this course is not applicable to a bachelor's degree.

## 93A-93B. Leadership Laboratory (1-1) Cr/NC

One hour and forty-five minutes of activity per unit.
Prerequisite: Concurrent registration in Aerospace Studies 300A for Aerospace Studies 93A; concurrent registration in Aerospace Studies 300B for Aerospace Studies 93B.

Demonstration laboratory designed to develop leadership and management skills, problem-solving skills, and exercise group planning, organizing and coordinating activities. Leadership laboratory is open to students who are members of the Reserve Officer Training Corps or who are eligible to pursue a commission as determined by the Professor of Aerospace Studies. Credit earned in this course is not applicable to a bachelor's degree.

94A-94B. Leadership Laboratory (1-1) Cr/NC
One hour and forty-five minutes of activity per unit.
Prerequisite: Concurrent registration in Aerospace Studies 400A for Aerospace Studies 94A; concurrent registration in Aerospace Studies 400B for Aerospace Studies 94B.

Demonstration laboratory designed to develop leadership and management skills, problem-solving skills, and exercise group planning, organizing and coordinating activities. Leadership laboratory is open to students who are members of the Reserve Officer Training Corps or who are eligible to pursue a commission as determined by the Professor of Aerospace Studies. Credit earned in this course is not applicable to a bachelor's degree.

## 100A-100B. Foundations of the United States Air Force (1-1)

Meets one and one-half hours per week.
Prerequisite for AFROTC cadets: Concurrent registration in Aerospace Studies 91A for Aerospace Studies 100A; concurrent registration in Aerospace Studies 91B for Aerospace Studies 100B.

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.

## 200A-200B. Evolution of USAF Air and Space Power (1-1) <br> Meets one and one-half hours per week.

Prerequisite for AFROTC cadets: Concurrent registration in Aerospace Studies 92A for Aerospace Studies 200A; concurrent registration in Aerospace Studies 92B for Aerospace Studies 200B.

Study of air power and preparation for field training. Techniques for improving communication, discussion of Air Force heritage, leadership basics, Air Force quality, ethics, values, problem solving, and teamwork.

## 233. Field Training Unit (2-3) Cr/NC I

Required for advanced cadets, military orientation and flight familiarization. Credit granted for four or five-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)

## 300A-300B. Air Force Leadership Studies (3-3)

Air Force leadership and management principles. Quality management, process improvement, subordinate leadership, ethics, standards of conduct, and officer values. Improving writing and briefing skills.

## 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.
499. Special Study (1-3) I, II

Prerequisite: Consent of Aerospace Studies department chair. Individual study. Maximum credit six units.

# Africana Studies 

OFFICE: Adams Humanities 3131
TELEPHONE: (619) 594-6531

## In the College of Arts and Letters

## Faculty

Emeritus: Chambers, Kornweibel
Chair: Weber
Associate Professors: Cornwell, Toombs, Weber
Assistant Professors: Alkebulan, Nesbitt

## Offered by the Department

Major in Afro-American studies with the B.A. degree in liberal arts and sciences.
Minor in Afro-American studies.

## The Major

Africana studies offers a broad, interdisciplinary program. The curriculum is designed to study a variety of subjects pertaining to the Africana experience. It is concerned with strengthening links between the needs of black students and the black community, and developing frameworks for social change and the struggle for black dignity. It seeks, in short, to provide a total educational experience of the Africana culture. The courses offered in Africana studies are available to anyone who is interested.

The major provides excellent preparation for the fields of law, government, foreign service, business administration, research, consulting, librarianship, counseling, program development, program design, program analysis, urbanology, and writing, to name a few, as well as the more traditional Africana studies profession of teaching.

## Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

## Afro-American Studies Major

With the B.A. Degree in Liberal Arts and Sciences

## (Major Code: 22111)

All candidates for the degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in Africana studies courses can apply to the degree.

A minor is not required with this major.
Preparation for the Major. Africana Studies 101A, 101B, 170A, 270; and three units selected from Africana Studies 170B, 240, 250 or 260. (15 units)

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 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, 451, 452, 453

Humanities: Africana Studies 362, 363, 365A, 365B, 385, 460, 461, 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)

## LOWER DIVISION COURSES

## 101A. Introduction to Africana Studies: Social and Behavioral Sciences (3)

Interdisciplinary introduction of African American thought and behavior. Subject areas include social systems, economic empowerment, self development, family dynamics, use of power, cognitive styles, interethnic communication and international relations. Review of relevant literature in social and behavioral sciences.

## 101B. Introduction to Africana Studies: Humanities (3)

Interdisciplinary introduction to African American history, literature, other arts and religion. Subject areas include methodology and theoretical perspectives of Africana studies.

## 120. Composition (3)

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 97A or 97B, or notification from the Department of Rhetoric and Writing Studies.

Designed to develop and enhance composition and reading skills. Focus on writing skills that contribute to academic growth and development. Not open to students with credit in Chicana and Chicano Studies 111B or Linguistics 100 or Rhetoric and Writing Studies 100 or higher-numbered composition course.

## 140. Oral Communication (3) I, II

Practice in speaking, critical listening, reasoning and organizing. Theory and techniques of communications used to evaluate the effect they have on the lives of Blacks and others. Not open to students with credit in Chicana and Chicano Studies 111A or Communication 103.

## 170A-170B. Afro-American History (3-3) I, II

American history from a Black perspective. These courses satisfy the graduation requirement in American Institutions.

## 200. Intermediate Expository Writing and Research Fundamentals (3)

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements; and Africana Studies 120 or Chicana and Chicano Studies 111B or Linguistics 100 or Rhetoric and Writing Studies 100. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

Development of intermediate expository writing skills and application of practical research principles. Not open to students with credit in Chicana and Chicano Studies 200, Linguistics 200, or Rhetoric and Writing Studies 200.

## 240. Africana Intellectual Thought (3)

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.

## 250. Psychology of Blackness (3)

Facts, principles, and concepts which are basic to understanding human behavior. An analysis of the psychological motivations and behavioral responses of and toward Afro-Americans.

## 260. Africana Literary Study (3)

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 non-specialist.

## 270. African Foundations of Africana Studies (3)

African foundations of Africana studies from contemporary issues to forces that shaped Africa and its Diaspora.

## 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)

## 320. Political Economy of Race and Class (3)

Prerequisite: Africana Studies 101A or completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Political economy of urban growth, development, and redevelopment examined in historical and contemporary contexts. Focus on race and class inequality and conflict; effectiveness of public and private sector decisions and programs; evolution of African American urban poor and their communities.

## 321. Black Political Participation in America (3)

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.

## 322. African American Political Thought (3)

Prerequisite: Africana Studies 101A or completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Political and social thought underlying principles, goals, strategies developed by African Americans in struggle for social development and human rights. Focus on twentieth century thought.

## 325. Public Policy and Afro-American Community (3) II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Impact of public policy on Afro-American community: theory and practice of policy formulation, implementation, evaluation, and modification for specific problems in Afro-American community; roles of governmental officials, administrative arrangements, organizational processes, and community groups in policy making.

## 330. Black Child Development (3) II

Attitudes, needs and problems of the Afro-American child with emphasis on new approaches and insights into the development of positive changes for the child's growth and development.

## 331. The Black Family (3) I

Structure and functions of the Black family in contemporary American society.

## 332. Black Women: Myth and Reality (3)

Prerequisites: Africana Studies 101A or 101B.
Images of Black women in America and how those images have been distorted.
341. Cultural Patterns and African American Identity (3)

Prerequisites: Africana Studies 101A or completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Impact of social institutions on African American identity and cultural patterns.

## 360. Communications and Community Action (3)

Prerequisite: Africana Studies 140 (field assignments are a major part of this course).

Application of the basic theories of communication through field projects. Study of the communication problems that exist between sociopolitical groups and the media.

## 362. Rhetoric of Black America (3)

Prerequisite: Three units 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.

## 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.

## 365A. African American Literature to 1900 (3)

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.

## 365B. African American Literature After 1900 (3)

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.

## 380. Blacks in the American Justice System (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Into interpretation and application of constitutional principles and judicial decisions to political and social problems faced by Afro-Americans.

## 385. African American Music (3)

Prerequisite: Africana Studies 101B or completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

African American music from its African roots to present. Consideration of musical styles, events, significant contributors as well as role of sociocultural values in development of music.
420. Afro-Americans and the Politics of Urban Education (3)

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.

## 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.

## 445. Ethnicity and Social Psychology (3)

Prerequisites: Africana Studies 101A or 250. Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Analysis of major social psychological theories specifically focusing on how these theories relate to minority attitude/value formation and group behavior. Strategies for resolving social issues.

## 448. Black and Non-Black Interpersonal Relations (3)

Cognitive and experiential examination of contemporary issues around Black and non-Black interpersonal relations. Authenticity in relationships, interracial trust, personal development, conflict resolution, and proactive belief systems. Central aim to assist Blacks and non-Blacks to facilitate communication.

## 451. Black Consumer Psychology (3)

Prerequisite: Africana Studies 250.
Attitude values and decision making of Black people as consumers. Laws and techniques of manipulating consumers.

## 452. Race Relations Strategies (3)

Prerequisite: Africana Studies 101A or 250.
Systematic inquiry into contemporary strategies and systems employed to ease racial tensions. Trends and approaches in military, religious, economic, educational, and other social institutions examined, focusing on those that offer most promise in terms of facilitating racial harmony.
453. Issues in Mental Health: A Multicultural Perspective
(3)

Prerequisite: Africana Studies 250.
Examination of multicultural mental health issues. Institutionalization, treatment, social policy funding, prevention, insurance, and community programs will be covered. Relevant research literature will be examined.
460. Black Images in Western Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Study of how the image of the Black has been portrayed in Western (white) literature and the attitudes and images of non-Black writers towards Blacks.
461. Studies in African American Literature

Prerequisite: Africana Studies 101B or 260.
Focused studies in African American literature. Analysis of themes, techniques, etc., in fiction, poetry and/or drama.

## 462. The Harlem Renaissance (3)

Black literature of the 1920s from literary, historical, sociological and cultural perspectives.

## 463. Black Literatures of the World (3)

Prerequisite: 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.
464. Caribbean Literature (3)

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).
465. Africa in Literature and Film (3
(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.)

## 470. Comparative History: Afro-American and African Heritage (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Conceptual framework of African history and a comparative study of Afro-American institutions.
471A. Black History, 1492-1877
(3) I

Afro-Americanization and African survivals in the U.S.; origins and development of slavery; growth of free Black communities; antislavery movements and Black nationalism; slavery's end and dawn of freedom.
471B. Twentieth Century Black History (3) II
History of social movements and institutions from 1890 to the present. Focus on both leadership and life of the masses.

## 472. Comparative Slavery (3)

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.
480. History of Afro-American Jazz (3)

Prerequisite: Africana Studies 101B.
Historical development of jazz from its beginnings to the present, based on the ability to identify people, discuss musical styles and events, and to relate these factors to the life of the times.

## 485. Blacks in the Arts (3)

Prerequisite: Africana Studies 101B.
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.
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.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

# American Indian Studies 

In the College of Arts and Letters

## Faculty

Chair: Parker
Professors: Kilpatrick, Parker
Assistant Professor: Field
Adjunct: Cayleff, Colston, Cooper, Cox, Johnson, Shipek, 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)

## LOWER DIVISION COURSES

## 110. American Indian Heritage (3) I, II

Major American Indian themes, beliefs, and practices and their impact on Western civilization through institutions, art, literature, philosophy, and religion.
296. ExperimentalTopics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES (Intended for Undergraduates)

## 300. American Indian Oral Literature (3) 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.

## 303. American Indian Women in American Society (3)

Historical and contemporary analysis of the role of Indian women in both Indian and dominant society.

## 320. American Indians in Contemporary Society (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Sociological understanding of the American Indian groups in contemporary society with emphasis on the relationship to dominant society and why the focus has been on Indians as social problems.

## 400. The American Indian Political Experience

(3)

Social and political response to dominant group policies by the American Indian as compared to other minority groups.
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.
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.

## 430. American Indian Poetry and Fiction <br> (3) II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Contemporary American Indian poetry and fiction explored in works of Welch, Ortiz, Momaday, Silko, Deloria, Allen, Erdich, and others.

## 435. Indians Through Film and Television (3)

Images of Indians in film and television. Impact of movies and television on popular concepts of Indians. Films viewed in class.

## 440. American Indian History (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Historical analysis of Indian-White contact. Emphasis on the impact of historical events upon the various cultures.

## 460. American Indian Languages (3)

Prerequisites: American Indian Studies 110 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Structures of American Indian languages addressed. 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 also addressed.
470. Roots of Indian Tradition (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Spirits, prophesies, and renewals of the Indian way compared through symbols and ceremony. Religions will be surveyed as they have been influenced by foreign elements and philosophies. Influences on values and tribalism as reflected through symbols and other measures.
480. Issues in American Indian Education (3)

Prerequisites: American Indian Studies 110 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

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.
496. Topics in American Indian Studies

An undergraduate seminar. See Class Schedule for specific content. Maximum credit six units. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
499. Special Study (1-4)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

# American Studies 

In the College of Arts and Letters

## Faculty

The American studies program is administered through the American Studies Committee. Faculty assigned to teach courses in American studies are drawn from departments in the College of Arts and Letters.

## Chair:

Adviser: Gregory (English)
Committee: Colquitt (English), Donahue (Linguistics),
Ford (Geography), Gregory (English), Griswold (English), Koolish (English), Kornfeld (History), McCaffery (English and Comparative Literature), Strom (Teacher Education)

## Offered by American Studies

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

No new students are being admitted to the American Studies program during the 2003-2004 academic year. Contact the American Studies adviser, Dr. Sinda J. Gregory, (619) 594-6421, for additional information.

## The Major

American studies is an interdisciplinary program designed to bridge the division of knowledge into discrete disciplines. Each of the four program clusters combines American studies core courses, which relate materials and methods from various disciplines, with upper division courses from several disciplines. The courses are selected to focus on and bring into interrelation one group of American people, one social or cultural process, one place and one period.

The special integrating work in the student's major program is a series of special studies under the direction of members of the American studies faculty in which the student produces a paper or project interrelating the four focuses of his or her studies. The paper or project must make use of two or more disciplines' analyses of the same material. Because American studies finds its center in the concept of culture, the paper or project must deal at least in part with the cultural connections among the four subjects of focus.

With the approval of the American studies adviser, the student may design a program cluster comparable in format to those listed in this catalog but tailored to his or her individual interests.

The minor in American studies is open to all students and is of special interest to international students. The coursework is intended to provide a broad perspective of the American culture - the heritage, the ideas and dreams, and the failures as well as accomplishments.

The flexibility of this interdisciplinary major allows graduates to enter a broad range of career areas, including journalism, law, law enforcement, environmental planning, teaching, archival work, museum curatorship, international business, librarianship or government service. Competencies gained by the American studies major provide a sound basis for entering graduate study in a variety of areas. Many universities have graduate programs in American studies. Graduate work may be required for entrance into a specific career field.

Business and teaching professions in foreign countries welcome American studies majors who can help them understand the way business and social life is conducted in the United States.

## Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

## American Studies Major

## With the B.A. Degree in Liberal Arts and Sciences (Major Code: 03131)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.
Preparation for the Major. Anthropology 102; English 250A*250B* (three or six units); History 109, 110 (three or six units). (12 units)

[^10]Students should note that a number of the upper division required and recommended courses listed below have lower division prerequisites, but these prerequisites do not constitute requirements per se for the completion of the major.

Foreign Language Requirement. Competency (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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. History 450W, English $508 \mathrm{~W}, 581 \mathrm{~W}$, or Rhetoric and Writing Studies 500 W with a grade of C (2.0) or better.

Major. A minimum of 33 upper division units to include American Studies 499, 580; and nine courses from one of the following clusters or a specially designed cluster.

In the specially designed cluster, the student will normally take three courses in one area and two courses in each of three other areas. However, the student must take at least one course in each area. The student may take no more than three courses in one discipline on the major program. The student must file with the Office of Advising and Evaluations a master plan approved by the adviser for the American studies curriculum.

## American Communication

## People: Decision Makers

History 496; Management 356; Political Science 335, 422, 436, 531; Public Administration 520; Sociology 531; Women’s Studies 530.

## Process: Communications

No more than one course in each discipline.
Africana Studies 360, 362, 461, 480; American Indian Studies 430; Art 558; Chicana and Chicano Studies 335; Communication 371, 408, 500, 502; English 524, 525; Music 351D; Political Science 426; Psychology 340; Sociology 456.

## Place: United States

Geography 321; History 535
Period: Nuclear Age
Two of the following:
English 525; History 536; Natural Science 333; Women's Studies

## 530

Special Study: American Studies 499.

## Cultural Institutions and Artifacts

## People: The Family

Africana Studies 331; Chicana and Chicano Studies 320; Sociol ogy 522.

## Process: Material Culture

Anthropology 302; Art 347, 550; English 526 (when offered as American Literature and American Art); Geography 354; Natural Science 333.

## Place: The Southwest

No more than one course in each discipline.
Chicana and Chicano Studies 320, 335, 350A, 350B, 376; History

## 444, 445.

Period: Colonial
No more than one course in each discipline.
Anthropology 446; History 530.
Special Study: American Studies 499.

## Cultural Pluralism

People: Ethnic Community
Sociology 355 and one of the following: Africana Studies 471B; American Indian Studies 440; Anthropology 446; Chicana and Chicano Studies 320 or 350B.
Process: Development of Identity
Africana Studies 362 or 461; Chicana and Chicano Studies 335;
Music 351; Political Science 531; Sociology 430 or 457; Women's
Studies 352 or 553 (when American in content).

## Place: The City

Chicana and Chicano Studies 303; Economics 458; Geography 354; Political Science 422; Public Administration 512.
Period: 1840 to the Present
No more than one course in each discipline.
English 523, 524, 525, 527, 528 (when appropriate); History 445; Women's Studies 341B or 530.
Special Study: American Studies 499.

## Majority American Goals and Values

## People: The Middle Class

Art 560; Political Science 531; Sociology 531; Women’s Studies 530.
Process: Tradition and Change in the Evolution of American Goals and Values

No more than one course in each discipline.
Anthropology 444; English 525; History 435, 545A, 545B; Management 356, 456; Political Science 334, 335, 346, 348; Sociology 433, 456, 457, 537.

## Place: United States

English 523, 524, 525, 527; Geography 370; History 540; Political Science 305.

## Period: Twentieth Century

Economics 338; English 525; History 410, 535, 536; Management 356; Music 351D; Women's Studies 341B.
Special Study: American Studies 499.

## American Studies Minor

The minor in American studies consists of a minimum of 15 units to include six units selected from History 547A-547B or 548A-548B; and nine units selected from the courses listed below-six units from one grouping and three from the other, with no more than six units from any one department's or program's offerings:

Humanities: American Studies 580; Art 560; English 522, 523.
Social Sciences: Anthropology 444; Economics 338; Geography 354; Political Science 305; Sociology 433.

With the consent of the American studies adviser, six units in courses not listed here may be included in the student's program. Courses in the minor may not be counted towards the major but may be used to satisfy preparation for the major and general education requirements. A minimum of six upper division units must be completed in residence at San Diego State University. In designing their American studies minor program, students may not include courses drawn from their major department.

## Courses (am st)

## LOWER DIVISION COURSE

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 499. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study in interdisciplinary humanities and social sciences work. Maximum credit six units.

UPPER DIVISION COURSE
(Also Acceptable for Advanced Degrees)

## 580. Topics in American Studies (1-3) I, II

Topics dealing with cultural images and myths, social protest, folklore; themes focusing upon fear, alienation and nationalism; problems around racism, minorities and counter-cultures. See Class Schedule for specific content. May be repeated once with new content; and with the approval of the adviser, more than once by American studies majors. Maximum credit six units applicable to a master's degree in American studies.

## Anthropology

In the College of Arts and Letters
OFFICE: Storm Hall 143B
TELEPHONE: (619) 594-5527
FAX: (619) 594-1150 / E-MAIL: anthro@mail.sdsu.edu
WEB SITE: www-rohan.sdsu.edu/~anthro/

## Faculty

Emeritus: Goldkind, Himes, Moore, Pendleton, Rohrl, Rollefson, Watson, Whitney
Interim Chair: Leach
Professors: Ball, Greenfeld, Henry, Leach, Lippold
Associate Professor: Gamble
Assistant Professors: Mallios, Pérez

## 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.

## Anthropology Major

With the B.A. Degree in Liberal Arts and Sciences

## (Major Code: 22021)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in anthropology courses can apply to the degree.

A minor is not required with this major.
Preparation for the Major. Anthropology 101, 102. (6 units)
Foreign Language Requirement. Competency (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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or one of the approved writing courses with a grade of C (2.0) or better.

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, $442,444,445,446,448,450,452,453,457,471,472,499,582$.

Methods: Six units selected from Anthropology 312, 410, 432, 439, 495, 499, 500, 505, 520, 531, 560, 561, 580, 583.

Theory/Topical: Nine units selected from Anthropology 402, 406, 422, 424, 430, 483, 499, 501, 503, 508, 529, 535, 583.

The student will file with the Office of Advising and Evaluations a master plan approved by the adviser for the anthropology curriculum.

## 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, $444,445,446,448,450,452,453,457,471,472,499,582$.

Methods: Three units selected from Anthropology 301, 302, 303, 304, 312, 410, 432, 439, 495, 499, 500, 505, 560, 561, 580, 583.

Theory/Topical: Three units selected from Anthropology 402, 406, 422, 424, 430, 483, 499, 501, 503, 508, 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)

## LOWER DIVISION COURSES

## 101. Human Biocultural Origins $\quad$ (3) I, II (CAN ANTH 2)

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.

## 102. Introduction to Cultural Anthropology <br> (3) I, II (CAN ANTH 4)

May be taken before Anthropology 101.
Our relationship to our environment; types of preliterate society; systems of social organization, politics, economics, religion, and language.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

## 301. Principles of Physical Anthropology <br> (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.

## 302. Principles of Archaeology (3)

Two lectures and three hours of laboratory.
Prerequisite: Anthropology 101.
History, method, and theory of archaeological data acquisition and interpretation. Methods of data recovery and analysis suitable to resolution of historical and processual questions. Archaelogical examples from a worldwide sample of prehistoric and historic societies.

## 303. History of Ethnological Theory (3)

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.

## 304. Principles of Anthropological Linguistics (3)

Two lectures and three hours of laboratory.
Prerequisite: Anthropology 102.
The structural nature of language. How languages differ, change and influence each other. The language families of the world. The significance of language for human social life in a variety of cultures.

## 312. Archaeological Field Techniques (3)

Six hours of activity.
Prerequisite: Anthropology 302.
Archaeological excavation of significant sites in San Diego. Techniques of excavation, recording, and surveying.

## 349. Roots of Civilizations (3)

Prerequisite: Open only to upper division students who have completed the General Education requirement in Foundations II.C., Humanities.

Origins and major attributes common to civilizations. Form and function of fundamental characteristics in different civilizations. Examples taken from Africa, Asia, the Near East and the New World.
350. World Ethnography (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Cultural patterns of representative peoples. Industries, arts, social organization and supernaturalism considered with view to environmental adjustment, historical development and functional interrelation. Ethnological theories reviewed and applied in interpreting illustrative societies.

## 402. Dynamics of Biocultural Diversity (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Interaction of biology and culture in human populations. Relating genetic and cultural processes to the changes in human populations over time.

## 406. Nonhuman Primates (3)

Prerequisite: Anthropology 101.
Basic aspects of nonhuman primates, geographical distribution, ecology (habitat, diet), external and internal morphology, locomotion and social behavior, reproduction and development.

## 410. Language in Culture (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Survey of anthropological interests in the study of language and of linguistic interests in the sociocultural context of language.

## 422. Music and Culture (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.C., Humanities.

How the forms, functions and meanings of music vary crossculturally. Understanding a society's music historically, holistically and experientially, with emphasis on non-Western music. Universals of music and music use. Ethnological theories of music and music change.
424. The Supernatural in Cross-Cultural Perspective (3)

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.

## 430. Anthropology of Law and Dispute Processing (3)

Prerequisite: Anthropology 102, and completion of the General Education requirement in Foundations II.B, Social and Behavioral Sciences required for nonmajors.

Law, social control, and dispute processing studied in sociocultural context. Law in Western society compared with "law-ways" in a number of traditional or nonindustrialized cultures. Basic concepts and theories about law examined crossculturally.

## 432. Principles of Personality in Culture (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Principles related to the determinants of human behavior contained in culture. Studies of behavior crossculturally.

## 439. Cultural Comparisons Through Film (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Principles of cultural anthropology to include signs and proxemics, cultural prerequisites, kinship and social organization, and law and values. Feature and documentary films.

## 442. Cultures of South America (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Indian cultures in terms of origins, migration, relation to habitat, cultural variation and relevance to contemporary trends. Development of Inca civilization, the effects of the Spanish conquest and its aftermath.

## 444. American 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.

## 445. Ethnology of North America (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Native cultures and the role of environmental and historical factors in North America.

## 446. Native Peoples of the Southwest (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Indian cultures of the American Southwest in historic times; ecological adaptations, responses to white contact, adaptations to modern American life.

## 448. Cultures of Oceania (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

The aboriginal cultures and peoples of Australia, Melanesia, Micronesia, and Polynesia in prehistoric, historic, and modern times.

## 450. Cultures of India (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Indigenous peoples and cultures of India and contiguous areas of South Asia. The development of cultural traditions, social organization, and modern trends.
452. Japanese Society (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Culture and social organization of Japanese people. Traditional Japanese economic, social, political and religious institutions. Okinawa and overseas Japanese. Recent industrial and urban changes in modern Japan.

## 453. Cultures of Southeast Asia (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Anthropology 102.

Cultural anthropological study of cultures and societies of mainland (Myanmar, Thailand, Laos, Cambodia, Vietnam) and insular (Malaysia, Indonesia, Philippines) Southeast Asian nations. Traditional economic, social, political, and religious institutions. Recent changes in modern Southeast Asia.

## 457. Native Cultures of California (3)

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.

## 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.

## 472. Southwestern Prehistory (3)

Prerequisite: Anthropology 101 or 102.
Prehistoric Indian cultures in the American Southwest; ecological adaptations and outside cultural influences.

## 483. Health and Nutrition in Antiquity (3)

Prerequisite: Anthropology 101 or 102.
Health and disease patterns in human populations from the earliest times. Analysis of food resources, their impact on health and nutrition of prehistoric peoples.

## 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.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)
500. Primate Social Behavior (3)

Two lectures and three hours of laboratory.
Prerequisite: Anthropology 101.
Analysis of modes of primate socialization and development of social behavior with emphases on communication, group structure, aggression, and sex. Various methods of analysis and observation practiced utilizing primate collection at the San Diego Zoo.
501. Paleoanthropology (3)

Prerequisite: Anthropology 101. Recommended: Anthropology 301.
Fossil evidence for human evolution. Comparative and functional anatomy of fossil human and infrahuman primates; geochronology, paleoecology, and cultural associations; taxonomic implications.

## 503. Human Variation (3)

Prerequisite: Anthropology 101.
Morphological, physiological and genetic aspects of human variability. Significance of this diversity in the biological adaptations of human populations.

## 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.

## 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.

## 520. Ethnographic Field Methods <br> Prerequisite: Anthropology 102.

(3)

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.
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.

## 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.

## 535. Sex, Gender, Kinship, and Marriage (3)

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.

## 560. Advanced Archaeological Field Techniques <br> (3)

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.
561. Archaeological Laboratory Methods (3)

Two lectures and three hours of laboratory.
Prerequisite: Anthropology 560.
Application of palynology, paleontology and relevant technologies. Individual laboratory research project required.
580. Anthropological Data Analysis (3)

Two lectures and three hours of laboratory.
Prerequisites: Anthropology 101 or 102 and a statistics course. Recommended: Psychology 270 or Sociology 201.

Computer oriented data analysis class utilizing anthropological data sets. Special section of the SPSS computer workshop is required.

## 582. Regional Anthropology (3)

Prerequisite: Anthropology 102.
Study of societies in a major geographical region of the world such as Africa, the Arctic, East Asia, Europe, Latin America, the Middle East, North America, Oceania, or South Asia. See Class Schedule for specific content. May be repeated with new content. Maximum credit six units.
583. Topical Anthropology (3)

Prerequisite: Anthropology 102.
Study of a major subdiscipline such as political anthropology, economic anthropology, social anthropology, psychological anthropology, cultural ecology, applied anthropology, anthropological genetics, or environmental archaeology. See Class Schedule for specific content. May be repeated with new content. Maximum credit six units.

## GRADUATE COURSES

 Refer to Bulletin of the Graduate Division.$\qquad$ $=$

# Arabic 

# In the Department of Linguistics and Oriental Languages In the College of Arts and Letters 

## OFFICE: Business Administration 327

 TELEPHONE: (619) 594-5268FAX: (619) 594-4877
WEB SITE: www-rohan.sdsu.edu/dept/linguist/

## Faculty

Chair: Kaplan
Assistant Professor: Osman

## Offered by the Center for Islamic and Arabic Studies

Minor in Islamic and Arabic studies.

## 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.

## Foreign Language Requirement for the

## B.A. Degree in Liberal Arts and Sciences

Students electing the study of Arabic to fulfill the foreign 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 foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first two years of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.
2. The first three years of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who
have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.
3. Four years of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the foreign language requirement.

## Courses (ARAB)

No credit will be given for Arabic 101, 102, 201, 202 taken out of sequence.

## LOWER DIVISION COURSES

## 101. Elementary Arabic I (4)

Introduction to Arabic, with emphasis on language of everyday conversation. Focus on vocabulary and structures needed for elementary speaking, listening, and reading. Not open to students who have completed three years of high school Arabic unless the third course was completed five or more years ago. Not open to students with credit in Arabic 102, 201, or 202.

## 102. Elementary Arabic II

(4)

Prerequisite: Arabic 101.
Continuation of Arabic 101. Develops vocabulary and structures needed for elementary speaking, listening, and reading, with emphasis on the language of everyday conversation. Not open to students who have completed four years of high school Arabic unless the fourth course was completed five or more years ago. Not open to students with credit in Arabic 201 or 202.

## 201. Intermediate Arabic I <br> (4)

Prerequisite: Arabic 102.
Further development of speaking, reading, and writing skills, with emphasis on the language of everyday conversation.

## 202. Intermediate Arabic II

(4)

Prerequisite: Arabic 201.
Further development of speaking, listening, and reading skills, with emphasis on the language of everyday conversation.

## UPPER DIVISION COURSE (Intended for Undergraduates)

## 330. Arabic Culture (3)

Prerequisite: Upper division standing.
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.

OFFICE: Art 505
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WEB SITE: www.sdsu.edu/art

Accredited by the National Association of Schools of Art and 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.

## Faculty

Emeritus: Baker, K., Berg, Bigelow, Dirks, Dominguez, Dumlao, Esser, Fisch, Frick, Higgins, Hopkins, Hunter, Longenecker, Moaney, Orth, Perczel, Ray, Rogers, Tanzer, Wallace

## Director: Gordon

Professors: Austin, Baker, R., Burkett, Cooling, Cotten, Gordon, Hayakawa, Maruyama, Miller, Rigby, Roberts-Fields, Shirk, Yapelli Associate Professors: Berelowitz, Mansfield, Merritt, Nakamura, Nelson, Siprut
Assistant Professors: Johnson, Keely, Stringfellow
Lecturers: Atwater, Bendeler, Burgess, Carlson, Fobes, Hargreaves, Hersko, Hewitt, Hughes-Oelrich, Litrownik, Matzigkeit, Mulroney, Palese, Shigley, Trepchina

## 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 painting and printmaking.
Emphasis in sculpture.
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; 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 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 prepares the student for the areas of digital media, environmental graphics, art direction, visual design for the contemporary media of advertising, multimedia, or editorial illustration. 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 premajor or major code for selected program. To be admitted to the selected program, refer to the program description for specific impacted criteria.

## 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 (Premajor Code: 10030) (Major Code: 10031)

Impacted Program. The art history emphasis is designated as an impacted program and specific criteria are used to admit to the upper division major. Students enter the University under the premajor code (10030). To be admitted to the upper division art history major code (10031), students must meet the following criteria:
a. Complete with a grade of $C$ or higher: Art 258 and 259. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 30 transferable semester units;
c. Have a cumulative GPA and SDSU GPA of 2.50 or higher;
d. Students not meeting the minimum GPA may petition for special consideration;
e. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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. (18 units)

Foreign 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. 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."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 27 upper division units in art history to include Art 593; and 24 units selected from Art 371 and 557 through 577, and Philosophy 541.

## Emphasis in Studio Arts

## (Premajor Code: 10020) (Major Code: 10021)

Impacted Program. The studio arts emphasis is designated as an impacted program and specific criteria are used to admit to the upper division major. Students enter the University under the premajor code (10020). To be admitted to the upper division studio arts major code (10021), students must meet the following criteria:
a. Complete with a grade of $C$ or higher: Art 100, 101, 102, 103. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 30 transferable semester units;
c. Have a cumulative GPA and SDSU GPA of 2.50 or higher;
d. Students not meeting the minimum GPA may petition for special consideration;
e. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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. (33 units)

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 24 upper division units in art to include Art 403, 404, and 500; six units of art history; and nine units of art electives selected in consultation with an adviser.

## Art Major

## With the B.A. Degree in Applied Arts and Sciences

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

## Emphasis in Applied Design <br> (Premajor Code: 10020) (Major Code: 10021)

Impacted Program. The applied design emphasis is designated as an impacted program and specific criteria are used to admit to the upper division major. Students enter the University under the premajor code (10020). To be admitted to the upper division applied design major code (10021), students must meet the following criteria:
a. Complete with a grade of $C$ or higher: Art 100, 101, 102, 103. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 30 transferable semester units;
c. Have a cumulative GPA and SDSU GPA of 2.50 or higher;
d. Students not meeting the minimum GPA may petition for special consideration;
e. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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. ( 27 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 27 upper division units in art to include three units from each of the areas listed below, and six units of extended work in one of the areas; three units of art electives; and six units of art history.

Fiber: Art 334, 435, 436, 534, 535, 536
Metal: Art 331, 431, 432, 531, 532
Clay: Art 325, 326, 425, 525, 526
Wood: Art 323, 423, 523

## Emphasis in Graphic Design (Premajor Code: 10090) (Major Code: 10091)

Impacted Program. The graphic design emphasis is designated as an impacted program and specific criteria are used to admit to program courses beginning at the 200-level (i.e., Art 241 and 243). Students enter the University under the premajor code (10090). To be admitted to the graphic design major code (10091), students must meet the following criteria:
a. Complete with a grade of C or higher: Art 100, 101, 102, 103. These courses cannot be taken for credit/no credit (Cr/NC);
b. Clear the competency requirement in writing. Refer to Graduation Requirements section of this catalog for details;
c. Complete a minimum of 30 transferable semester units;
d. Have a cumulative GPA and SDSU GPA of 2.75 or higher;
e. Students not meeting the minimum GPA may petition for special consideration;
f. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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, 243, 258, 259; and six units of art electives (Art 240 recommended). ( 30 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 27 upper division units in art to include Art 341; six units of art history; 12 units selected from Art 344, 440, 441, $442,443,444,445$ A, 445B, 446, 540, 541, 543, 544, 545; and six units of art electives.

## Emphasis in Interior Design (Premajor Code: 10020) (Major Code: 02031)

Impacted Program. The interior design emphasis is designated as an impacted program and specific criteria are used to admit to the upper division major. Students enter the University under the premajor code (10020). To be admitted to the upper division interior design major code (02031), students must meet the following criteria:
a. Complete with a grade of C or higher: Art 100, 101, 102, 103. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 30 transferable semester units;
c. Have a cumulative GPA and SDSU GPA of 2.50 or higher;
d. Students not meeting the minimum GPA may petition for special consideration;
e. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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. (36 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 27 upper division units in art to include Art 352, 451, 452, 453, 552, 553; three units selected from Art 323, 325, 334, 436, 450, 547, 591; and six units of art history (Art 577 recommended).

## Emphasis in Painting and Printmaking

 (Premajor Code: 10020) (Major Code: 10021)Impacted Program. The painting and printmaking emphasis is designated as an impacted program and specific criteria are used to admit to the upper division major. Students enter the University under the premajor code (10020). To be admitted to the upper division painting and printmaking major code (10021), students must meet the following criteria
a. Complete with a grade of C or higher: Art 100, 101, 102, 103. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 30 transferable semester units;
c. Have a cumulative GPA and SDSU GPA of 2.50 or higher;
d. Students not meeting the minimum GPA may petition for special consideration;
e. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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. (27 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 24 upper division units in art to include six units of art history, and 18 units selected in consultation with the adviser from Art 403, 404, 406, 407, 408, 410, 411, 416, 500, 502, 503, 504, 506, 511.

## Emphasis in Sculpture

(Premajor Code: 10020) (Major Code: 10021)
Impacted Program. The sculpture emphasis is designated as an impacted program and specific criteria are used to admit to the upper division major. Students enter the University under the premajor code
(10020). To be admitted to the upper division sculpture major code (10021), students must meet the following criteria:
a. Complete with a grade of C or higher: Art 100, 101, 102, 103. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 30 transferable semester units;
c. Have a cumulative GPA and SDSU GPA of 2.50 or higher;
d. Students not meeting the minimum GPA may petition for special consideration;
e. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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, 234. (27 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 27 upper division units to include Art 416 (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 partial preparation for the Single Subject Teaching Credential With the B.A. Degree in Applied Arts and Sciences
(Premajor Code: 10020) (Major Code: 10021)

This program of study is currently under review by the California State Department of Education for compliance for the single subject waiver program in Art. Specific requirements are subject to change. At this time, students may choose to complete this course of study for the Art major, but also must take and pass the SSAT and PRAXIS examinations.

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 are used to admit to the upper division major. Students enter the University under the premajor code (10020). To be admitted to the upper division major code (10021), students must meet the following criteria:
a. Complete with a grade of C or higher: Art 100, 101, 102, 103. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 30 transferable semester units;
c. Have a cumulative GPA and SDSU GPA of 2.50 or higher;
d. Students not meeting the minimum GPA may petition for special consideration;
e. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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. (27 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 30 upper division units to include Art 385; Art 340 or 407; Art 559; three units of art history selected from Art 561, $562,564,565,568,569,570,573$ A, $573 B, 575$ or 577 ; and 18 units selected from two sequences below:

Sequence 1. Art 443, 444, 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, 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)

## LOWER DIVISION COURSES

## 100. Drawing and Composition (3) I, II (CAN ART 8)

Six hours.
The ordering of two-dimensional space through drawing.

## 101. Two Dimensional Design and Color (3) I, II (CAN ART 14)

Six hours.
Fundamentals of space and color design. Basic course used as a prerequisite for advanced work.
102. Drawing and Composition (3) I, II

Six hours.
Prerequisite: Art 100.
Line and value in drawing; emphasis on structure and proportion, sketching, gesture, and contour drawing.
103. Three Dimensional Design (3) I, II (CAN ART 16) Six hours.
Prerequisite: Art 101.
Introduction and investigation of design and theory, and practice in three dimensions.
148. Visual Presentation I (3) I, II

Six hours.
Prerequisite: Art 100.
Design drawing techniques including interior presentation drawings, interior detailing, architectural drafting, and lettering. Tools and materials used in the design professions.

## 157. Introduction to Art (3) I, II

An illustrated lecture course dealing with the meaning of art derived from an investigation of the principles of art. Designed to increase the understanding and appreciation of art.

## 158. Arts of Native America, Sub-Saharan Africa, and Oceania (3)

Arts of diverse societies of Native America, Sub-Saharan Africa, and Oceania in cultural context. Art forms from ancient to contemporary period.

## 203. Life Drawing <br> (3) I, II

Six hours.
Prerequisite: Art 102.
Drawing from the nude model. Maximum credit six units.

## 204. Painting (3) I, II (CAN ART 10)

Six hours.
Prerequisites: Art 101 and 102.
Pictorial composition and techniques of painting. Maximum credit six units.

## 210. Printmaking

(3) I, II (CAN ART 20)

## Six hours.

Prerequisites: Art 101, 102 and consent of instructor.
Introduction and exploration of basic printmaking media. Emphasis on aesthetic and technical processes in intaglio, lithography, relief and serigraphy.

## 216. Sculpture (3) I, II (CAN ART 12)

Six hours.
Prerequisite: Art 103.
Introduction and experimentation of basic sculpture ideas, methods and materials. Maximum credit six units.

## 217. Figurative Sculpture <br> (3) I, II

Six hours.
Prerequisite: Art 103.
Creative experimentation with sculptural forms from the human figure.
220. Design in Crafts (3) I, II

Six hours.
Prerequisite: Art 103.
Visual and structural form in crafts.
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.

## 234. Weaving (3) I, II

Six hours.
Prerequisite: Art 220.
Structure and design of woven fabrics. Maximum credit six units.
240. Fundamentals of Digital Media (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.
241. Beginning Graphic Design (3) I, II

Six hours.
Prerequisites: Grade of C (2.0) or better in Art 100,101, 102, and 103.
Proof of completion of prerequisites required: Copy of transcript.
Fundamental principles of visual communication.

## 243. Typography (3) I, II

Six hours.
Prerequisite: Grade of C (2.0) or better in Art 100, 101, 102, and 103. Proof of completion of prerequisite required: Copy of transcript.

Letterforms in visual communication, including historical significance of written language, semantics, and syntax as functions of expressive visual design.

## 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.

## 248. Visual Presentation II <br> (3) I, II

Six hours.
Prerequisites: Art 102, 103, 148. Proof of completion of prerequisites required: Copy of transcript.

Methods, materials, and tools of the professional environmental designer stressing art principles.

## 249. Visual Presentation III (3) I, II

Six hours.
Prerequisite: Art 248. Proof of completion of prerequisite required: Copy of transcript.

Methods, materials, and tools of the professional environmental designer stressing art principles.

## 250. The Contemporary House

(3) I, II

Six hours.
Prerequisite: Art 248. Proof of completion of prerequisite required: Copy of transcript.

Elementary problems in neighborhood planning, house design, and landscaping.

## 251. Interior Design I <br> (3) I, II

Six hours.
Prerequisites: Art 102 and 103. Proof of completion of prerequisites required: Copy of transcript.

Elementary functional and aesthetic studies in interior space and form. Relationships of light, color, texture, shape and volume.

## 258. Introduction to Art History (3) I, II (CAN ART 2) ( 258 + 259: CAN ART SEQ A)

Art development in painting, sculpture, architecture, and handicrafts from the dawn of art to the Renaissance. Illustrated.
259. Introduction to Art History (3) I, II (CAN ART 4) ( 258 + 259: CAN ART SEQ A)
The period from the Renaissance through the modern school treated in the same manner as in Art 258.

## 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.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES

 (Intended for Undergraduates)323. 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.

## 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.
326. Beginning Handbuilt Ceramics (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. (Formerly numbered Art 225.)

## 331. Beginning Jewelry and Metalwork (3) I, II

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.

## 334. Advanced Weaving <br> (3) I, II

Six hours.
Prerequisite: Art 220.
Total credit in Art 234, 334 and 534 limited to nine units.
Advanced problems in fabric design and weave construction including tapestry and rug weaving techniques. Maximum credit six units.
340. Photographic Imagery (3) I, II

Six hours.
Prerequisites: Grade of C (2.0) or better in Art 100, 101, 102, and 103.

Visual communication and expression using photographic media including photomechanical and digital processes and theory of color and light.

## 341. Graphic Design <br> (3) I, II

Six hours.
Prerequisites: Grade of $C$ (2.0) or better in Art 241 and 243. Proof of completion of prerequisite required: Copy of transcript.

Lay out, typography and reproduction applied to contemporary print and digital media.
344. Design for the Internet (3) I, II, S

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.

## 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.

## 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.

## 348. Environmental Media <br> (3) II

Six hours.
Prerequisite: Grade of $C$ (2.0) or better in Art 148 or 240 or 241 or 243.

Design communication utilizing digital media as it relates to threedimensional objects and spatial environments.
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.
357. World Art in Contemporary Life (3) 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.

## 371. Medieval Art (3)

Prerequisites: Art 258 and 259.
Development of painting, sculpture, and architecture from time of Constantine through Gothic period.

## 385. Art Education History and Practice

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.

## 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.
403. Advanced Life Drawing (3)

Six hours.
Prerequisite: Art 203.
Drawing the nude model. Maximum credit six units.
404. Intermediate Painting (3) I, II

Six hours.
Prerequisite: Art 204.
Concepts that enhance basic painting principles and a broad range of painting issues. Maximum credit six units.
406. Experimental Processes in Painting and Drawing
(3)

Six hours.
Prerequisites: Art 203 and 204.
Structure in picture making.
407. Black and White Photography as a Fine Art

## Medium (3) I, II

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.

## 408. Color Photography as a Fine Art Medium <br> (3) II

Six hours.
Prerequisite: Art 407.
Color photography as a fine art medium, including color theory, transparency and negative film exposure controls, darkroom techniques, and electronic flash and lighting techniques for color photography. Maximum credit six units.

## 410. Intaglio Printmaking (3)

Six hours.
Prerequisites: Art 203 and 210.
Creative intaglio-etching, drypoint, aquatint, engraving and variations. Emphasis on fine print quality and technical development. Maximum credit six units.
411. Lithography Printmaking (3) I, II

Six hours.
Prerequisites: Art 101 and 203.
Creative lithography-stone and plate planographic process. Emphasis on fine print quality and technical development. Maximum credit six units.

## 416. Intermediate Sculpture <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.
423. Intermediate Furniture Design and Woodworking
(3) I, II 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.

## 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.

## 431. Intermediate Jewelry and Metalwork (3) I, II

Six hours.
Prerequisite: Art 231 or 331.
Further development of design and metalworking skills specifically related to jewelry. Specialized techniques such as casting, chasing, stone setting, die forming and enameling.

## 432. Metalsmithing (3)

Six hours.
Prerequisite: Art 231 or 331
Creative design and techniques in metalsmithing.
435. Nonwoven Textile Construction (3) I, II

Six hours.
Prerequisites: Art 102 and 103. Recommended: Art 220.
Textile structures with an emphasis on nonloom techniques.
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.

## 440. Three-Dimensional Photo Imagery (3) I, II

Six hours.
Prerequisite: Grade of C (2.0) or better in Art 340.
Photography of environmental graphics, signage systems, and packaging.
441. Information Graphics (3) I, II

Six hours.
Prerequisite: Grade of C (2.0) or better in Art 341. Proof of com-
pletion of prerequisite required: Copy of transcript.
Application of visual design concepts to graphic design and advertising.

## 442. Experimental Typography <br> (3) I, II

Six hours.
Prerequisite: Art 341.
Expressive potential of typography in visual communication. Maximum credit six units.
443. Drawing and Illustration for Graphic Design (3) I, II

Six hours.
Prerequisite: Grade of C (2.0) or better in Art 203 or 204.
Methods, materials, and tools related to graphic design.
444. Sequential Media (3) I, II

Six hours.
Prerequisite: Grade of C (2.0) or better in Art 341, 344, or 348.
Study and presentation of sequential imagery. Maximum credit six units.

## 445A. Leadership in Design (1) Cr/NC I, II <br> Two hours.

Prerequisites: Consent of instructor and upper division standing in graphic design.

Management and team building skills through interaction with leaders in the design profession. Organization of campus and community events that enhance an understanding of the value of design. Field trips required.

445B. Graphic Design Internship (3) Cr/NC I, II
Prerequisites: Portfolio review and a grade of $C$ (2.0) or better in one 400 or 500 -level graphic design course.

Field experience with local practicing professionals. Maximum credit six units. (Formerly numbered Art 445.)
446. The Art of the Book II (3)

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.

## 450. Packaging Design (3)I

Six hours.
Prerequisite: Grade of C (2.0) or better in Art 341.
Synthesis of concept, functionality, and materials using exploratory methods of packaging.

## 451. Interior Design II (3) I, II

Six hours.
Prerequisites: Art 249, 250, 251, and completion of portfolio requirement. Proof of completion of prerequisites required: Copy of transcript.

Survey, analysis and conceptual design methods of residential interiors stressing materials, equipment, components and structural detailing. Maximum credit six units.

## 452. Interior Design Practicum <br> (3) $\mathrm{Cr} / \mathrm{NC} \mathrm{I}$,

Nine hours of laboratory.
Prerequisite: Art 453. Proof of completion of prerequisite required: Copy of transcript.

Field experience with local professional interior designers in client relationships, business procedures, supervision of subcontracted work and installation, and execution of contracts. Maximum credit six units.

## 453. Interior Design III (3) I, II

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.

## 454. Environmental Graphic Design <br> (3) II

Six hours.
Prerequisite: Grade of C (2.0) or better in Art 341.
Analysis and design of wayfinding systems in interior, exterior, and architectural environments.
496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 498. Senior Project (3) I, II

Nine hours for 498A; three hours for 498B.
Prerequisite: Consent of instructor.
Investigation in art. Formal presentation of project.
A. Studio project
B. Art History project
499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

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.
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.

## 503. Life Drawing and Painting <br> (3)

Six hours.
Prerequisites: Art 204 and 403.
Drawing and painting from nude and costumed models. Maximum credit six units.
504. Advanced Painting (3) I, II

Six hours.
Prerequisite: Six units of Art 404.
Approaches to contemporary concepts in painting. Maximum credit six units.
506. Contemporary Issues for Studio Artists (3)

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.
511. Lithography Printmaking in Color (3) I, II

Six hours.
Prerequisite: Art 411.
Advanced creative lithography printmaking in color. Emphasis on fine print quality in color process and color technology unique to this medium. Maximum credit six units.

## 516. Advanced Sculpture <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.
517. Figurative Sculpture (3)

Six hours.
Prerequisites: Art 216 and 217.
Figurative study with emphasis on individual exploration. Maximum credit six units.

## 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.

## 525. Advanced Ceramics (3) I, II

Six hours.
Prerequisite: Art 425.
Study of ceramic design through creative projects of clay forms. Maximum credit six units.
526. Clay and Glaze Technology in Ceramic Design

## Six hours.

Prerequisite: Art 425.
Experimentation and application of research concerning the use of ceramic materials and techniques as an integral part of the design process. Maximum credit six units.
531. Advanced Jewelry and Metalwork (3) I, II

Six hours.
Prerequisite: Art 431.
Problems involving fabrication processes already studied in order to increase technical competence while exploring personal design statements; specialized techniques such as photoetching and electroforming. Maximum credit six units.
532. Advanced Metalsmithing (3) I, II

Six hours.
Prerequisite: Art 432.
Advanced problems involving metal processes to increase technical competence while exploring personal design statements. Maximum credit six units.

## 534. Advanced Weaving <br> (3) I, II

Six hours.
Prerequisite: Art 334.
Advanced individual problems in weaving. Maximum credit six units. Maximum combined credit of nine units in Art 234, 334, and 534.
535. Advanced Nonwoven Textile Construction (3) I, II

Six hours.
Prerequisite: Art 435.
Advanced study in nonloom techniques. Techniques to include: looping, braiding, plaiting, and special fabricating techniques. Experimentation with new man-made fibers and with synthetic commercial dyes. Maximum credit six units.
536. Advanced Textile Design (3) I, II

Six hours.
Prerequisite: Art 436.
Application of design for the textile surface, appropriate for both the individual designer and commercial reproduction. Maximum credit six units.
540. Advanced 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.

## 541. Advanced Graphic Design - Visual Communication Systems (3) I, II

Six hours.
Prerequisite: Grade of C (2.0) or better in Art 341, 440, 441, 445B, or 545. Proof of completion of prerequisite required: Copy of transcript.

Design of visual communication systems relating to visual, verbal, and corporate identification strategies. Maximum credit six units.
543. Advanced Drawing and Illustration for Graphic Design (3) Six hours.
Prerequisite: Art 443.
Refinement of visual imagery and advanced illustration problems.
544. Visual Communication: Emerging Technologies
(3) II

Six hours.
Prerequisites: Grade of C (2.0) or better in Art 440 or 441 or 444 ; or Art 240 and a 500-level studio art course.

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.
545. Design Studio (3) I, II

Six hours.
Prerequisites: Portfolio review and grade of $C$ (2.0) or better in one 400 or 500-level graphic design course.

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. (Formerly numbered Art 542.)
547. Environmental Theory (3) II

Prerequisite: Art 247 or 347.
Survey of alternative solutions to the problem of design of the physical environment.
550. Environmental Prototypes (3) I

Six hours.
Prerequisite: Grade of C (2.0) or better in Art 348 or 450.
Research and development of creative architectural concepts with emphasis on the three dimensional environment.

## 552. Interior Design IV <br> (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.

## 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.

## 557. Art of the Nineteenth Century (3) I, II

Prerequisites: Art 258 and 259.
Development of painting, sculpture, and architecture from the French Revolution to 1900.

## 558. Twentieth Century European Art to 1945 (3) I, II

Prerequisite: Art 259.
Major developments in the visual arts and art criticism from 1880 to 1945 (Post-Impressionism through Surrealism).

## 559. Twentieth Century European and American Art

 Since 1945 (3) I, IIPrerequisites: Art 258 and 259. Recommended: Art 558.
Major developments in the visual arts and art criticism since 1945.
560. History of American Art (3)

Prerequisites: Art 258 and 259.
Development of painting, sculpture, and architecture from the Native American art and Colonial Period to the present.

## 561. Art of Pre-Hispanic America (3)

Prerequisite: Upper division standing.
Art of ancient Meso-America, Central America, Caribbean, and South America from earliest times until contact with Europe.

## 562. Art of Latin America (3)

Prerequisite: Upper division standing.
Art and architecture of Latin America from the colonial period to the present. Field trips included.
564. Art of China (3) II

Prerequisites: Art 258 and 259. Recommended: Art 263.
History of Chinese art from prehistoric times through the Ching Dynasty.
565. Art of Japan (3) II

Prerequisites: Art 258 and 259. Recommended: Art 263.
History of Japanese art from prehistoric times to the Meiji Restoration.

## 566. History of Japanese Painting Tenth to Twentieth Centuries (3) II

Prerequisite: Art 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.

## 567. Art of the Ancient Near East (3) II

## 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.

## 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.
569. Art of Sub-Saharan Africa (3)

Prerequisite: Upper division standing
Form and content of the art of Sub-Saharan Africa viewed within its cultural context.

## 570. Art of the Pacific Islands (3)

Prerequisite: Art 158 or 258 or 259
Visual arts of the Pacific Islands; recognition of styles and object types and their historical, social, and cultural contexts.

## 573A. Early Renaissance Art in Italy <br> (3)

Prerequisites: Art 258 and 259
Italian arts, architecture, artists, and patrons from fourteenth century Proto-Renaissance period through fifteenth century revival of classical humanism in city states of Florence, Siena, Bologna, Mantua, and Padua.

## 573B. Late Renaissance Art in Italy

Prerequisites: Art 258 and 259.
High Renaissance in Florence and Rome, followed by disintegration of classical principles and domination of Mannerism in Central and Northern Italy and history of arts of Venice in sixteenth century.

## 575. Baroque and Rococo Art (3)

Prerequisites: Art 258 and 259.
Architecture, sculpture, and painting of the Baroque and Rococo periods.

## 577. History of Architecture (3)

Prerequisites: Art 258 and 259
Architecture from primitive times to the present.
591. Gallery Exhibition Design (3) I, II

Six hours.
Prerequisite: Fifteen units of art.
Fundamental art elements and principles applied to the theories and techniques of gallery exhibition design.
592. Gallery Exhibition Design (3) I, II

Six hours.
Prerequisite: Art 591.
Advanced problems in the theories and techniques of gallery exhibition design.
593. History and Methodology of Art History (3) II

Prerequisite: Twelve units of art history.
Readings and discussions on the historiography of art and on modern methodologies for art historical research.

## 596. Advanced Studies in Art and Art History (1-4)

Prerequisites: Twelve units of art and art history and consent of instructor.

Advanced topics in art and art history. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum credit of three units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to Bulletin of the Graduate Division.

# Asian Studies 

In the College of Arts and Letters

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## Faculty

Emeritus: Madhavan
Chair: Weiner
Professor: Weiner
Assistant Professor: Griffiths
Lecturers: Wawrytko, Wittenborn
Associated Faculty: Bergstrom (Political Science), Cheng (Speech, Language, and Hearing Sciences), Chin (English and
Comparative Literature), Choi (Linguistics), Donahue (Linguistics), Ghosh (Women's Studies), Guang (Political Science), Gupta (Political Science), Hayakawa (Art), Henry (Anthropology), Higurashi (Japanese), Kitajima (Japanese), Lippold (Anthropology), Liu (Sociology), Maruyama (Art), Mclllwain (Public Administration and Urban Studies), Miyamoto (Japanese), Nakamura (Art), Pang (Teacher Education), Peterman (Music), Rogers, G. (Library), Rogers, W. (English and Comparative Literature), Samraj (Linguistics), Strand (Dean, College of Arts and Letters), Tran (Teacher Education and Policy Studies in Language and Cross-Cultural Education), Young (Policy Studies in Language and Cross-Cultural Education), Young (Spanish), 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

Two and one-half billion people live in East, Southeast, and South Asia - half of the world's population. The importance of this immense and varied region cannot be overstated. More and more Americans are discovering the rich culture and history of the Asian people. Asians have made a major contribution to the world's literature and art, religion and philosophy, and are becoming increasingly important in international relations, business, and economics.

Nonmajors who wish to increase their knowledge about Asian peoples will find courses available in the Asian studies undergraduate and graduate programs.

The 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.

## Asian Studies Major

## With the B.A. Degree in Liberal Arts and Sciences

## (Major Code: 03011)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog
on "Graduation Requirements." Each student must file an individual master plan with the Asian Studies undergraduate adviser and with the Office of Advising and Evaluations.

A minor is not required with this major.
Preparation for the Major. Asian Studies 100, 101, and three units selected from Asian Studies 261, Anthropology 102, Art 263. (9 units)

Foreign Language Requirement. Competency (equivalent to that normally attained through two consecutive years of college study) in one major Asian language, such as Chinese or Japanese, unless specifically waived by the undergraduate adviser.

Upper Division Writing Requirement. Completion of Asian Studies 360 W with a grade of C (2.0) or better.

Major. A minimum of 33 upper division units in Asian Studies selected from Asian Studies 300, 303, 310, 330, 331, 351, 440, 458, $459,460,506,530,531,533,570$. 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.

## Asian Studies Minor

The minor in Asian studies consists of a minimum of 22 units to include Asian Studies 100, 101, plus four units of an appropriate Asian language, e.g., Chinese or Japanese. Twelve units must be in upper division Asian Studies courses.

Appropriate courses for the Asian Studies minor are Asian Studies 331, 351, 440, 458, 459, 460, 499, 596; Anthropology 450, 452; Art 564, 565, 596 (when relevant)*; Economics 330, 465, 496 (when relevant)*, 499 (when relevant)*; History 563, 564, 565, 566, 567, 569, 570; Marketing 376*; Philosophy 351, 575 (when relevant)*, 596 (when relevant)*; Political Science 361, 362, 499 (when relevant)*, 563, 575*; Religious Studies 339, 345.

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.

* Additional upper division prerequisites are required for these courses.


## Courses (ASIAN)

## LOWER DIVISION COURSES

## 100. State and Society in the Asia Pacific (3)

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. (Formerly numbered Asian Studies 107.)

## 101. Asian Thought and Cultures (3)

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. (Formerly numbered Asian Studies 106.)

## 261. Economic Relations in the Asia Pacific <br> (3)

Interaction between economic development and social change in Asia Pacific in the twentieth century, particularly since the Pacific War. Comparative focus emphasizing urbanization, demographic change, mechanization, family and gender relations.
296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES (Intended for Undergraduates)

300. Asia's Global Future (3)

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

## 303. Imperialism and Nationalism in the Asia Pacific <br> (3)

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.

## 310. Diasporan Communities of the Asia Pacific (3)

Prerequisites: Asian Studies 100 or 101, and 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

## 330. Business Environment in the Asia Pacific (3)

Prerequisite: Asian Studies 261 for majors; consent of instructor for nonmajors.

Understanding impact of globalization and modernization on changing consumption patterns in Asia.
331. Women in Asian Societies (3) I
(Same course as Women's Studies 331.)
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 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
351. Literary Horizons of Asia Pacific (3)

Prerequisite: Asian Studies 100.
Fiction, drama, and poetry in modern East and Southeast Asia. Asian and Western influences on writing in Asia Pacific. Major writers and/or genres as they reflect contemporary Asian social and cultural values.
360W. Research and Writing About the Asia Pacific (3)
Prerequisite: Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Communication and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

Interdisciplinary approaches to studying and writing about the Asia Pacific. Critiquing how contemporary images of this region have been constructed and transmitted

## 440. New Religious Movements in the Asia Pacific (3)

Prerequisites: Asian Studies 100 or 101, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Relationship between new religious movements and traditional forms of religious practice and expression drawn from Buddhism, Hinduism, Christianity, and Islam. Religious syncretism featured.

## 458. Asian Traditions (3) I, II

Prerequisites: Six units of Asian-content courses or upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Social, cultural, economic, and political traditions of South, Southeast, and East Asia; how they functioned in theory and practice prior to twentieth century.

## 459. Modern Asian Cultures (3) I, II

Prerequisite: Six units of Asian-content courses or upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors

Continuity and change in traditions and values of Asian societies in face of urbanization, modernization, and Westernization since midnineteenth century.

## 460. Contemporary Issues in Filipino-American Communities (3) I, II

Prerequisites: 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.

## 496. Experimental Topics (1-4)

Prerequisite: Six units of Asian-content courses
Selected topics in Asian studies. May be repeated with new content. Maximum credit six units with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 499. Special Study (1-3)

Prerequisites: At least six units of upper division work completed toward the major or minor in Asian studies and consent of the instructor.

Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)

## 506. War and Memory in the Asia Pacific (3)

Prerequisite: Asian Studies 303
Historiography of the Pacific War and problems associated with historical evidence, memory, authentication, and political uses of history.

## 530. Media and Popular Culture in the Asia Pacific

Prerequisite: Asian Studies 261
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.

## 531. Spiritual and Intellectual Traditions in the Contemporary

 Asia Pacific (3)Prerequisite: Asian Studies 101
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.

## 533. Minorities and Human Rights in the Asia Pacific

(3)

Prerequisite: Asian Studies 261
Human rights regimes and status of minorities in parts of Asia Pacific. Examines notion of "universal rights" within and between countries of the region

## 570. Economic Dynamics of the Asia Pacific

(3)

Prerequisites: Asian Studies 100 or 261.
Rise and development of Asia Pacific economies. Focus on intraAsian commerce, role of technology, and Asia's relationship with the global economy
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 Bulletin of the Graduate Division.

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## Faculty

Emeritus: Daub, May, Nelson, Talbert, Young, A.
Chair: Etzel
Professors: Angione, Etzel (Director of Mt. Laguna Observatory), Shafter
Assistant Professors: Orosz, Sandquist, Welsh
Adjunct: Hood, Miller, Ringwald, Teare, Tovmassian, Veal, Wood, 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 atmospheric physics.

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, photographers, 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.

## 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.

# Astronomy 

In the College of Sciences

A minor is not required with this major.
Preparation for the Major. Astronomy 101; Mathematics 150, 151, and 252; Physics 195, 195L, 196, 196L, 197, 197L. (28 units)

Recommended: Chemistry 200, Computer Science 106 or 107.
Foreign Language Requirement. Competency (equivalent to that which is normally attained through three consecutive semesters of college study) is required in one foreign language as part of the preparation for the major. Refer to the section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major*. A minimum of 27 upper division units in astronomy and physics to include Astronomy 340, 350, 440, 450; Mathematics 342A; Physics 350, 354; and six units selected with the approval of the astronomy undergraduate adviser. Recommended: Astronomy 320; Physics 360, 400A, 406.

## Astronomy Major

With the B.S. Degree in Applied Arts and Sciences

## (Major Code: 19111)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

Preparation for the Major. Astronomy 101; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, 197L. (28 units)

Recommended: Chemistry 200, Engineering 120 or Computer Science 106 or 107.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major*. A minimum of 36 upper division units in astronomy and physics to include Astronomy 340, 350, 440, 450, 498A, 498B; Physics $350,354,360,400 \mathrm{~A}$; and nine units selected from Astronomy 320; 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 101 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.

[^11]
## Courses (ASTR)

## LOWER DIVISION COURSES

## 101. Principles of Astronomy (3) I, II

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.

## 109. Astronomy Laboratory <br> (1) I, II

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Astronomy 101.
Demonstration of astronomical principles through observations with astronomical instruments and analysis of astronomical data. A nighttime field trip to Mount Laguna Observatory is required
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)

301. Cosmology and Gravitational Collapse (3)

Prerequisite: Completion of the General Education requirement in Foundations II. A.1. Physical Sciences.

Einstein's theory of general relativity applied to problems of gravitational collapse (stellar evolution, neutron stars, black holes) and cosmology (origin and evolution of the universe).
310. Astrobiology and the Search for Extraterrestrial Life (3) I, II Prerequisites: 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 evolution of life on earth; life in extreme environments; cosmology and structure of universe.
320. Solar System Astronomy (3)

Prerequisites: Astronomy 101 and Physics 197, 197L.
Structures of the planets, their atmospheres and satellite systems, asteroids, comets, and meteoroids, and the interplanetary medium, including the sun's influence in the system.
340. Spherical Astronomy
(3) I

Prerequisites: Credit or concurrent registration in Mathematics 252 and Physics 197.

Problems in spherical astronomy, astronomical coordinate systems, time, general precession, and introduction to celestial mechanics.

## 350. Astronomical Techniques <br> (3) II

Prerequisite: Astronomy 340.
Data acquisition and data reduction for current instrumentation including photoelectric photometry, direct imaging, and spectroscopy. Techniques for obtaining precise measurements.

## 440. Astrophysics of Stars (3) I

Prerequisites: Credit or concurrent registration in Mathematics 342A and Physics 354.

Radiative transfer theory, atmospheres of stars and the emergent spectrum, interior structure and evolution of stars, stellar pulsations.

## 450. Astrophysics of Star Systems (3) II

Prerequisites: Credit or concurrent registration in Mathematics 342A and Physics 354.

Applications of physics in study of binary stars, star clusters, the interstellar medium and galactic structure, galaxies, and cosmology.

## 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.

498A. Senior Project (1) I, II
Prerequisite: An acceptable master plan for graduation within one year.

Selection and design of individual projects.
498B. Senior Project (2) I, II
Six hours of laboratory.
Prerequisite: Astronomy 498A.
Individual research project culminating in a final written report.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSE

(Also Acceptable for Advanced Degrees)
596. Advanced Topics in Astronomy (2 or 3) I, II

Prerequisite: Consent of instructor.
Selected topics in theoretical astronomy or astrophysics. May be repeated with new content upon approval of instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30 -unit master's degree.

GRADUATE COURSES
Refer to Bulletin of the Graduate Division.

OFFICE: Life Sciences 104
TELEPHONE: (619) 594-6767

## Faculty

Emeritus: Alexander, Alfred, Atkins, Barnett, Baxter, Bohnsack, Carmichael, Carpenter, Chen, Clark, Cohn, Collier, B., Collier, G., Cox, Daugherty, Davis, C., Dexter, Diehl, Dowler, Ebert, Etheridge, Ford, Futch, Hanscom, Hazen, Huffman, Hunsaker, Johnson, A., Johnson, G., Johnson, K., Kelly, Krekorian, Krisans, Kummerow, McBlair, Monroe, Moore, Neel, Norland, Olson, Parsons, Phelps, Phleger, Plymale, Ratty, Rinehart, Schapiro, Shepard, Sloan, Taylor, Thwaites, Van Steenbergen, Walch, Wedberg, Wilson, Zedler, J., Zedler, P., Zyskind
Chair: Glembotski
Professors: Archibald, Bernstein, Berta, Bizzoco, Breindl, Buono, Davis, R., Fisher, Franklin, Frey, Glembotski, Hemmingsen, Hurlbert, Maloy, McClenaghan, McGuire, Oechel, Paolini, Perrault, Pozos, Sabbadini, R., Simpson, Tsoukas
Associate Professors: Avila, Harris, Reeder, Segall, Williams
Assistant Professors: Anderson, Arenas-Mena, Bohonak, Burns, Deutschman, Diffendorfer, Edwards, Hedin, Hentschel, Hovel, Kelley, Lipson, Waters, Zeller
Lecturers: Garver, Gibbins, Krown, Martin, Sabbadini, G., Wingerd, M.

## 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 medical technology 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, 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 Medical Technology 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. Students must enter the University under the biology premajor code (04010) or the microbiology premajor code (04110). 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; and Mathematics 121 and 122. These courses cannot be taken for credit/no credit (Cr/NC);
b. Clear the competency requirement in writing. Refer to Graduation Requirements section of this catalog for details;
c. Have a cumulative GPA and SDSU GPA of 2.60 or higher;
d. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
e. 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 and 151 with at least a $C$ in each course; have a cumulative GPA of 2.70 or higher; have an SDSU GPA of 2.60 or higher; and complete the lower division writing competency requirement. 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).

## Biology Major

With the B.A. Degree in Liberal Arts and Sciences (Premajor Code: 04010) (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.
Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

## Biology Major

## With the B.S. Degree in Applied Arts and Sciences (Premajor Code: 04010) (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)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 24 upper division units for the B.A. degree or 36 upper division units for the B.S. degree to include Biology 352, 354, 366, 366L, and Chemistry 365. Elective courses include all upper division biology courses numbered 350 and above, Oceanography 541, and all upper division chemistry courses (except Chemistry 497, 560A-560B). 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, 533, 588/588L.

No transfer course will substitute for Biology 352, 354, 366, or 366L, Chemistry 365 or for the organismal level requirement without the specific approval of the department.

All courses not included above must have specific approval of 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 and be filed with the Office of Advising and Evaluations.

## Emphasis in Bioengineering


#### Abstract

San Diego State University is in the process of securing approval for the Emphasis in Bioengineering. For further information, contact the Department of Biology.


Preparation for the Major. Biology 201A, 201B; Chemistry 200, 201, and 231 or 232 and 232L; Engineering 190; Electrical Engineering 203; Engineering Mechanics 200; Mechanical Engineering 260; Mathematics 150, 151, 252; Physics 195, 196, 197. (55 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 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 499 or Mechanical Engineering 499; Biology 350, 467, 474, 555; either 556 or 557, 560, 569, 575 or 590; Chemistry 431; Electrical Engineering 303, 503; Exercise and Nutritional Sciences 306; Mechanical Engineering 310, 512, 540, 590.

No transfer courses will substitute without the approval of 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.

## * Additional prerequisites may be required.

## 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)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 350, 352, 354, 366, 366L, 467, Chemistry 365 and 467L, and at least 11 units of electives selected from Biology and Chemistry 496 and/or 596 (maximum 3 units), Biology 499 and/or Chemistry 497 (maximum 3 units), Biology 521, 521L, 549, 550, 551, 551L, 552, 554, 555, 556, $557,563,565,569,570,575,580,584,485$ or $585,588 / 588 \mathrm{~L}, 590$, 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 and 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.

No transfer course will substitute for Biology 352, 354, 366, 366L, 467 or Chemistry 365 and 467L without the approval of the Emphasis in Cellular and Molecular Biology adviser.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department adviser and be filed with the Office of 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)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 352, 354, 354L, 366, 366L, Chemistry 365, and at least 15 units of electives selected from Biology 496 and/or 596 (maximum 3 units), 499 (maximum 3 units), 507 (maximum 6 units), 526 or 533, 508, 509, $512,517,519,527,535,538,540,541,560,563,597 A$. 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, $460,512,515,520,523,524,525,526,533,588 / 588 \mathrm{~L}$. Other electives include all biology courses numbered 350 and above (except Biology 452), Oceanography 541, and all upper division chemistry courses (except Chemistry 497, 560A-560B). Approval of the Emphasis in Ecology adviser is required for credit in Biology 496, 499, 507, 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.

No transfer course will substitute for Biology 352, 354, 366, 366L, or Chemistry 365 without the approval of the Emphasis in Ecology adviser.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department adviser and be filed with the Office of 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)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 352, 354, 366, 366L, 509, Chemistry 365, and at least 12 units of electives selected from Biology 496 and/or 596 (maximum 3 units), 499 (maximum 3 units), 460, 508, 512, 515, 520, 521, 521L, 523, 524, 525, $526,530,531,588 / 588 \mathrm{~L}$. 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, 588/588L. Other electives include all biology courses numbered 350 and above (except Biology 452), Oceanography 541, and all upper division chemistry courses (except Chemistry 497, 560A-560B). Approval of the Emphasis in Evolution and Systematics adviser is required for credit in Biology 496, 499, 507, 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.

No transfer course will substitute for Biology 352, 354, 366, 366L, or Chemistry 365 without the approval of the Emphasis in Evolution and Systematics adviser.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department adviser and be filed with the Office of 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)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 352, 354, 366, 366L, Chemistry 365, and at least 15 units of electives selected from Biology 496 and/or 596 (maximum 3 units), 499 (maximum 3 units), 507, 512, 514, 515, 517, 519, 520, 541, and Oceanography 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 497, 560A560B), and may include three units selected from Economics 454, Geography 504, Geological Sciences 540, 545, Oceanography 561. Approval of the Emphasis in Marine Biology adviser is required for credit in Biology 496, 499, 507, 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.

No transfer course will substitute for Biology 352, 354, 366, 366L, or Chemistry 365 without the approval of the Emphasis in Marine Biology adviser.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department adviser and be filed with the Office of 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)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 352, 354, 366, 366L, Chemistry 365, and at least 15 units of electives selected from Biology 496 and/or 596 (maximum 3 units), 499 (maximum 3 units), and 515, 526, 588/588L (invertebrate group), 512, 520, 523, 524, 525 (vertebrate group), 508, 509, 527, 560, 577 (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, 588/588L. The remaining units must be selected from biology courses numbered 350 and above (except Biology 452), Oceanography 541, and all upper division chemistry courses (except Chemistry 497, 560A560B). Approval of the Emphasis in Zoology adviser is required for credit in Biology 496, 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.

No transfer course will substitute for Biology 352, 354, 366, 366L, or Chemistry 365 without the approval of the Emphasis in Zoology adviser.

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 (Premajor Code: 04110) (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)

Foreign 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. It is recommended that students select French, German or Russian to satisfy this requirement. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 26 upper division units to include Biology 350, 352, 354, 366, 366L, 521L, 549, Chemistry 365 and 467L.

No transfer course will substitute for Biology 352, 354, 366, 366L, or Chemistry 365, 467L without the specific approval of the Microbiology adviser.

All courses not included above must have the prior approval of the Microbiology adviser and 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

With the B.S. Degree in Applied Arts and Sciences (Premajor Code: 04110) (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, 210B, 215; Chemistry 200, 201, and 231 or 232 and 232L; Mathematics 121 and 122; Physics 180A, 180B, 182A, 182B. (39 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include Biology 350, 352, 354, 366, 366L, 467, 521 or 584, 521L, 549, Chemistry 365, and at least four units of electives selected from Biology and Chemistry 496 and 596 (maximum 3 units), Biology 499 and Chemistry 497 (maximum 3 units), Biology 521, 550, 551, 551L, 552, 554, 555, 556, $557,569,580,584,485$ or $585,588,588 \mathrm{~L}, 590,595$, Chemistry 431, 467L. Approval of the Microbiology adviser is required for credit in Biology 496, 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.

No transfer course will substitute for Biology 352, 354, 366, 366L, 467 or Chemistry 365 and 467L without the approval of the Microbiology adviser.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department and be filed with the Office of Advising and Evaluations.

## Emphasis in Medical Technology and Public Health Microbiology

The emphasis in medical technology and public health is a program of required and elective courses which prepares students for the Public Health Microbiologist and Clinical Laboratory Technologist academic certification and licensing examinations.

Preparation for the Major. Biology 201A, 201B, 215; Chemistry 200, 201, and 231 or 232 and 232L; Mathematics 121 and 122; Physics 180A, 180B, 182A, 182B. (39 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved courses with a grade of $C$ (2.0) or better.

Major. A minimum of 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, 551, 551L, 554, $555,556,557,569,580,588,588 \mathrm{~L}, 590,595$, 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.

No transfer course will substitute for Biology 352, 354, 366, 366L, or Chemistry 365 and 467L without the approval of the Microbiology adviser.

Time Limitation. All courses for the major must be completed within seven years of the granting of the undergraduate degree. Exceptions for individual courses must be approved by the department and be filed with the Office of Advising and Evaluations.

## Biology Major

## In preparation for the Single Subject Teaching Credential in

 Science/Biological Sciences
## With the B.S. Degree in Applied Arts and Sciences

 (Premajor Code: 04010) (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 (PRAXIS and SSAT), 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 533,560 or 590, Oceanography 541 , and at least one course from Biology $515,520,523,524,525$, or 526 (it is recommended that Biology 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, Geological Sciences 100 and 101. 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 499 may be included in the minor with prior approval of the department. For courses requiring Biology 215 as a prerequisite, a college level course in statistics may be acceptable with the approval of the instructor.

## Animal Behavior

Required: Biology 527. Electives: Biology 307, 324, 339, 354, 354L, 507, 524, Anthropology 500 and Psychology 417. Requirements for all biology minors (above) apply.

## Biology for Physiological Psychology

Required: Biology 321, 336, 436, 570. Electives: Biology 307 or 339. At least one college course in chemistry is strongly recommended to complement this minor. Requirements for all biology minors (above) apply.

## Cell Biology and Genetics

Prerequisites: Chemistry 200, 201, 231, 365. Electives: Biology 350, 352, 366L, 467, 521, 521L, 549, 563, and 590. Requirements for all biology minors (above) apply.

## Ecology

Required: Biology 354. Electives: Biology 315, 324, 327, 339, 350, 354L, 509, and 540. Requirements for all biology minors (above) apply.

## Elementary Education

Required: Biology 315, 336, 436, at least two units of Biology 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 , and an additional nine units of upper division biology courses selected from the following electives: Biology 319, 352, 508, 509, 526. Requirements for all biology minors (above) apply.

## Human Biology

Required: Biology 336,577, and a course in college chemistry, or Biology 261 or 590. Electives: Biology 307, 321, 326, 352, and 590. Requirements for all biology minors (above) apply.

## Marine Biology

Required: Biology 515 or 520. Electives: Biology 324, 515, 517, 519, 520, and 524. Requirements for all biology minors (above) apply.

## Plant Biology

Required: Biology 460, 531, 533, 535. Electives: Biology 326, 530, and 563. Requirements for all biology minors (above) apply.

## Secondary Education

Prerequisite: College level course in statistics. Required: Biology 354, 452, 533. Electives (at least one course from each group): Biology 336, 560, 590; Biology 520, 524, 525 or 527. 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 467, 498 or 499 ( 5 units as approved by the certificate adviser), 551, 552, 594, Chemistry 467L, and three electives selected from Biology 521, 521L, 549, 554, 569, 570, 575, 580, 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)

## LOWER DIVISION COURSES

## 100. General Biology (3) I, II

Prerequisite recommended: Concurrent registration in Biology 100L.
A beginning course in biology stressing processes common to living organisms. Not open to students with credit in Biology 203 or biological sciences majors; see Biology 201A, 201B.

## 100L. General Biology Laboratory (1) I, II

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Biology 100.
A laboratory course in biology stressing processes common to living organisms. Not open to students with credit in Biology 203 or biological sciences majors; see Biology 201A, 201B.

## 101. World of Animals (3)

Animal adaptation and diversity and their relationship to the development of evolutionary theory. Not open to biological sciences majors.

## 101L. World of Animals Laboratory (1)

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Biology 101.
Laboratory course on evolution and diversity of animals involving field trips and laboratory investigations. Not open to biological sciences majors.
200. Concepts in Biology (3) I

Two lectures and one hour of discussion.
Prerequisite: First semester freshman standing.
Concepts and emphases of modern biology to include nature and methods of science, relationship between structure and function, homeostasis, genetic continuity, evolution, systematics and ecology. Designed for and enrollment limited to first semester freshmen whose preparation for the major includes Biology 201B. Students with credit in Biology 200 and 201B will receive a total of four units toward a degree.

## 201A. Principles of Cell and Molecular Biology (4) I, II

Three lectures and three hours of laboratory.
Prerequisite: Chemistry 200.
Principles of biology applying to all organisms, including cell structure, membrane transport, energy metabolism, cell division, classical and molecular genetics, recombinant DNA, population genetics, mechanisms of evolution, and the basis of classification. (Formerly numbered Biology 202.)

## 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.)

## 203. Understanding Biology (4) II

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.

## 210. Fundamentals of Microbiology (4) I, II

Two lectures and six hours of laboratory.
Prerequisites: Biology 201A; or Biology 100, Chemistry 100 and 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.

## 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.
215. Biostatistics (3) 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; Civil Engineering 160; Economics 201; Political Science 201; Psychology 270; Sociology 201; Statistics 119, 250. Same course as Biology 216-216L.
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.
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.

## 247. Advanced Degree Programs in the Sciences: Application Strategies (1) <br> Prerequisite: Junior or senior standing. <br> 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.

## 248. Careers in Biological Sciences (1) $\mathrm{Cr} / \mathrm{NC}$

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.

## 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.
250. Preprofessional Topics (1) $\mathbf{C r} / \mathrm{NC}$
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.

## 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.

## 277. Medical Terminology (2)

Prerequisite: Biology 201B.
Words and word components used in medical and allied medical practice translated, investigated, and applied.

## 291. Biology Laboratory (1) I, II

Prerequisites: Recommendation by department and consent of instructor.

Special course to allow makeup of program laboratory deficiencies. Student will be assigned to a laboratory section of the appropriate course.
A. Laboratory for Biology 201B.
B. Laboratory for Biology 201A.
C. Laboratory for Biology 215.
296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 299. Special Study (1-2)

Individual research experience and interaction with researchers at an introductory level. Projects involve approximately 45 hours of laboratory or fieldwork per unit and a research report. Hours are flexible and arranged between the student and the researcher. Maximum credit four units.

## UPPER DIVISION COURSES (Intended for Undergraduates)

Writing Requirements: Completion of the English Placement Test and Writing Competency requirements is a prerequisite for all upper division biology courses numbered 350 and above.

## 307. Biology of Sex (3) I, II, S

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.

## 315. Ecology and Human Impacts on the Environment

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.

## 318. The Origins of Life (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning. A college level course in chemistry or physics. 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.

Theories of chemical evolution with emphasis on multidisciplinary aspects involving geology, geochemistry, cosmochemistry and molecular biology. Not applicable to biological sciences majors. (Formerly numbered Natural Science 431.)

## 319. Evolution (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Modern theory of organic evolution with emphasis on processes involved as they relate to past, present, and future evolution of mankind. Not applicable to biological sciences majors; see Biology 352.

## 321. Human Heredity (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Selected principles of human inheritance with emphasis on relationships to other fields of human studies. Not applicable to biology or microbiology majors; see Biology 352.

## 324. Life in the Sea (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Overview of complexity of marine life. Diverse interactions of organisms in the intertidal zone, over the continental shelves and in the open oceans. Current controversies concerning the marine biosphere. Not applicable to biological sciences majors.

## 326. Plants, Medicines, and Drugs (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Medicinal plants, toxic-poisonous plants, herbal medicines, psychoactive plants, preparation of medicines and mechanisms of action; current research results on medicinal plants and drugs used in diseases such as diabetes, cancer, and heart diseases. Not applicable to biological sciences majors.

## 327. Conservation of Wildlife (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Global ecosystems and their dynamics, with emphasis on sustainable human use and preservation and biodiversity. Not applicable to biological sciences majors.

## 336. Principles of Human Physiology (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Systems of the human body, their interrelationships and control systems which regulate them. Not open to students with credit in a college course in human physiology. Not applicable to biological sciences majors.

## 339. Sociobiology (3)

Prerequisites: Biology 100 or 101 or Anthropology 102 or Psychology 101, and completion of the General Education requirement in Foundations II.A.2. Life Sciences.

Biological bases of social behavior in animals with emphasis on altruism, aggression, territoriality, mating systems, mate choice, parental care, communication, cooperative hunting, and predator avoidance. Not applicable to biological sciences majors.

## 340A. Preventive Dentistry Program (1-2) Cr/NC

Four hours of clinical and other activities per unit.
Prerequisites: Upper division standing and active 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.

## 340B. Preventive Dentistry Leaders (2-4)

Four hours of activity per unit.
Prerequisites: Biology 340A and consent of instructor.
Supervision of one component of Preventive Dentistry Program. Maximum credit four units. Not applicable to biological sciences majors.

## 341. The Human Body (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences.

Survey of human body with emphasis on intricacy of design and integration of various organ systems. Not open to nursing, exercise and nutritional sciences, or biological sciences majors, or to students with credit in any college level human physiology or anatomy course.

## 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.

## 348. Health Professions Internship (1)

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.

## 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.
352. Genetics and Evolution (3) I,II

Prerequisites: Biology 201A, 201B, and 215.
Principles of transmission genetics, population genetics, and evolution.
354. Ecology and the Environment (3) I, II

Prerequisites: Biology 201A, 201B, 215; and Mathematics 122
Fundamental concepts in population, community, and ecosystem ecology.
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.
366. Biochemistry, Cell and Molecular Biology II
(4)

Prerequisite: Chemistry 365.
Concepts of modern integrated molecular biology, cell biology, and biochemistry.
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.

## 436. Human Physiology Laboratory (2)

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.

## 440. Laboratory Techniques in Molecular Genetics (3)

Prerequisites: Biology 350 or 366L and consent of instructor. Recommended: Biology 549.

Laboratory methods in molecular genetics; experimental design, basic approaches to research problems in molecular genetics; students design and carry out projects under direction of instructor. Maximum combined credit six units for Biology 440 and 499.

## 450. Development of Modern Biology <br> (3)

Prerequisites: Biology 201A and 201B.
History of development of modern biology stressing integration, organizing and understanding of modern topics or evolution genetics and developmental biology.

## 452. Science Concept Development and Integration (3)

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.

## 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.

## 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.

## 467. Biochemistry, Cell and Molecular Biology III (4)

Prerequisite: Biology 366.
Advanced concepts of modern integrated cell biology, molecular biology and biochemistry.

## 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.

## 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.
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.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated once with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 498. Laboratory Experience in Modern Industrial Technology (1-5) Cr/NC I, II

Up to 20 hours per week in academic year, 40 hours per week in summer sessions.

Prerequisites: Fifteen upper division units in biological sciences with grades of $A$ or $B$ and consent of instructor.

Practical laboratory experience in local industrial or SDSU campus laboratories emphasizing current technology. Maximum credit five units applicable to Recombinant DNA Technology certificate. Does not apply to biological sciences majors.

## 499. Special Study (1-3) I, II

Prerequisites: Upper division status in good standing and consent of instructor.

Individual research experience and interaction with researchers, on or off campus. Projects involve a total of approximately 45 hours of laboratory or fieldwork per unit and a research report. Hours are flexible and arranged between student and researcher. Maximum credit six units. Maximum six units applicable to the biology major for any combination of Biology 499, and Chemistry 499. Maximum three units applicable to the microbiology major for any combination of Biology 499 and Chemistry 499.

## UPPER DIVISION COURSES

## (Also Acceptable for Advanced Degrees)

Writing Requirements: Completion of the English Placement Test and Writing Competency requirements is a prerequisite for all upper division biology courses numbered 350 and above.

## 507. Topics in Ecology (2-4)

Two or three lectures and 0 to 6 hours of laboratory.
Prerequisite: Biology 354 and as may be indicated in the Class Schedule.

Treatment of particular advanced aspects of ecology not covered in regular courses, including insect ecology, intertidal ecology, and ecology of the Colorado River Delta. See Class Schedule for specific content. Maximum credit six units.

## 508. Coevolution (3)

Prerequisites: Biology 352 and 354.
Coevolution in interspecific interactions, like herbivory, predation, parasitism, competition, pollination, and mimicry.

## 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, evolution of behavior, and comparative biology. Evolutionary biology as the central organizing principle of biology.

## 512. Evolution and Ecology of Marine Mammals

Two lectures and three hours of laboratory.
Prerequisites: Biology 352 and 354.
Biology of marine mammals to include pinniped, cetacean and sirenian evolution, diet and foraging strategies, social organization, reproductive strategies, echolocation, diving physiology, and conservation.

## 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.

## 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.

## 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.

## 519. Aquaculture (3)

Prerequisite: Biology 201B. Strongly recommended: Completion of three to six upper division units in the major.

Principles and practices of the farming of aquatic organisms.
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.

## 521. Advanced General Microbiology (2)

Prerequisites: Biology 350 or an introductory course in microbiology and consent of instructor.

Taxonomy, comparative physiology and ecology of representative microorganisms found in various natural environments.
521L. Advanced 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.

## 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.

## 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.
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.
526. Terrestrial Arthropod Biology (4)

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.

## 527. Animal Behavior (4)

Three lectures and three hours of laboratory.
Prerequisites: Biology 215; Biology 201B or Psychology 211 and 260 for psychology majors.

Biological bases of animal behavior with emphasis on the ethological approach, including the evolution and adaptive significance of behavior.

## 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.

## 531. Taxonomy of California Plants (4)

Two lectures and six hours of laboratory.
Prerequisite: Biology 201B. Strongly recommended: Completion of three to six upper division units in the major.

Fundamentals of plant taxonomy with emphasis on identification of plants native and naturalized to California. Plant collecting techniques. Field trips are required.

## 533. Plant Structure and Function (3)

Two lectures and three hours of laboratory.
Prerequisite: Biology 201B. Strongly recommended: Completion of three to six upper division units in the major.

Relationships between plant structure and function. Morphology and anatomy of vascular plants considering specific function of plant organs. Approaches to solve plant morphological problems. Techniques of plant anatomy.

## 535. Plant Ecology (4)

Three lectures and three hours of laboratory.
Prerequisite: Biology 201B. Strongly recommended: Completion of three to six upper division units in the major.

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.

## 538. Environmental Policy and Regulations <br> Prerequisite: Biology 354.

(3)

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.

## 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.
541. Ecology of Fishes and Fisheries Biology

Two lectures and three hours of laboratory.
Prerequisite: Biology 354. Recommended: Biology 520.
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.

## 549. Microbial Genetics and Physiology (3) <br> Prerequisite: Biology 350 or 366.

Physiology of microbial growth, bacterial structure and function, genetics of bacteriophages and bacteria.

## 550. Eukaryotic and Prokaryotic Molecular Biology

Prerequisites: Biology 352, 366, and Chemistry 365.
Gene structure, organization, and regulation in prokaryotes and eukaryotes. Mechanisms of RNA and protein synthesis. Dynamic aspects of the genome.
551. Recombinant DNA (3) I, II

Prerequisites: Biology 350, 366, 366L, Chemistry 365, and credit or concurrent registration in Biology 467 or 549.

Theory and practice of recombinant DNA techniques.
551L. Recombinant DNA Laboratory (2)
Six hours of laboratory.
Prerequisites: Biology 350, 366, 366L, Chemistry 365, and credit or concurrent registration in Biology 467 or 549.

A laboratory course in recombinant DNA techniques.

## 552. Advanced Cell and Molecular Biology Laboratory (3) <br> Nine hours of laboratory. <br> Prerequisite: Biology 366L. Credit in Chemistry 467L. <br> Laboratory experience for advanced undergraduates utilizing cell and molecular biological techniques. Independent research project guided by instructor.

554. Molecular Virology (3)

Prerequisites: Biology 366 and Chemistry 365. Credit or concurrent registration in Biology 467 or 549.

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.
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.

## 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.
557. Transmission Electron Microscopy Laboratory (3)

One lecture and six hours of laboratory.
Prerequisite: Credit or concurrent registration in Biology 555.
Biological sample preparation and operation of transmission electron microscope.

## 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.

## 561. Radiation Biology (3)

Prerequisites: Biology 100 or 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.

## 561L. Radiation Biology Laboratory

(2)

Six hours of laboratory.
Prerequisite: Credit or concurrent registration in Biology 561.
The laboratory determination of the effects of ionizing radiation on biological systems.

## 563. Plant Physiology (3)

Prerequisites: Biology 201B and Chemistry 365.
Activities of plants, including photosynthesis, ion transport, translocation, water relations, growth and development.

## 565. Human Genetics (3)

Prerequisites: Biology 352 and Chemistry 365. Recommended: Credit or concurrent registration in Biology 366.

Pedigree analysis, gene mapping, cytogenetic and molecular analysis of inherited disease and genetically controlled phenomena in humans.

## 569. Molecular Pharmacology (3)

Prerequisite: Biology 366.
Molecular mechanisms of drug action emphasizing pharmacokinetics, drug-receptor theory, signal transduction, physiological effects of drugs on nervous cardiovascular and endocrine systems. Includes discussion of molecular approaches to rational drug design, development, and testing in the pharmaceutical industry.

## 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.

## 575. Molecular Basis of Heart Disease

Prerequisite: Biology 366 or 590.
Current literature on the molecular basis of disordered physiology leading to heart disease.

## 577. Embryology (4)

Two lectures and six hours of laboratory.
Prerequisites: Biology 201A and 201B. Strongly recommended: Completion of three to six upper division units in the major.

Studies in comparative gametogenesis, morphogenesis, and reproductive physiology.

## 580. Cell Biology of the Blood (3)

Prerequisites: Biology 366, 366L, Chemistry 365. Recommended: Concurrent registration in Biology 467 and Chemistry 467L.

Basic processes of cell development, inflammation, acquired immune response, and regulation of these processes by cytokines.

## 584. Medical Microbiology (2)

Prerequisites: Biology 350 and 366.
Discussion of major bacterial and viral pathogens; molecular mechanisms of pathogenesis, microbial toxins and antimicrobial agents; immune response to microbial infections; biochemical and molecular diagnostics.

## 585. Cellular and Molecular Immunology (3)

Prerequisites: Biology 366. Recommended: Credit or concurrent registration in Biology 467 and Chemistry 467L.

Cellular and molecular aspects of the immune response. Genetics of immunoglobulins, major histocompatibility complex, lymphocyte development and their manifestations on immune responsiveness, lymphokines immunopathologies including AIDS, and contemporary immunological techniques. Not open to students with credit in Biology 485.

## 588. Parasitology (2)

Prerequisite: Biology 201B. Strongly recommended: Completion of three to six upper division units in the major.

Study of animal parasites with special reference to those of humans.
588L. Parasitology Laboratory (2)
Six hours of laboratory.
Prerequisite: Credit or concurrent registration in Biology 588.
Examination of animal parasites including identification of important human parasites; collection and preservation of local forms. (Formerly the laboratory portion of Biology 588.)

## 590. Physiology of Human Systems (4)

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.

## 594. Biotechnology Research Rounds (2)

Prerequisites: Biology 366 and credit or concurrent registration in Biology 467.

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.
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).

## 596. Special Topics in Biology <br> (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.
597A. Univariate Statistical Methods in Biology
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 Bulletin of the Graduate Division.

# 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.

## Impacted Program

All majors in the College of Business Administration are impacted. Students must apply to enter the University under the business administration premajor code (05011). 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 (formerly 140); 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. Clear the lower division competency requirement in writing. Refer to Graduation Requirements section of this catalog for details;
c. Complete a minimum of 60 transferable semester units;
d. Have a cumulative and SDSU GPA of 2.90;
e. 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; and
f. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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

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; 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 SDSU lower division writing competency requirement; 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.

## 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 150.

The certificate will be awarded upon successful completion of the following courses: Finance 323; Information and Decision Systems 301 or 302; Management 350; Marketing 370; and three units selected from Finance 321, 589; or Management 356. (15 units)

## Courses (b A)

## LOWER DIVISION COURSES

## 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.

## 100B. Exploration of Business II (1) $\mathrm{Cr} / \mathrm{NC}$

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)
404. Small Business Consulting
(3)

Prerequisites: Approved upper division business major; 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.

## 496. Selected Topics in Business Administration

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 Bulletin of the Graduate Division.

## Chemistry

## In the College of Sciences

## 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, Dahms, Grotjahn, Metzger, Roeder, Stumph, Tong
Associate Professors: Chatfield, Cole, Cooksy, Pullman, Smith
Assistant Professors: Bergdahl, Burkey, Liang, Love, McAlpine, Roehrig, Sun

## Offered by the Department

Doctor of Philosophy degree in chemistry.
Master of Arts degree in chemistry.
Master of Science degree in chemistry.
Major in chemical physics with the B.S. degree in applied arts and sciences.
Major in chemistry with the B.S. degree in applied arts and sciences with the Certificate of the American Chemical Society. Emphasis in biochemistry.
Major in chemistry with the B.A. degree in liberal arts and sciences, with or without the Certificate of the American Chemical Society.
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 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.

## Chemistry Major

With the B.S. Degree in Applied Arts and Sciences

## (Major Code: 19051)

## and Certificate of the American Chemical Society

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.
Preparation for the Major. Chemistry 200, 201, 231, 251; Mathematics 150, 151, 252; and Physics 195, 195L, 196, 196L, 197, 197L. (44 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include Chemistry 410A-410B, 417, 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 201A; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, and 197L. (48 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include Chemistry 410A-410B, 431, 457, 550, 560A, 567; Chemistry 560B, or 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, 551L, $561,561 \mathrm{~L}, 563,569,570,585,590,595$. 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, 197, 197L. (44 units)

Foreign 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 section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 30 upper division units 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.

NOTE: See the following for recommended sequence of courses for the B.S. and B.A. Degrees and Certificate.

## OUTLINE FOR THE B.S. DEGREE AND CERTIFICATE

|  | Units |  |  | Units |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1st | 2nd |  | 1st | 2nd |
| First year | Sem. | Sem. | Second year | Sem. | Sem. |
| Chemistry 200 | 5 | - | Chemistry 231 | 4 | - |
| Chemistry 201 | - | 5 | Chemistry 251 | - | 5 |
| Mathematics 150, 151 | 5 | 4 | Chemistry 431. | - | 4 |
| Physics 195, 195L | - | 4 | Mathematics 252. | 4 | - |
| Rhetoric and Writing Studies 100 | 3 | - | Physics 196, 196L | 4 | - |
| Rhetoric and Writing Studies 200 | - | 3 | Physics 197, 197L | - | 4 |
| Communication 103 | 3 | - | General Education | 3 | 3 |
|  | 16 | 16 |  | 15 | 16 |
|  | Units |  |  | Units |  |
|  | 1st | 2nd |  | 1st | $2 n d$ |
| Third year | Sem. | Sem. | Fourth year | Sem. | Sem. |
| Chemistry 410A-410B | 4 | 3 | Chemistry 417 | - | 2 |
| Chemistry 427. | - | 1 | Chemistry 457 |  | - |
| Chemistry 520A-520B | 3 | 3 | Chemistry 498 | 1 | - |
| Chemistry 560A | 3 | - | Chemistry 550 | 2 | - |
| American Institutions | 3 | 3 | Chemistry Electives | 5 | 3 |
| General Education | 3 | 6 | General Education | 6 | 9 |
|  | 16 | 16 |  | 16 | 14 |

## OUTLINE FOR THE B.A. DEGREE AND CERTIFICATE

|  | Units |  |  | Units |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1st | 2nd |  | 1st | 2nd |
| First year | Sem. | Sem. | Second year | Sem. | Sem. |
| Chemistry 200. | 5 | - | Chemistry 231 ......................... | 4 | - |
| Chemistry 201 | - | 5 | Chemistry 251 ......................... | - | 5 |
| Mathematics 150............................. | - | 5 | Chemistry $431 .$. | - | 4 |
| Physics 195, 195L | - | 4 | Mathematics 151, 252 .............. | 4 | 4 |
| Rhetoric and Writing Studies 100 ........ | 3 | - | Physics 196, 196L .................... | 4 | - |
| Rhetoric and Writing Studies 200 ........ | - | 3 | General Education ................... | 3 | 3 |
| Communication 103 ......................... | 3 | - |  |  |  |
| General Education ............................ | 3 | - |  |  |  |
|  | 17 | 17 |  | 15 | 16 |
|  | Units |  |  | Units |  |
|  | 1st | 2nd |  | 1st | 2nd |
| Third year | Sem. | Sem. | Fourth year | Sem. | Sem. |
| Chemistry 410A-410B | 4 | 3 | Chemistry 417 ......................... | - | 2 |
| Chemistry 427 | - | 1 | Chemistry 457 ......................... | 2 | - |
| Chemistry 520A................................ | 3 | - | Chemistry 498 ......................... | 1 | - |
| Chemistry 560A............................... | - | 3 | Chemistry 550 ......................... | 2 | - |
| Physics 197, 197L ............................ | 4 | - | Chemistry Elective ................... | 2 | 3 |
| American Institutions ......................... | 3 | 3 | General Education ................... | 6 | 9 |
| General Education ........................... | - | 6 |  |  |  |
|  | 14 | 16 |  | 16 | 14 |

## Chemistry Major

## With the B.A. Degree in Liberal Arts and Sciences (Major Code: 19051)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in chemistry courses can apply to the degree.

Preparation for the Major. Chemistry 200, 201, 231; Biology 201A, 201B; Mathematics 141, 150, 151, 252; and Physics 195, 195L, 196, 196L, 197, 197L. (50 units)

Foreign 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 section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 24 upper division units in chemistry to include Chemistry 410A-410B, 417, 431, 457, 550, and seven units of electives in chemistry. Chemistry 560A-560B 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.S. Degree in Applied Arts and Sciences (Major Code: 19051)

One of the requirements for acceptance into the College of Education's postbaccalaureate credential program is to either pass the appropriate PRAXIS and SSAT 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 with the Cross-Cultural, Language, and Academic Development (CLAD) emphasis 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, 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):

1. 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 201A.
4. Mathematics/Quantitative Reasoning (3 units) to be satisfied by Mathematics 150.
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.

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 201A, 201B; Chemistry 200, 201, 231, 251; Geological Sciences 100, 101; Mathematics 150, 151; Physics 180A, 180B, 182A, 182B and Mathematics 252 OR Physics 195, 195L, 196, 196L, 197, 197L. (65 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include Chemistry 410A, 410B, 417, 431, 457, 498 (1-3 units), 520A, 550, 560A, 571; Oceanography 541. The remaining four to six units must be selected from Chemistry 497, 499 (with approval of department), 520B, 560B, 567, 596, and Physics 311. This major does not qualify for ACS certification.

## 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 Chemistry 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, 197 L . (44 units)

Recommended: A course in computer programming.
Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 48 upper division units to include Chemistry 410A-410B, 431, 457, 520A, 550; Physics 311, 340A, 340B, 350, 354, 357, 400A-400B, 410.

## 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.

* Additional prerequisites in mathematics and physics required for these courses.


## Courses (СНем)

## LOWER DIVISION COURSES

100. Introduction to General Chemistry with Laboratory (4) I, II

Three lectures and three hours of laboratory.
Elementary principles of chemistry used to illustrate nature and development of modern scientific thought. Not open to students with credit in Chemistry 105 or 200.

## 105. Preparation for General Chemistry (4) I, II

Three lectures and three hours of laboratory.
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.
130. Elementary Organic Chemistry (3) I, II

Prerequisite: Chemistry 100, 105, or 200.
Introduction to compounds of carbon including both aliphatic and aromatic substances. Not open to students with credit in Chemistry 230, 231, or 232.
160. Introductory Biochemistry (3) I, II

Prerequisite: Chemistry 130.
Fundamental principles of the chemistry of living processes. This course intended primarily for majors in nursing, nutrition, and related fields.

## 200. General Chemistry (5) I, II (CAN CHEM 2) (200 + 201: CAN CHEM SEQ A)

Three lectures and six hours of laboratory.
Prerequisites: High school chemistry or a grade of "C" or better in Chemistry 105, and two years of high school algebra.

General principles of chemistry with emphasis on inorganic materials. Students with credit for either Chemistry 100 or 105, and 200 will receive a total of five units of credit toward graduation.

[^12]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 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.

## 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.

## 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.
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.

## 251. Analytical Chemistry (5) I, II

Three lectures and six hours of laboratory.
Prerequisites: Chemistry 201 and credit or concurrent registration in Mathematics 122 or 150.

Introduction to the theory and practice of analytical chemistry including gravimetric, volumetric, and instrumental methods.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
297. Introduction to Chemical Research (1-3)

Prerequisite: Consent of instructor.
Individual laboratory investigation. Maximum credit six units.

## 299. Special Study (1-4)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES (Intended for Undergraduates)

300. Mysteries and Molecules (3

Prerequisites: Chemistry 100 and 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.
308. Chemistry as a Unifying Science (3)

Prerequisites: Biology 100 or 203; Geological Sciences 104 or Natural Science 100; Natural Science 412A or 412D.

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.

361A-361B. Fundamentals of Biochemistry (3-3)
Prerequisites: Chemistry 231. Chemistry 361A or 365 is prerequisite to Chemistry 361B.

The chemistry of intermediary metabolism and its regulation. Chemistry 361 A is not open to students with credit in Chemistry 365 or 560A. Chemistry 361B is not open to students with credit in Chemistry 560B, 562, or 563.
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 applicable to the chemistry major or minor unless Chemistry 368 is also taken. Not open to students with credit in Chemistry 361A or 560A.
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. Chemistry 368, together with Chemistry 365, can be used to replace Chemistry 361A or 560A. Chemistry 368 alone cannot be used to fulfill any chemistry requirement. Not open to students with credit in Chemistry 361A or 560A.

## 371. Environmental Chemistry (3)

Prerequisites: One year of general chemistry and Chemistry 231 or 251.
Chemical principles of naturally occurring and polluted air, water, and soil environments.
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; and credit or concurrent registration in Physics 197 and 197L. Chemistry 410A is prerequisite to 410B.

Theoretical principles of chemistry with emphasis on mathematical relations. Theory and practice in acquisition and statistical analysis of physical measurements on chemical systems.

## 417. Advanced Physical Chemistry Laboratory <br> (2) II

Six hours of laboratory.
Prerequisites: Chemistry 410B, 457, and 550.
Experimental physical chemistry. Emphasis on interpretation and statistical evaluation of instrument-derived results, record keeping, report writing, and individual initiative in observing results.

## 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.

## 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.
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.
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.
457. Instrumental Methods of Chemical Analysis Laboratory (2) I

Six hours of laboratory.
Prerequisites: Chemistry 431 and credit or concurrent registration in Chemistry 410B; concurrent registration in Chemistry 550.

Application of instrumental methods of chemical separations and analysis frequently used in all subdisciplines of chemistry.

## 467L. Biochemistry, Cell and Molecular Biology Laboratory (2) I, II

Six hours of laboratory.
Prerequisites: Biology 366, 366L, credit or concurrent registration in Biology 467. 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.

## 496. Selected Topics in Chemistry (1-4)

Prerequisite: Consent of instructor.
Selected topics in modern chemistry. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of $296,496,596$ courses applicable to a bachelor's degree. Maximum credit six units.
497. Undergraduate Research (1-3) Cr/NC I, II, S

Prerequisites: Chemistry 231 and 251.
Individual laboratory investigation. Maximum credit six units.
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.

## 499. Special Study (1-4) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

## 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.

## 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.
520A-520B. Inorganic Chemistry (3-3) I, II
Prerequisite: Credit or concurrent registration in 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.

## 530. Physical Organic Chemistry (3)

Prerequisites: Chemistry 410A and 431. Recommended: Credit or concurrent registration in Chemistry 410B.

Electronic and physical properties of organic molecules; structurereactivity correlations: Electronic structure of molecules (qualitative molecular orbital theory); stereochemistry; and linear free energy relationships.

## 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.

## 537. Organic Qualitative Analysis (4)

Two lectures and six hours of laboratory.
Prerequisites: Chemistry 431 and credit or concurrent registration in Chemistry 410A. Recommended: Chemistry 417 and 457.

Chemical, physical, and spectral methods discussed and employed to determine structure of organic compounds. Purification and separation techniques stressed.

## 550. Instrumental Methods of Chemical Analysis (2) I

Prerequisites: Chemistry 431 and credit or concurrent registration in Chemistry 410B; concurrent registration in Chemistry 457 for undergraduate students only.

Theory and application of those instrumental methods of chemical separation and analysis most frequently used in all subdisciplines of chemistry.

## 551. Advanced Analytical Chemistry (3) II

Prerequisite: Chemistry 550.
Expanded treatment of instrumental methods for separation and quantification not covered in Chemistry 550. Non-instrumental separations, quantitative organic microanalysis, sampling theory and techniques, reaction rate applications and interpretation of experimental data.

## 552. Chromatographic Separations

Prerequisite: Chemistry 550.
Theory of chemical separations and solvent theory and their application to gas and liquid chromatographic media and capillary electrophoresis, emphasizing practiced methods of analysis.

## 553. Interpretation of Mass Spectra (1)

Prerequisite: Chemistry 550.
Methods of ionization used to produce mass spectra from atoms and molecules. Interpretation of electron impact mass spectra. Applications to modern methods of analysis of large organic molecules from gas, liquid, and capillary electrophoresis forms of chromatography.
560A-560B. General Biochemistry (3-3) I, II
Prerequisites: Chemistry 431 and credit or concurrent registration in Chemistry 410A.

The structure, function, metabolism, and thermodynamic relationships of chemical entities in living systems. Chemistry 560A is not open to students with credit in Chemistry 361A or 365. Chemistry 560B is not open to students with credit in Chemistry 361B, 562 or 563.

## 562. Intermediary Metabolism (2)I

Prerequisites: Chemistry 361A or 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 361B or 560B.

## 563. Nucleic Acid Function and Protein Synthesis (2) I

Prerequisites: Chemistry 361A or 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 B or 560B.
564. Receptor Biochemistry and Protein Modification (2) II

Prerequisites: Chemistry 361A or 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.

## 567. Biochemistry Laboratory (3) I, II

One lecture and six hours of laboratory.
Prerequisite: Chemistry 361A or 560A.
Theory and practice of procedures used in study of life at molecular level. Includes purification and characterization of enzymes, isolation of cell components, and use of radioactive tracer techniques.

## 571. Environmental Chemistry (3)

Prerequisites: Chemistry 231 and 251; consent of instructor for all other majors.

Fundamentals of chemistry applied to environmental problems. Chemistry of ecosystems; analysis of natural constituents and pollutants; sampling methods; transport of contaminants; regulations and public policy.

## 596. Advanced Special Topics in Chemistry <br> (1-3) <br> 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 Bulletin of the Graduate Division.

# Chicana and Chicano Studies 

In the College of Arts and Letters

## Faculty

Emeritus: Nuñez, Villarino
Chair: Griswold del Castillo
Professors: Griswold del Castillo, Hicks, Ortiz
Associate Professors: Del Castillo, Ojeda, Rodriguez
Assistant Professors: de la Luz Ibarra, Iglesias Prieto

## Offered by the Department

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 two 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; and Social Science, including courses which analyze social institutions and how they affect the individual and also emphasize contemporary Mexican American issues as they relate to the larger society. Areas of study include political science, anthropology, economics, sociology, and history.

Bilingual/bicultural graduates are sought after more than ever before. A student with a major or minor in 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.

## 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 and 110. (6 units)

Foreign 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. Students are encouraged to satisfy this language requirement in Spanish. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 24 upper division units to include 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, 314A, 314B, 335, 375, 376, 380, 396W, 400, 450, 464; 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 Chicana and Chicano Studies 100, 110, 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, 314A, 314B, 335, 375, 376, 380, 396W, 400, 450, 464; 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, 555; 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 border-oriented internship.

Fifteen units selected from the following areas, at least three units from each area. In addition to the courses listed and with the approval of the adviser, students may take border-related courses from other areas, but no more than six units can be from a single department. Courses in the certificate may not be counted toward the minor.

Evolution of Social and Environmental Regions: 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)

## LOWER DIVISION COURSES

(Unless otherwise noted, all Mexican American Studies courses are now listed as Chicana and Chicano Studies courses.)

## 100. The Mexican American Heritage (3)

Cultural achievements and thought of Spanish speaking peoples of North America; development of aesthetic and ethical values. North American intellectual history and influence of philosophical orientations of native and Mestizo peoples. Implications for social change.

## 110. Introduction to Mexican American 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.)

## 111A. Oral Communication (3)

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.

## 111B. Written Communication (3)

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements. (See Graduation Requirements section of catalog.) Proof of completion of prerequisites required: Copy of

EPT or competency scores or verification of exemption; or proof of credit (Cr) in Rhetoric and Writing Studies 92A or 92B or 97A or 97B.

Training for students from Mexican American backgrounds in the process of written expression. English grammar and composition; the essay, the term paper. Chicana and Chicano Studies 111B is equivalent to Rhetoric and Writing Studies 100. Not open to students with credit in Rhetoric and Writing Studies 100 or higher- numbered composition course or Africana Studies 120 or Linguistics 100.

## 120A-120B. The Mexican American Role in the American Political System (3-3)

Semester I: Relationship between the Mexican American community and the American political system. Semester II: The Mexican American in relation to his city, county, and state institutions in California. This year course satisfies the graduation requirement in American Institutions.

## 141A-141B. History of the United States (3-3)

Spanish, Mexican, and Chicano influences on US history. Semester I: Comparative development of US and Mexico to 1865. Semester II: Mexican Americans in US history; US and Mexican national histories compared from 1865 to the present. This year course satisfies the graduation requirement in American Institutions.

## 200. Intermediate Expository Research and Writing <br> Especially designed for bilingual/bicultural students.

(3)

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements and Chicana and Chicano Studies 111B or Africana Studies 120 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, Linguistics 200, or Rhetoric and Writing Studies 200.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES

(Intended for Undergraduates)

## 301. Political Economy of the Chicano People (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: 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.
303. Mexican American Community Studies (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Chicana and Chicano Studies 110.

Mexican American communities from a comparative perspective. Systematic inquiry into methods and issues in community studies. Contemporary social, institutional, and political affairs.

## 306. Mexican Immigration (3)

Immigration from Mexico in the context of US immigration history and policies. Comparative study of political, economic, and cultural factors. Undocumented immigration and current US law.

## 310. Mexican and Chicano Music (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Music of Mexico and the Southwest including folk dances appropriate for children and adults. Emphasis on the corrido, its history and development in Mexico and the US. Course will be taught bilingually.

314A. Rondalla I (3)
Six hours of activity.
Prerequisites: Upper division standing; Chicana and Chicano Studies 301 and consent of instructor.

Music of pre-Columbian and various Mexican romantic historical genres, i.e. corridos (ballads), musica Jarocha (music of Veracruz), boleros (romantic music), musica Nortena (music of Northern Mexico). Emphasis on cultural context, style, and techniques.

## 314B. Rondalla II (3)

Six hours of activity.
Prerequisite: Chicana and Chicano Studies 314A.
Development of intermediate skills in Rondalla music, instruments, and their use. Three-voice harmony, guitar, requinto, and guitarron.

## 320. Mexican American Life Styles (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Social relations and cultural evolution in the Mexican American community, female-male relationships, and family. Influence of Span-ish-Mexican feudal cultural heritage and US industrial-capitalist society. Comparative cross-cultural social science methodology. Includes interview techniques.
324. Gramatica Cantada (Pedagodia, Musica y Cultura) (3)

Methods and materials of Spanish instruction through music of Mexico and the Southwest.

## 335. Mexican American Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Ideas, forms, history of significant Mexican American prose, poetry and other literary genres.
340. Mexican Women in Historical Perspective:

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.

## 350A-350B. Chicano History (3-3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Semester I: Review of indigenous origins; Hispanic institutions and northward expansion; the Mexican Republic. Semester II: Early US encroachment and the Mexican American War; Chicano influences and contributions; the multilingual and multicultural Southwest.

## 355. The United States-Mexico International Border (3) I

Prerequisites: Upper division standing; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

History, culture, economics, and politics of US/Mexico border region. Theories and policy issues surrounding development of region; local regional problems and major agencies, institutions, organizations addressing these problems.

## 375. US/Mexico Border History (3)

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.

## 376. Mexican American Culture and Thought (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Intellectual history of the Mexican American as a synthesis of different cultural traditions and perspectives. Philosophical concepts from pre-Cortesian times to the present.
380. US/Mexico Borderlands Folklore (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Recommended: Chicana and Chicano Studies 110.

Border folklore; myths, rituals, legends, sayings, and songs of Chicanos and Mexicanos in the US.
396W. Chicano Prose: Creative Writing (3)
Prerequisite: Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Communication 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.

## 400. Mexican Images in Film (3)

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.

## 450. Contemporary Chicana and Chicano Theatre (3)

Prerequisites: Upper division standing and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Survey and analysis of contemporary Chicano theatre including works by people of Puerto Rican, Cuban American, and other Latin American origins in the United States.

## 464. Literature for the Chicano Bilingual Student (3)

Chicano literature for the preschool, elementary, and junior high bilingual Chicano student.
480. The Mexican American and the Schools (3)

Prerequisite recommended: Chicana and Chicano Studies 110.
The Mexican American child's experience in the school system from preschool through high school with emphasis on social, intellectual and emotional growth and development.

## 496. Selected Topics in Mexican American Studies (1-3)

Intensive exploration of selected topics in the area of Mexican American studies. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

## 498. Internship in US-Mexico Border (3)

Nine to twelve hours per week plus four class meetings.
Prerequisites: Upper division standing, 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.

## 499. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSE <br> (Also Acceptable for Advanced Degrees)

## 596. Topics in Mexican American Studies (1-3)

Prerequisite: Consent of instructor.
Advanced topics in Mexican American studies. See Class Schedule for specific content. May be repeated with new content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

# Child and Family Development 

OFFICE: Professional Studies and Fine Arts 413<br>TELEPHONE: (619) 594-5380<br>FAX: (619) 594-5921<br>EMAIL: troberts@mail.sdsu.edu

## Faculty

Emeritus: Cannon, Deutsch, Hewes, Milne, Ross, Somerville
Chair: Roberts
Professors: Balkwell, Roberts
Associate Professor: Ritblatt
Assistant Professor: Hokoda
Lecturers: Booth, Gardner, Mello

## 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, day 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, and the Associated Students' Campus Children's Center. The department's Child Study Center focuses on undergraduate and graduate training and research by operating a Campus Children's Center in collaboration with SDSU's Associated Students and San Diego City Schools. Special programs, such as Art and Music Experiences for Children and Moms Helping Kids domestic violence program, often extend service through the summer and allow for creative collaboration across disciplines and in the community. All children's programs are mainstreamed and a wide range of special needs and at-risk populations are served by a full inclusion program.

The child development degree also provides a flexible curriculum base for continuation into graduate programs in child development or family relations in: 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. Students must enter the University under the child development premajor code (08230). 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 and SDSU GPA of 2.40 or higher;
d. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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).

## Child Development Major

## With the B.S. Degree in Applied Arts and Sciences <br> \section*{(Premajor Code: 08230) (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; and Psychology 270 and 271 (or Sociology 201). (25-26 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 38 upper division units to include Child and Family Development 335, 370, 371, 375, 537, 575, 590, and one of the three specializations listed below.

Child Development Specialist: Child and Family Development 376A (1 unit), 377, 477, 570, 577, and three upper division units selected with approval of the program adviser.*

Family Development Specialist: Child and Family Development 376C (1 unit), 536, 578, and nine units selected with the approval of the program adviser.

General Child and Family Development: Child and Family Development 376A, 376B, or 376C (1 unit), and 15 upper division units selected with the approval of the program adviser.

* With appropriate work experience fulfills requirements for the Child Development Master Teacher Permit or Site Supervisor Permit in California; with completion of the B.S. degree and one program year of site supervisor experience fulfills requirements for the Child Development Program Director Permit. For complete information on Title 5 Regulations pertaining to California Child Development Permits write: California Commission on Teacher Credentialing, Certification, Assignment and Waivers Division, P. O. Box 944270, Sacramento, CA 94244-2700, (916) 445-7254 or the San Diego County Office of Education, Credentials Technician, 6401 Linda Vista Road, San Diego, CA 92111, (619) 292-3500.


## 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 370, 371, 375+; one unit selected from 376A+, 376B+, or 376C+; 377, 477, 537, 570+, $575,577,590,597,597 \mathrm{~L}$; Psychology 432+. No more than six of the 16 units may be in experiential courses.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

[^13]
## Family Life Education Certificate

The purpose of this certificate program is to prepare students for careers in family life education. The program is designed for individuals working on degrees in child development and health science. It also provides a self-improvement opportunity for people seeking employment, promotion, or upward mobility on the job who are not enrolled in degree programs.

Awarding of the certificate requires completion of an approved pattern of five courses (15 units) with a grade of "C" or better in each of the courses to include Child and Family Development 135, 270+ or $371+$ or Psychology 230+; Biology 307, Community Health Education 475; and Psychology 355+. The course offerings under this program meet the criteria for training and standards of the American Association of Sex Educators and Counselors.

Child and Family Development 135, 270 or 371 (six units) are applicable to the child development major. Community Health Education 475 and Psychology 355 (six units) are applicable to the health science major. Courses in the certificate may not be counted toward the minor.

For further information regarding the Family Life Education Certificate program, consult the Department of Child and Family Development.

+ Indicates course with prerequisites not included in requirements listed above.


## Courses (CFD)

## LOWER DIVISION COURSES

## 135. Principles of Family Development (3) I, II

Intimacy, compatibility, conflict, and communication in relationship formation and adjustment.

## 270. Principles of Child Development (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.

Child from conception through adolescence; emphasis on biological, cognitive, and psychosocial development. Not open to students with credit in General Studies 130 or Psychology 230.
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.

## 272. Child, Family, Community (3)

Prerequisites: Child and Family Development 135, 270, 270 L (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.

## 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.

## 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)

## 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.

## 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.

## 371. Human Development: Middle Childhood and Adolescence (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.

Physical, social, emotional, and intellectual development of children during middle childhood and adolescence. Emphasis on parent, sibling, and peer relationships. Prevention and correction of developmental difficulties.
375. Child and Family Development Programs (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. Concurrent registration in one unit of 376A, 376B, or 376C.

Program models for children and families. Communication techniques, basic skills, and strategies in working with children and families. Development, implementation, and evaluation of appropriate curricula and environments. School- and community-based opportunities.

## 376. Laboratory Experiences with Children and Families (1-3) Cr/NC

Three hours of laboratory for each unit of credit.
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. Credit or concurrent registration in Child and Family Development 375.

Directed experiences in a mainstreamed setting. Designing and implementing, developmentally appropriate activities. May be repeated with consent of instructor. Maximum credit three units in Child and Family Development 376A, 376B, 376C.
A. Programs for Infants, Toddlers, Preschool Children
B. Programs for School-Age Children and Adolescents
C. Programs for Families

## 377. Adult Supervision in Child and Family Development

 Programs (3)Prerequisites: Child and Family Development 375 and 376A, 376B, or 376C. 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.

## 477. Administration of Child Development Programs (3) I

Prerequisite: Child and Family Development 375. Proof of completion of prerequisite required: Copy of transcript.

Programs for young children: design, implementation, and evaluation. Research applications and legal requirements for public and private sectors.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)
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.

## 537. Child Abuse and Family Violence <br> (3) I, II

Prerequisites: Child and Family Development 270 and 371; consent of instructor for graduate students. Proof of completion of prerequisites required: Copy of transcript.

Multidisciplinary approach to child abuse and family violence including maltreatment, mistreatment, neglect, sexual abuse.
570. Infant/Toddler Development
(3) I

Prerequisite: Child and Family Development 275 or Psychology 230 with grade of $C$ (2.0) or better. Proof of completion of prerequisite required: Copy of transcript.

Physiological, psychological, cognitive, social, and cultural development of the human organism from conception through three years of age.

## 575. Public Policy and Professional Ethics in Child and Family

 Development (3)Prerequisites: Child and Family Development 375; 376A, 376B, or 376 C; and 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.

## 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.
578. Parent-Child Relationships Across the Life Span (3) I

Prerequisites: Child and Family Development 335 and 370. Proof of completion of prerequisites required: Copy of transcript.

Multidisciplinary approach to the parent-child relationship as it continues and changes throughout the life of the dyad, including study of normative and nonnormative life events.
590. Developmental Dysfunctions (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.
596. Advanced Studies in Child and Family Development (1-6)

Prerequisite: Nine upper division units in child and family development.

Advanced study of selected topics. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of nine units of 596. No more than six units of 596 may be applied to either the bachelor's or master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30 -unit master's degree.
597. Child and Family Development Field Experiences (1) I, II

Prerequisites: Fifteen upper division units in child and family development with a grade of $\mathrm{B}(3.0)$ or better in courses selected from Child and Family Development major. Concurrent registration in Child and Family Development 597L. Proof of completion of prerequisites required: Copy of transcript.

Current issues and career preparation in child and family development.

## 597L. Child and Family Development Field Experiences

 Laboratory (2) Cr/NC I, IIPrerequisites: Fifteen upper division units in child and family development with a grade of $B(3.0)$ or better in courses selected from Child and Family Development. Concurrent registration in Child and Family Development 597. Proof of completion of prerequisites required: Copy of transcript.

Supervised work experiences under joint supervision heads and course instructor.

GRADUATE COURSES Refer to Bulletin of the Graduate Division.

## Faculty

Emerita: Woo
Chair: Kaplan
Associate Professor: Zhang
Assistant Professor: Wu
Lecturer: Kong

## Offered by the Department of Linguistics and Oriental Languages

Major in international business, with emphasis in Chinese.
See International Business.
Minor in Chinese.

## Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Chinese to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Chinese 201 or the equivalent level of achievement. The usual sequence of coursework is Chinese 101, 102, and 201. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

## High School Equivalents

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

Secondary school language courses can be used as follows:

1. The first two years of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.
2. The first three years of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.
3. Four years of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the foreign language requirement.

## Chinese Minor

The minor in Chinese consists of a minimum of 19 units in Chinese; at least 16 units must be in the Chinese language of which six units must be in upper division courses. The remaining three units may be selected from additional Chinese language courses or selected from Art 263, Asian Studies 458, 459, Comparative Literature 455, 460 (when appropriate), History 566, 567, either Linguistics 420 or 520, Philosophy 351, Religious Studies 345.

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)

## 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.

## 101. Elementary Chinese I (5) I

Five lectures and one hour of laboratory.
Rudiments of Mandarin pronunciation; listening, speaking, reading, and writing with emphasis on communicative ability; acquisition of the most useful phrases and vocabulary items, and over 300 characters; familiarity with basic sentence structures of Mandarin; information on Chinese culture. Not open to students who have completed three years of high school Chinese unless the third course was completed five or more years ago. See Class Schedule for appropriate section based on your background in Chinese.

## 102. Elementary Chinese II (5) 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.
201. Intermediate Chinese I (5) 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.

## 202. Intermediate Chinese II (5) 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.

## 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)

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.

## 301. Advanced Chinese I (3)

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.

## 302. Advanced Chinese II (3)

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.

## 351. Introduction to Classical Chinese (3) <br> (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.

## 352. Aspects of Chinese Language <br> (3)

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.

## 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.

## 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.

## 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.

## 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 civiization.

## 451. Readings in Modern Chinese Literature

Prerequisite: Chinese 302.
Fiction, prose, poems, and plays written after May Fourth Movement in 1911, which marked beginning of vernacular literature.

## 496. Topics in Chinese Studies (1-4)

Topics in Chinese language, literature, culture, and linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit eight units.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

In the College of Engineering

The undergraduate degree in Civil Engineering is accredited by the Accreditation Board for Engineering and Technology, Inc.

## Faculty

Emeritus: Chang, Chou, Johnson, Krishnamoorthy, McGhie, Noorany Chair: Supernak
The AGC Paul S. Roel Chair in Construction Engineering and Management: Walsh
Professors: Banks, Hayhurst, Ponce, Supernak, Westermo
Associate Professors: Bayasi, Sharabi, Walsh
Assistant Professor: Valdes

## Offered by the Department of Civil and Environmental Engineering

Doctor of Philosophy degree in engineering sciences/applied mechanics.
Master of Science degree in civil engineering. Concentration in environmental engineering.
Major in civil engineering with the B.S. degree.

## The Associated General Contractors (AGC) <br> 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.

## 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 Bulletin of the Graduate Division 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.

## Transfer Credit

No credit will be given for upper division engineering coursework taken at an institution having an engineering program which has not been accredited by the Accreditation Board for Engineering and Technology, Inc., unless the student successfully completes the first 12 units of engineering work attempted at this university. At that time, and upon recommendation of the department, 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, III, and IV combined (Foundations, American Institutions, and Explorations).
I. Communication and Critical Thinking: 9 units

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)
II. Foundations: 29 units
A. Natural Sciences and Quantitative Reasoning (17 units):
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 201A, 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
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)

## CIVIL ENGINEERING MAJOR

 FRESHMAN YEAR

[^14]\# Approved as part of the student's master plan.

## The Major

Civil engineering is the application of engineering principles to the improvement of the human environment. The civil engineering major prepares students to design and supervise the construction of buildings, dams, roads, harbors, airports, tunnels, and bridges. It also provides training in the planning and construction of the complex systems that supply clean water to cities, remove sewage, control floods and perform other functions which ensure continued health and safety.

Civil engineers are needed in both the private and public sectors They are employed in the aerospace industry, usually as structural engineers; design and construction of roads, buildings, bridges airports, dams and other structures; research and teaching at colleges and universities (with an advanced degree); public utilities and transportation; manufacturing; and offshore drilling, environmental pollution, and energy self-sufficiency. New job opportunities in civil engineering will result from growing demands in housing, industrial buildings, power generating plants, and transportation systems.

## Civil Engineering Major

## With the B.S. Degree (Major Code: 09081)

NOTE: See chart on the previous page for the recommended sequence of courses for the major in civil engineering.

The program below describes 137 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 260, 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.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 48 upper division units to include 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 553, 554, 555, 556, 558, 560.
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- and any 400- or 500-level Civil or Environmental Engineering courses not used to satisfy other requirements. The student's choice of elective courses must be made in consultation with the adviser and documented by filing an approved master plan as soon as the civil engineering major is declared. Students are required to see their adviser prior to preregistration each semester.

## Courses (CIV E)

Note: Proof of completion of prerequisites (copy of transcript) is required for all courses which list prerequisites.

## LOWER DIVISION COURSES

## 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.

## 120. Civil and Environmental Engineering Computer

 Applications I (3) IPrerequisite: Credit or concurrent registration in Mathematics 150.
Computing tools for civil engineering. Use of spreadsheets, programming, mathematical analysis programs, presentation, and graphics programs.

## 121. Civil and Environmental Engineering Computer Applications II (2) II

Prerequisite: Civil Engineering 120.
Computer aided design for civil engineering applications (AutoCAD).
160. Statistical Methods for Civil and Environmental Engineers (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; Biology 215; Economics 201; Political Science 201; Psychology 270; Sociology 201; Statistics 119, 250. (Formerly numbered Civil and Environmental Engineering 160.)
218. Surveying for Civil Engineers (3) I, II

Two 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. (Formerly numbered Civil and Environmental Engineering 218.)

## 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.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES (Intended for Undergraduates)

## 301. Introduction to Solid Mechanics (3) I, II

Prerequisites: Engineering Mechanics 200 and concurrent registration in Engineering 280 or Mathematics 342A.

Mechanics of solid deformable bodies involving analytical methods for determining strength, stiffness, and stability of load-carrying members. (Formerly numbered Engineering Mechanics 301 and Civil and Environmental Engineering 301.)

## 302. Solid Mechanics Laboratory (1) I, II

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Civil Engineering 301.

Laboratory studies in solid mechanics. Experimental stress analysis. Experimental confirmation of theory. (Formerly numbered Engineering Mechanics 302 and Civil and Environmental Engineering 302.)

## 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. (Formerly numbered Civil and Environmental Engineering 321.)

## 335. Computer Aided Drawing and Design (3)

Application of computer aided drafting and design to civil and environmental engineering projects. (Formerly numbered Civil and Environmental Engineering 335.)
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.

## 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.

## 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. (Formerly numbered Civil and Environmental Engineering 421.)
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. (Formerly numbered Civil and Environmental Engineering 423.)
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. (Formerly numbered Civil and Environmental Engineering 444.)
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. (Formerly numbered Civil and Environmental Engineering 445.)
462. Geotechnical Engineering (3) I, II

Prerequisites: Civil Engineering 301, credit or concurrent registration in Engineering Mechanics 340, and concurrent registration in Civil Engineering 463.

Mechanics of soils as they apply to engineering problems, soil classification, compaction, swelling, consolidation, strength and permeability. Applications to geotechnical and environmental engineering problems. (Formerly numbered Civil and Environmental Engineering 462.)
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. (Formerly numbered Civil and Environmental Engineering 463.)

## 465. Foundation Engineering and Earth Retaining Structures (3) II

Prerequisites: Civil Engineering 462 and 463.
Soil mechanics theories applied to design of shallow and deep foundations; lateral pressure of soils, design of retaining walls. (Formerly numbered Civil and Environmental Engineering 465.)

## 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. (Formerly numbered Civil and Environmental Engineering 479.)

## 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. (Formerly numbered Civil and Environmental Engineering 481.)

## 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. (Formerly numbered Civil and Environmental Engineering 482.)
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. (Formerly numbered Civil and Environmental Engineering 491.)
492. Construction Engineering (3) II

Prerequisites: Civil Engineering 491 and Engineering 430.
Project oriented. Cost estimating; alternative cost-saving changes; critical path scheduling. (Formerly numbered Civil and Environmental Engineering 492.)

## 495. Civil Engineering Design (3) I, II

One lecture and six hours of laboratory.
Prerequisites: Credit or concurrent registration in Civil Engineering 321, 421, 444, 462, 481, and Environmental Engineering 355. 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. (Formerly numbered Civil and Environmental Engineering 495.)
496. Advanced Civil Engineering Topics (1-3) I, II

Prerequisites: Minimum grade point average of 3.0 and consent of instructor.

Modern developments in civil engineering. See Class Schedule for specific content. Maximum credit six units for any combination of Civil Engineering 496, 499 and 596.

## 499. Special Study (1-3) Cr/NC I, II

Prerequisites: Minimum grade point average of 3.0 and consent of instructor.

Individual study in the area of civil engineering. Maximum credit six units for any combination of Civil Engineering 496, 499 and 596.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

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. (Formerly numbered Civil and Environmental Engineering 521.)

## 525. Design of Steel Structures (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. (Formerly numbered Civil and Environmental Engineering 525.)

## 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.

## 530. Open Channel Hydraulics (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. (Formerly numbered Civil and Environmental Engineering 530.)

## 580. Traffic Engineering Design (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. (Formerly numbered Civil and Environmental Engineering 580.)

## 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 Bulletin of the Graduate Division

For additional courses which are electives in the civil engineering program, refer to "Environmental Engineering" in this section of the catalog.

OFFICE: Adams Humanities 4231
TELEPHONE: (619) 594-5186
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## Faculty

Emeritus: Hamilton, Warren
Chair: Genovese
Professors: Eisner, Genovese
Assistant Professor: Smith
Lecturer: Frey

## Offered by the Department of <br> \section*{Classics and Humanities}

Major in classics with the B.A. degree in liberal arts and sciences. Emphasis in classical humanities.
Emphasis in classical language.
Teaching major in classics (concentration in Latin) for the single subject teaching credential in foreign languages.
Minor in classics.

## The Major

Classics is the study of the languages, literatures, and civilizations of ancient Greece and Rome. These are the oldest European and American traditions of the humanities and the liberal arts. Classics literally means works of the first class or rank, and the profound truths and disciplined forms cultivated by classical authors and artists have assured their works lasting relevance.

All Classics majors take two or more years of Greek or Latin. They may choose the language emphasis that allows them to study one or both languages or they may choose the broader emphasis in classical humanities. There is also a Latin-centered curriculum that prepares them for a teaching career. Classics majors have at their disposal the library, art, and relaxation of the Burnett Classics Seminar Room, and they have access to the audiovisual library of the Schaber Humanities Center. In addition to small language classes, close academic advising, and the fellowship of a small department with diverse interests, Classics majors culminate their studies with a senior seminar.

Although the prime purpose of the Classics major is to satisfy a quest for the original intellectual and artistic values of Western civilization, graduates enjoy a range of professional choices in addition to academic careers in Classics and various humanities disciplines. Classics majors are well prepared for law school, and with supplementary coursework in business, economics, or information systems, a Classics graduate can be very competitive in the business world, especially at the executive level. Classics graduates also have an advantage as editors, librarians, journalists, and technical writers. Opportunities are available in public relations, government, and other fields where general knowledge, perspective, and a facility with language serve not only the public good but one's own success.

## High School Equivalents

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

Secondary school language courses can be used as follows:

1. The first two years of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

In the College of Arts and Letters

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 foreign language requirement.

## Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

## Classics Major

## With the B.A. Degree in Liberal Arts and Sciences (Major Code: 15041)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in classics courses can apply to the degree.

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

A minor is not required with this major.

## Emphasis in Classical Humanities

Preparation for the Major. Classics 101G-202G or 250G; or Classics 101L-202L or 250L; and six units from Classics 140, Comparative Literature 270A, History 105, Humanities 140. (14-16 units)

Students should note that a number of the upper division required and recommended courses listed below have lower division prerequisites, but these prerequisites do not constitute requirements per se for the completion of the major.

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major plus one language course in the major.

Upper Division Writing Requirement. Passing the University Writing Examination or English 508 W or Rhetoric and Writing Studies 305 W or 500 W with a grade of $C$ (2.0) or better.

Major. A minimum of 30 upper division units to include Classics 320, 330, History 502, 503, Humanities 490, and Philosophy 411 (prerequisites waived for students in this major); six units selected from Art 568, Communication 450, History 501, Humanities 402, 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)

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major plus one language course in the major.

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W or Rhetoric and Writing Studies 305 W or 500 W with a grade of $\mathrm{C}(2.0)$ or better.

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 (prerequisites waived for students in this major); 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)
All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education. For students completing the single subject teaching credential program, no more than 48 units in classics can apply to the degree.

This major may be used by students in policy studies or teacher education as an undergraduate major for the B.A. degree in liberal arts and sciences.

## Emphasis in Latin

Preparation for the Major. Classics 101L-202L or Classics 250L; and six units from Classics 140, Comparative Literature 270A, History 105, Humanities 140. (14-16 units)

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major plus one language course in the major.

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W or Rhetoric and Writing Studies 305 W or 500 W with a grade of C (2.0) or better.

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 (prerequisites waived for students in this major).

## 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, to include 16-17 units 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*.
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.


## Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Greek or Latin to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Classics 303G or 303L or the equivalent level of achievement. The usual sequence of course work is either Classics 101G, 202G, and 303G, OR Classics 101L, 202L, and 303L. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

## Courses (class)

Classics includes courses in Greek and Latin as well as nonlanguage courses. Greek course numbers have a G suffix; Latin courses have an $L$ suffix.

No credit will be given for Classics 101G, 202G, 303G, 304G taken out of sequence.

No credit will be given for Classics 101L, 202L, 301L, 303L taken out of sequence.

## LOWER DIVISION COURSES

## 101G. Elementary Greek I (5) I

Introduction to ancient Greek, emphasizing grammatical foundations of Attic and Koine prose. Not open to students who have completed three years of high school ancient Greek unless the third course was completed five or more years ago. Not open to students with credit in Classics 250G.

## 101L. Elementary Latin I (5) I

Introduction to Latin, emphasizing grammatical foundations of classical prose. Not open to students who have completed three years of high school Latin unless the third course was completed five or more years ago. Not open to students with credit in Classics 250L.

## 120. English from Latin and Greek (3)

General philology, emphasizing Latin and Greek bases and their English derivatives. Etymology, word analysis and construction, language history and structure. (Formerly titled "Latin and Greek Word Derivation.")

## 140. Our Classical Heritage <br> (3)

Greek and Roman art, literature, and institutions as reflected in the Western tradition.

## 202G. Elementary Greek II (5) II

Prerequisite: Classics 101G.
Continuation of Greek grammar with selections illustrating syntax and style. Not open to students who have completed four years of high school ancient Greek unless the fourth course was completed five or more years ago. Not open to students with credit in Classics 250G.
202L. Elementary Latin II (5) II
Prerequisite: Classics 101L.
Continuation of Latin grammar with selections illustrating syntax and style. Not open to students who have completed four years of high school Latin unless the fourth course was completed five or more years ago. Not open to students with credit in Classics 250L.

## 250G. Accelerated Elementary Greek <br> (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.

## 250L. Accelerated Elementary Latin (8) S (Offered only in Extension)

Intensive one-semester introduction to Latin, emphasizing basic grammar, vocabulary, syntax. Preparation for Classics 303L. Not open to students who have completed four years of high school Latin unless the fourth course was completed five or more years ago. Not open to students with credit in Classics 101L and 202L.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
C. Experimental Topics in Classics.
G. Experimental Topics in Greek.
L. Experimental Topics in Latin.

## UPPER DIVISION COURSES (Intended for Undergraduates)

## 303G. Readings in Greek Prose (3) I

Prerequisites: Classics 202G or 250G, and completion of the General Education requirement in Foundations II.C., Humanities.

Readings selected from Greek history, philosophy, oratory, and New Testament. Authors such as Xenophon, Plato, Lysias, the Evangelists. Emphasis on rapid reading.

## 303L. Readings in Latin Prose (3) I

Prerequisites: Classics 202L or 250L, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors.

Readings selected from classical Latin history, philosophy, oratory, letters. Authors such as Sallust, Cicero, Pliny the Younger.

## 304G. Readings in Greek Poetry (3) II

Prerequisites: Classics 303G, and completion of the General Education requirement in Foundations II.C., Humanities.

Readings selected from Greek epic, elegy, tragedy. Authors such as Homer, Sophocles, Euripides.

## 304L. Readings in Latin Poetry (3) II

Prerequisites: Classics 303L, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors.

Readings selected from classical Latin epic, lyric, elegy, comedy. Authors such as Vergil, Catullus, Ovid, Plautus.

## 310. Classical Mythology (3)

Prerequisites: Nine units from General Education courses in Foundations II.C., Humanities. Recommended: Rhetoric and Writing Studies 200.

Mythological elements in Greek and Roman art, literature, and religion.

## 320. Classical Literature <br> (3) I

Prerequisites: Nine units from General Education courses in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors. Recommended: Rhetoric and Writing 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.

## 330. Classical Drama (3) II

Prerequisites: Nine units from General Education courses in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors. Recommended: Rhetoric and Writing 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.

## 340. Classical Civilization (3)

Prerequisites: Nine units from General Education courses in Foundations II.C., Humanities. 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.

## 350. Classics and Cinema (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Ancient Greece and Rome as represented in major cinematic productions. Screenplays compared with Greek and Latin sources in English translation.

## 496. Topics in Classical Studies (1-4)

Topics in classical languages, literatures, cultures, and linguistics. May be repeated with new content. See Class Schedule for specific content. Maximum credit nine units. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
C. Topics in Classics.
G. Topics in Greek. Advanced reading in an author, genre, or period, or work in linguistics.
L. Topics in Latin. Advanced reading in an author, genre, or period, or work in linguistics.

## UPPER DIVISION COURSE

(Also Acceptable for Advanced Degrees)

## 599. Special Study (1-3) I, II

Prerequisites: Consent of major or graduate adviser; to be arranged by department chair and instructor. For 599C: Classics 304L or 304G. For 599G: 304G. For 599L: 304L.

Individual study. Maximum credit six units.
C. Special Study in Classics.
G. Special Study in Greek.
L. Special Study in Latin.

# Communication 

In the College of Professional Studies and Fine Arts
OFFICE: Professional Studies and Fine Arts 361
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## Faculty

Emeritus: Adams, Brown, Buckalew, Hartung, Odendahl, Samovar, Sanders, Sorensen
Director: Eadie
The Lionel Van Deerlin Professor of Communication and Public Policy: Eger
Professors: Andersen, J., Andersen, P., Beach, Borden, Broom, Dionisopoulos, Dozier, Eadie, Geist-Martin, Hellweg, Lauzen, Lustig, Mueller, Spitzberg, Wulfemeyer
Associate Professors: Davis, Martin
Assistant Professors: Renegar, Spevak, Zhong
Lecturers: Co, Lockwood, McDaniel, Mouneimne, Ulrich

## 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 studies.
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.
Teaching major in communication for the single subject teaching credential in English/speech with the B.A. degree in applied arts and sciences.
Teaching major in journalism for the single subject teaching credential in English/journalism with the B.A. degree in liberal arts and sciences.
Minor in advertising.
Minor in communication.
Minor in journalism.
Minor in media management.
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.

## Impacted Programs

Programs in the School of Communication are impacted. Students must enter the University under the designated premajor or major code for selected program. To be admitted to the selected program, refer to the program description for specific impacted criteria.

## Communication Major

## B.A. Degree in Liberal Arts and Sciences $O R$ Applied Arts and Sciences (Major Code: 06011)

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 foreign 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 major 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 Studies Program

## With the B.A. Degree in Liberal Arts and Sciences OR Applied Arts and Sciences <br> (Premajor Code: 15060) (Major Code: 15061)

Students in general communication studies explore communication across diverse activities, relationships, organizations, media, and cultures. Courses introduce theory and methods for understanding communication phenomena in critical-cultural, interaction, intercultural, and international contexts. 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. Recognizing the increasingly important need for strong oral and written communication skills, this major is well suited for students planning careers such as sales, training, human resources, media and culture criticism, communication education, international relations, as well as various careers in medical and legal settings. The communication studies major helps prepare students for careers by developing theory and skills for understanding and affecting human communication and culture, ranging from interpersonal to mediated interactions.

Impacted Program. General communication studies is an impacted program and specific criteria are used to admit to the upper division major. Students enter the University under the premajor code (15060). To be admitted to the upper division communication major code (15061), students must meet the following criteria:
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;
c. Complete a minimum of 45 transferable semester units and a maximum of 90 semester units;
d. Have a cumulative grade point average of 2.75 or higher;
e. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
Preparation for the major. General Education oral communication requirement, and six units selected from Communication 160, 200, 204. (6 units)

Foreign Language Requirement (Liberal Arts and Sciences). 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 section of catalog on "Graduation Requirements."

Mathematics Competency Requirement (Applied Arts and Sciences). Competency in mathematics (equivalent to what is normally attained through three consecutive courses of university study), 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.

Upper Division Writing Requirement. Passing the University Writing Examination, or Communication 310W, or Rhetoric and Writing Studies 305 W with a grade of C (2.0) or better.

Major. A minimum of 30 upper division units to include Communication 300, 350; nine units selected from Communication 360, 371, 406, 415, 445, 530, 592; 12 units selected from Communication 301, 302, 305, 307, 309A, 309B, 355, 360, 361, 371, 391, 406, 407, 415, $445,450,452,455,471,479,483,490 B, 491,493,496,499,503,530$, $545,571,580,583,584,589,592,596$; and three upper division units from Communication or Journalism. A minor is required with this major.

## 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 telecommunication and film. 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

With the B.A. Degree in Liberal Arts and Sciences (Premajor Code: 06040) (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 and specific criteria are used to admit to the
upper division major. Students enter the University under the premajor code (06040). To be admitted to the upper division advertising major code (06041), students must meet the following criteria:
a. Complete with a minimum grade point average of 2.85 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. Pass the Grammar, Spelling, and Punctuation (GSP) test;
c. Complete a minimum of 45 transferable semester units and a maximum of 90 semester units;
d. Have a cumulative grade point average of 2.75 or higher;
e. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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)

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Communication 310W with a grade of $C$ (2.0) or better.

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 upper division courses in one of the following allied disciplines: economics, management (see the program coordinator for the approved list of courses), marketing (see the program coordinator for the approved list of courses), political science, psychology, sociology, or other area approved by program coordinator.

## Emphasis in Public Relations

With the B.A. Degree in Liberal Arts and Sciences (Premajor Code: 05990) (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 and specific criteria are used to admit to the upper division major. Students enter the University under the premajor code (05990). To be admitted to the upper division public relations major code (05992), students must meet the following criteria:
a. Complete with a minimum grade point average of 2.85 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. Pass the Grammar, Spelling, and Punctuation (GSP) test;
c. Complete a minimum of 45 transferable semester units and a maximum of 90 semester units;
d. Have a cumulative grade point average of 2.75 or higher;
e. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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)

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Communication 310W with a grade of C (2.0) or better.

Major. A minimum of 30 upper division units to include Communication 300, 310W, 480, 481, 489, 581, 585; three units from Journalism 300, Communication 440, 460; and six 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 upper division courses in one of the following allied disciplines: economics, management (see the program coordinator for the approved list of courses), marketing (see the program coordinator for the approved list of courses), political science, psychology, sociology, or other area approved by program coordinator.

## Journalism Major

## B.A. Degree in Liberal Arts and Sciences

## (Premajor Code: 06020) (Major Code: 06021)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

Journalism 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 on-line 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 and specific criteria are used to admit to the upper division major. Students enter the University under the premajor code (06020). To be admitted to the upper division journalism premajor code (06021), students must meet the following criteria:
a. Complete with a minimum grade point average of 2.85 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. Complete a personal statement to be evaluated by the faculty;
c. Submit two letters of recommendation to be evaluated by the faculty;
d. Pass the Grammar, Spelling, and Punctuation (GSP) test;
e. Complete a minimum of 45 transferable semester units and a maximum of 90 semester units;
f. Have a cumulative grade point average of 2.75 or higher;
g. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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)

Foreign 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 section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Communication 310W with a grade of $C$ (2.0) or better.

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 -level Communication courses. A minor is required with this major.

## Communication Major

In preparation for the Single Subject Teaching Credential in English/Speech
With the B.A. Degree in Applied Arts and Sciences
(Premajor Code: 15070) (Major Code: 15061)
All candidates for a teaching credential must complete all requirements as outlined in the section of this catalog on Policy Studies or Teacher Education. To complete the single subject teaching credential in English/speech, 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).

This major may be used by the students in policy studies or teacher education as an undergraduate major for the B.A. degree in applied arts and sciences.

Impacted Program. The communication major in preparation for the single subject teaching credential in English/speech is designated as an impacted program and specific criteria are used to admit to the upper division major. Students enter the University under the premajor code (15070). To be admitted to the upper division communication major code (15061), students must meet the following criteria:
a. Complete with a minimum grade point average of 2.75 and a grade of $C$ or higher: preparation for the major courses listed in the next section. These courses cannot be taken for credit/no credit ( $\mathrm{Cr} / \mathrm{NC}$ );
b. Complete a minimum of 45 transferable semester units and a maximum of 90 semester units;
c. Have a cumulative grade point average of 2.75 or higher; and
d. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
Preparation for the Major. Communication 103, 160; Linguistics 101; Rhetoric and Writing Studies 100, 200; three units selected from Comparative Literature 270A, 270B, or English 220; three units selected from either Humanities 140 or Theatre 120; three units selected from Communication 200, English 280, 281, Journalism 220, Theatre 115; and six units selected from the following pairs of courses: English 250A and 250B, or English 260A and 260B. (30 units)

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

Major. A minimum of 45 upper division units to include Communication 300, 302 (2 units), 305, 309A (3 units), 361 (1 unit), 371, 503, English 533, Rhetoric and Writing Studies 509; three units selected from Communication $360,445,450,530,589$, or 592 ; three units selected from Comparative Literature 562, Theatre 310, or Theatre 580; three units selected from either Linguistics 420 or 530 ; three units selected from Africana Studies 460, 461, 462, 463, 464, American Indian Studies 430, Chicana and Chicano Studies 335, 464, English 519, 520; three units selected from English 522,523,524, 525 (for students who have completed English 260A or 260B), 560A, 560B (for students who have completed English 250A or 250B); six units selected from any two of the following groupings (select one three unit course from two separate groups): Communication 360, 391, 407, 491; or English 541A, 541B, Theatre 460B; or Communication 408 or one upper division linguistics course. A minor is not required with this major.

## Journalism Major

## In preparation for the Single Subject Teaching Credential in English/Journalism <br> With the B.A. Degree in Liberal Arts and Sciences <br> (Premajor Code: 06020) (Major Code: 06021)

All candidates for a teaching credential must complete all requirements as outlined in the section of this catalog on Policy Studies or Teacher Education. To complete the single subject teaching credential in English/journalism, 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 journalism major in preparation for the single subject teaching credential in English/journalism is designated as an impacted program. Students enter the University under the premajor code (06020). To be admitted to the upper division journalism major in preparation for the single subject teaching credential in English/journalism major code (06021), students must meet the following criteria:
a. Complete with a minimum grade point average of 2.85 and a grade of C or higher: preparation for the major courses listed in the next section. 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. Pass the Grammar, Spelling, and Punctuation (GSP) test;
e. Complete a minimum of 45 transferable semester units and a maximum of 90 semester units;
f. Have a cumulative grade point average of 2.75 or higher; and
g. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
Preparation for the Major. Communication 200; Journalism 220; Linguistics 101; Rhetoric and Writing Studies 100, 200; three units selected from Comparative Literature 270A, 270B, or English 220; three units selected from Humanities 140 or Theatre 120; and six units selected from the following pairs of courses: English 250A and 250B, or 260A and 260B. (27 units)

Foreign 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 section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Communication 310W with a grade of $\mathrm{C}(2.0)$ or better.

Major. A minimum of 57 upper division units to include Communication 300, 310W, 371, 460, 502, English 533, Journalism 300, 315, Rhetoric and Writing Studies 509; 12 units selected from Communication 408, 500, Journalism 420, 425, 441, 470, 490, 530, 550; three units selected from Comparative Literature 562, Theatre 310, 580; six units selected from Communication 360, 391, 407, 491, English 541A, 541B, Theatre 460B, or one upper division linguistics course; three units selected from Linguistics 420 or 530; three units selected from Africana Studies 460, 461, 462, 463, 464, American Indian Studies 430, Chicana and Chicano Studies 335, 464, English 519, 520; three units selected from the following: English 522, 523,524, 525 (for students who took English 260A or 260B), 560A, 560B (for students who took English 250A or 250B).

## 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 passing score on the Grammar, Spelling, and Punctuation (GSP) test.

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, 455, 471, 479, 483, 491, 503, 530, 545, 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 and a grade point average of 2.75 in these courses.

Courses in the minor may not be counted toward the major but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

## 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 passing score on the Grammar, Spelling, and Punctuation (GSP) test.

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.

## Media Management Minor

(Minor Code: 06032)

## No new students will be admitted to this minor.

The minor in media management consists of 21 units to include Communication 200, 310W, 375, 440, 501, 540; and Television, Film and New Media 110 or Journalism 220. Admission to the media management 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 or Television, Film New Media 110 with grades of C (2.0) or better and a grade point average of 2.75 in these courses; and a passing score on the Grammar, Spelling, and Punctuation (GSP) test.

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 passing score on the Grammar, Spelling, and Punctuation (GSP) test.

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.

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## Courses

## LOWER DIVISION COURSES IN COMMUNICATION

 (COMM)90. Improving Speaking Confidence (1) $\mathrm{Cr} / \mathrm{NC} \mathrm{I}$,

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.

## 103. Oral Communication (3) I, II (CAN SPCH 4)

Training in fundamental processes of oral expression; method of obtaining and organizing material; outlining; principles of attention and delivery; practice in construction and delivery of various forms of speeches. Not open to students with credit in Africana Studies 140 or Chicana and Chicano Studies 111A.

## 160. Argumentation (3) I, II (CAN SPCH 6)

Argument as a form of discourse; organizing, supporting, presenting and refuting arguments in a variety of formats; evaluating argument, including common fallacies in reasoning

## 200. Introduction to Mass Communication (3) (CAN JOUR 4)

Mass media and their interrelationships. Media and the consumer Value and function of mass media in contemporary society. Problems and responsibilities.

## 204. Advanced Public Speaking (3)

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.

## 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)

300. Integrating Communication: Theories and Principles

Prerequisite: Upper division standing
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.

## 301. Management of School of Communication

Activities (1) Cr/NC I, II
Two hours of activity.
Prerequisite: Communication 103.
Planning, preparation, and supervision of speech tournaments and other interscholastic activities. Maximum credit two units.

## 302. Contemporary Forensics Problems (2) Cr/NC I, II

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.

## 305. Discipline of Communication (3)

Communication as an academic and professional discipline, its associations and journals, history and traditions, relationships to other disciplines, research methodologies, and careers for graduates. (Formerly numbered Communication 105.)

## 307. Communication in Professional Settings (3)

Prerequisites: Communication 103 and 160 or 204 or 305
Communication principles in professional contexts including interviewing and technical and nontechnical oral presentations. Skill in meeting management.

309A-309B. Workshop (1-3, 1-3) (309A = Cr/NC; 309B = letter grade)
Prerequisites: Communication 103, 204, and 305 or 307 or 361; 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.
310W. Gathering and Reporting Information (3)
Two lectures and two hours of activity.
Prerequisites: Journalism 220 or Television, Film and New Media 110 with grade of $C$ (2.0) or better, and a passing score on the Grammar, Spelling, and Punctuation (GSP) test. Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Communication and Critical Thinking. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript. Limited to majors and minors in Advertising, Journalism, Media Management, and Public Relations, Major Codes: 06041, 06021, 06032, and 05992.

Information gathering and writing for mass communication in information age. Accessing on-line databases, records, and archives; observation; interviewing; and conducting literature reviews, writing presentations designed to inform, persuade, and instruct.

## 350. Communication Methodologies (3)

Prerequisite: Upper division standing.
Study of human communication, from methodological and epistemological perspectives.

## 355. Foundations of Critical and Cultural Study (3)

Prerequisite: Credit or concurrent registration in Communication 300 and 350.

Central concepts, examples, theories, and experiences of critical studies of communication in culture through cultural, rhetorical, and media literature and cases.
360. Argumentation Theory (3)

Prerequisites: Communication 103 and 160.
Approaches to argument and the patterns and problems in argument. Consideration of implications for society. Written and oral reports.
361. Intercollegiate Forensics (1) $\mathbf{C r} / \mathbf{N C ~ I , ~ I I ~}$

Two field trips required.
Prerequisite: Communication 103.
Three hours of activity and two coaching hours to be assigned. Credit for participation in intercollegiate program. Maximum credit four units.
371. Intercultural Communication (3) 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.

## 375. Infrastructure of the Information Age (3) I

Prerequisites: Communication 200 and Television, Film and New Media 365; basic computer literacy.

Technologies and institutions critical to those responsible for communication and information in an information society. Practical experience with on-line computer activities.
391. Parliamentary Procedure (3)

Prerequisite: Communication 103.
Techniques and procedures for formal meeting management, with emphasis on leadership, rules, communication skills and strategies.

## 406. Organizational Communication (3)

Prerequisite: Completion of preparation for the general communication studies program.

The organization as a communication system; role of the organization in persuasive campaigns; communication strategies and problems within the organizational structure.
407. Communicative Perspectives on Interviewing (3)

Prerequisite: Completion of preparation for the general communication studies program.

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.

## 408. Mass Communication and Society (3)

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Social factors underlying nature, functions of mass media. Theories, models, research in media as culture carriers, opinion shapers, other societal interrelationships.

## 409. Women in Mass Communication <br> (3)

Prerequisite: Upper division standing.
Role of women in mass communication including messages about women and employment status of women.

## 415. Nonverbal Communication (3)

Prerequisite: Completion of preparation for the general communication studies program.

Theory and research on nonverbal aspects of communication, with emphasis on codes and functions.

## 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.

## 445. Relational Communication (3)

Prerequisite: Completion of preparation for the general communication studies program.

Theory and application of effective relational communication principles in both intimate and nonintimate contexts. Theoretical and empirical evidence on communication strategies and behaviors in relationship initiation, development, and termination. Relationship of communication behaviors to relational goals.

## 450. Rhetorical Theory (3)

Prerequisite: Completion of preparation for the general communication studies program.

Development of rhetorical theory as a mechanism for generating and understanding public discourse. Theories from ancient Greece to the present.

## 452. Interaction and Gender (3)

Prerequisite: Completion of preparation for the general communication studies program.

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.
455. Conflict Management Communication (3)

Prerequisite: Completion of preparation for the general communication studies program.

Approaches to conflict communication in international, societal, group, institutional, and interpersonal contexts.
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.

## 461. Advertising Creative Development <br> (3) I, II

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.

## 471. Communication Among U.S. Cultures (3)

Prerequisite: Completion of preparation for the general communication studies program and Communication 371.

Effects of code systems, sociocultural forces, geographic influences, cultural patterns, ethnolinguistic identities, and acculturation experiences on interethnic and interracial relationships in the United States.

## 479. Organizational Communication Across Cultures (3)

Prerequisite: Completion of preparation for the general communication studies program.

Cultural and ethnic differences in management styles, communication patterns, intercultural negotiations, leadership techniques, conflict management, and work-related values in organizations.

## 480. Principles of Public Relations (3) I, II

Prerequisite: Upper division standing.
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.

## 481. Public Relations Media and Methods (3) I, II

One lecture and four hours of activity.
Prerequisites: Communication 310 W 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.

## 483. Communication in Virtual Reality (3)

Prerequisite: Completion of preparation for the general communication studies program.

Interpersonal, romantic, commercial, organizational, and entertainment implications of virtual environments.

## 489. Research Methods in Mass Communication (3) II

Prerequisites: 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.

## 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.

## 491. Group Interaction (3)

Prerequisites: Communication 300 and 350.
Research, theory, observation of group emergence, development, relationships, interaction, and decision making across diverse settings.

## 493. Ethnography and Communication (3)

Prerequisite: Completion of preparation for the general communication studies program.

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.

## 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.
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)

500. Current Problems in Mass Communication (3)

Prerequisites: Communication 440, 460, or 480 or Journalism 300; and at least 12 units of upper division coursework in communication.

Problems and topics in mass communication. Ethics, social responsibility, professionalism, multi-cultural issues, international media systems and audiences, global markets, and technology.

## 501. Management of Telecommunications Systems (3) II

Prerequisite: Communication 375 or 440 or admission to the graduate program. Proof of completion of prerequisite required: Copy of transcript.

Organization and administration of telecommunications systems, with emphasis on structure, policy environment, and principal institutions affecting telecommunications industries.

## 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.

## 503. Instructional Communication (3)

Prerequisites: Communication 160 and 305. 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.

## 505. Government and Telecommunications (3) II

Prerequisite: Twelve upper division units in communication.
Responsibilities of telecommunication organizations as prescribed by law, government policies and regulations, and significant court decisions.

## 506. Advertising and Society (3)

Prerequisites: Communication 300 and 350.
Theoretical and philosophical analysis of advertising in modern society
530. Conversational Interaction (3)

Prerequisite: Completion of preparation for the general communication studies program or admission to the graduate program.

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
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. Limited to Media Management majors and minors, Major Code: 06032

Applying research in cable, film, radio, television and telecommunications management. Designs, methodologies, analyses, applications of audience, programming, and advertising research.

## 545. Communication and Rhetorical Movements (3)

Prerequisite: Completion of preparation for the general communication studies program or admission to the graduate program.

Historical perspective of role of communication in social change in rhetorical movements and social change.
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.

## 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.

## 571. Intercultural Communication Theory (3)

Prerequisite: Completion of preparation for the general communication studies program and Communication 371, or admission to the graduate program.

Theories of cross-cultural and intercultural communication, including ethnic identity, communication competence, and cultural values.
574. International Advertising (3)

Prerequisites: Communication 300, 350, and 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.

## 575. Technological Trends in Telecommunication (3)

Prerequisite: Limited to Major Codes: 06011, 06021, 06031, 06032, 06041, 05992, 06033, or admission to graduate program.

Developments and trends in telecommunication and related technology, with implications for the future. Practical experience with online computer activities
580. Communication and Politics (3)

Prerequisites: Communication 160 and 305. Proof of completion of prerequisites required: Copy of transcript

Contemporary political communication events and processes, with a focus on speeches, debates, and campaigns.
581. Public Relations Research (3)

Two lectures and two hours of activity.
Prerequisites: Communication 310 W and 480 with grades of $C$ (2.0) or better and 489. 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.
583. Medical Interaction (3)

Prerequisites: Communication 300 and 350.
Theoretical and applied approaches to health communication including interactional patterns among doctors, nurses, patients, family members, therapists, counselors, and clients.

## 584. Legal Interaction (3)

Prerequisites: Communication 300 and 350.
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.

## 585. Professional Practices in Public Relations (3) II

Prerequisites: Communication 581 and credit or concurrent registration in Communication 481.

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.
589. Ethical Issues in Communication (3)

Prerequisites: Communication 160 and 305. Proof of completion of prerequisites required: Copy of transcript.

Classical and modern ethical concepts and issues in communication.
591. International Telecommunications
(3) I

Prerequisite: Twelve upper division units in School of Communication or admission to the graduate program.

Comparative study of economic, social, political determinants of broadcasting, and telecommunication systems around the world.

## 592. Persuasion (3)

Prerequisite: Communication 103. Open to majors and nonmajors.
Key variables and theories in the persuasion process: persuasive sources, messages, receiver variables, propaganda, brainwashing, cognitive, behavioral, and social theories of persuasion. Not applicable to the M.A. degree in communication.

## 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)

220. Writing for the Mass Media (3) (CAN JOUR 2)

One lecture and four hours of activity.
Prerequisites: Sophomore standing; ability to type; and a passing score on the Grammar, Spelling, and Punctuation (GSP) test. Proof of completion of prerequisites required: GSP 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: GSP test score as applicable and copies of transcripts.

## 300. Principles of Journalism (3)

Prerequisite: Upper division standing.
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.

## 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; ability to type; credit or concurrent registration in Journalism 300 and Communication 310W; and a passing score on the Grammar, Spelling, and Punctuation (GSP) test.

Specialized writing and editing techniques for news media. Field and laboratory practice.

## 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; ability to type: and a passing score on the Grammar, Spelling, and Punctuation (GSP) test.

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.
425. Editorial and Critical Writing (3)

Prerequisites: Journalism 420; upper division standing; and a passing score on the Grammar, Spelling, and Punctuation (GSP) test.

Principles and practices in editorial and critical writing. Editorials, columns and commentary. Analysis and interpretation.

## 441. Magazine Article Writing (3) I, II

Prerequisite: Communication 310W.
Planning, gathering material, writing and marketing articles for specialized and general publications. Production of expository articles and marketing of at least one.

## 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 $\mathrm{C}(2.0)$ in each course; or Television, Film and New Media 110; upper division standing; ability to type; a passing score on the Grammar, Spelling, and Punctuation (GSP) test.

Application of radio and television news writing principles and techniques. Emphasis in news script writing using audio and video.

## 490. Internship in Journalism (1-3) $\mathrm{Cr} / \mathrm{NC}$

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.

## 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.

## 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)

529. Investigative Reporting (3)

One lecture and four hours of activity.
Prerequisites: Journalism 420 with minimum grade of $C$ (2.0); upper division standing; and a passing score on the Grammar, Spelling, and Punctuation (GSP) test.

Development of articles of substance and depth in specialized areas. Research, analysis and interpretation of complex issues in the news. Special problems of the sustained, reportorial effort. Field and laboratory practice.

## 530. 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.

## 550. News Production (3)

One lecture and four hours of activity.
Prerequisites: Journalism 420 with minimum grade of $C$ (2.0); and a passing score on the Grammar, Spelling, and Punctuation (GSP) test.

News production principles and techniques. Field and laboratory practice.

GRADUATE COURSES Refer to Bulletin of the Graduate Division.

[^16]
# Community Health Education 

In the College of Health and Human Services
OFFICE: Hardy Tower 119
TELEPHONE: (619) 594-6317

## Faculty

Emeritus: Barnes, Boskin, Burgess, Kessler, Kitzinger, McTaggart, Noto, Sorochan, Senn
Professor: Chang
Lecturers: Gresham, Kreisworth

## Offered by the Graduate School of Public Health

Major in health science with the B.S. degree in applied arts and sciences.

Emphasis in community health education.
Minor in health science.

## The Major

Health education is becoming increasingly accepted as an important and economical tool for promoting health behaviors among people. Despite the vast array of preventive, therapeutic, and rehabilitative facilities developed by medical science, human health continues to depend largely on translating knowledge into individual behaviors and lifestyles. Education designed to encourage appropriate health behaviors can effectively prevent much suffering and disability. The Health Science major with an emphasis in Community Health Education trains students to develop, implement and assess health education programs in a variety of settings for different target groups. The major prepares entry-level health educators for positions in government, hospitals, clinics and private/ voluntary health agencies.

Preparatory coursework for this interdisciplinary major includes courses in community health education, communication, nutrition, psychology, sociology, zoology, chemistry, microbiology and mathematics. Career opportunities vary depending on funding, geographic location, population shifts, health status and disease patterns. Bilingual and bicultural skills are widely needed in the job market.

## Impacted Program

The health science major with an emphasis in community health education is an impacted program. Students must enter the University under the health science premajor code (12010). To be admitted to the emphasis in community health education, students must meet the following criteria:
a. Complete with a grade of B or higher: Community Health Education 290 and 292. These courses cannot be taken for credit/ no credit ( $\mathrm{Cr} / \mathrm{NC}$ );
b. Clear the competency requirements in writing. Refer to Graduation Requirements section of this catalog for details;
c. Submit a written statement outlining career goals and personal motivation for entering the health field;
d. Have a cumulative GPA of 2.50 or higher;
e. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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 Premajor

Declaration of the Health Science Premajor is only accepted from November 1 to November 30 each year for admission the following fall semester. No applications are accepted for Spring semester.

## Admission to the Major

There are additional requirements for advancement to the major.

1. A grade of " $B$ " or better in Community Health Education 290 and Community Health Education 292.
2. Satisfactory completion of lower division writing competency examination.
3. Overall GPA of 2.50 or better in all classes.
4. Submission of a written statement outlining the student's career goals and motivation for entering the health field.
A point system is used for ranking and evaluating prospective applicants. Fulfillment of the requirements does not automatically secure admission to the major, as only a limited number of applicants can be accepted each Fall semester. Premajors are notified in January (after completing Community Health Education 290 and 292) of their acceptance or rejection.

## Health Science Major

## With the B.S. Degree in Applied Arts and Sciences

 (Premajor Code: 12010) (Major Code: 12011)All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

## Emphasis in Community Health Education

Preparation for the Major. Community Health Education 101, 290, 292; Biology 210*, 212; Chemistry 100 (or Chemistry 130 for students with previous work in chemistry); Communication 103; Nutrition 107; Psychology 101, 270, 271; Sociology 101. (36-37 units)

Upper Division Writing Requirement. Passing the University Writing Examination or Rhetoric and Writing Studies 305W or 503W, or Linguistics 305 W with a grade of $\mathrm{C}(2.0)$ or better.

Major. A minimum of 39 upper division units to include Community Health Education 401, 402, 406, 490, 497 (six units), 560; Biology 336; Educational Technology 532; and twelve units of electives in community health education (Social Work 350 may be substituted for one of the electives).

* Prerequisites waived for students in this major.


## Health Science Minor

The minor in health science consists of a minimum of 18 units, 12 of which must be upper division, selected from Community Health Education 101, 290, 401*, 470, 560, 561.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

[^17]
## Courses (сне)

## LOWER DIVISION COURSES

## 101. Health and Life Style (3) I, II

Major variables in human health experience with attention to personal health assessment and application of health knowledge to health behavior. Not open to students with credit in Community Health Education 301.
290. Health Education as a Profession (3) I

Prerequisites: Declared pre-health science majors and minors only and Community Health Education 101.

Health education and its role in the health system. For students with professional interests in health education.

## 292. Community Health (3) I

Prerequisite: Declared pre-health science majors only.
Community health problems; role of the citizen, the public, and community health agencies in promoting and protecting the health of the community.
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)
331. Crisis Management (3) II

Physical and psychological crisis situations, various procedures and techniques in immediate management and follow-up referrals.

## 345. Safety and Accident Prevention (3)

Prerequisite: Community Health Education 292.
Causes and incidence of accidents with emphasis on role of education, prevention, and injury control.

## 350. Environmental Health Education (3)

Environmental hazards of living and working in this modern technological world, including air, noise, land, food, and water pollution.

## 353. Sexually Transmitted Diseases (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Evolution and occurrence of sexually transmitted diseases worldwide, focusing on biological, medical, psychological, sociocultural, and political factors.

## 362. International Health (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Population dynamics, vital statistics, global disease patterns, and analysis of variations among nations and cultures with respect to health problems and health care services.

## 401. Change Process in the Community (3) I, II

Prerequisites: Community Health Education 290, Psychology 101, Sociology 101, and declared health science majors or minors. Grade of B or better in Community Health Education 290.

Attitude formation, behavior change, decision making, perception, motivation, group behavior, etc., and their relationship to practice of health and human services.
402. Communications in Health Education (3) I,II

Prerequisites: Community Health Education 290, 292, Communication 103, and completion of Upper Division Writing Requirement. Grade of B or better in Community Health Education 290 and 292.

Development and production of health presentations for group and individual levels; including written, oral, and graphic methods.
406. Health Education Methodology (3) I, II

Prerequisite: Community Health Education 401.
Strategies, techniques, and materials for planning and conducting health education. Applications of learning theory in the development and use of educational methodologies in health education.
470. Communicable and Noncommunicable Diseases (3) I, II

Causes, prevention and control of communicable, degenerative and chronic health disorders.
475. Human Sexuality (3)

Examination of the development of sexual values, attitudes, and behavior from infancy to old age.
490. Measurement and Evaluation in Health Education (3) I, II

Prerequisites: Psychology 270, 271; satisfactory completion of the Entry-Level Mathematics requirement. Proof of completion of prerequisites required: Copy of ELM or placement scores or verification of exemption; proof of Cr in General Mathematics Studies 90A or 90B or notification from General Mathematics Studies; copy of transcript.

Measurement in health education; data gathering techniques; organization; presentation and interpretation of data; computer utilization; basic principles of health education programs.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
497. Supervised Field Experience (1-6) I, II

Prerequisites: Senior standing in Community Health Education emphasis; Community Health Education 401, 402, and 406.

Supervised practical experience in local health agencies and/or schools. Maximum credit six units.
499. Special Study (1-3) I, II, S

Prerequisite: Consent of special study adviser.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)
560. Introduction to Public Health (3) I, II

Prerequisite: Community Health Education 290.
Epidemiological methods, behavioral and biological determinants, modes of transmission, risk factors, prevention of common infectious and chronic disease. Evaluation of health information to develop health education programs.

## 561. Health and Medical Care (3) II

Prerequisite: Senior or graduate standing with a major or minor in health education or a closely related area.

Health values, concepts, and attitudes; health products and facilities; hospital care and hospitalization plans; governmental health controls; economic and cultural influences on health and medical care; professional contributions, relationships, and careers; national and international health programs.

## 574. Habit-Forming Substances (3) I

Tobacco, alcohol, and other drugs; their use, misuse and abuse.

## 596. Workshop in Health Education (1-3)

Selected problems in health science are used as a basis for workshop experiences. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596; maximum credit of three units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to Bulletin of the Graduate Division.

# Comparative Literature 

In the College of Arts and Letters

OFFICE: Adams Humanities 4158<br>TELEPHONE: (619) 594-5443<br>FAX: (619) 594-4998<br>EMAIL: EandCL@mail.sdsu.edu<br>WEB SITE: literature.sdsu.edu

## Faculty

Faculty assigned to teach courses in comparative literature are drawn from departments in the College of Arts and Letters.

## Offered by the Department of English and Comparative Literature

Major in comparative literature with the B.A. degree in liberal arts and sciences.
Teaching major in comparative literature for single subject teaching credential in English.
Minor in comparative literature.

## The Major

Comparative literature is the study of literature from around the world, transcending the restrictions of national and linguistic boundaries. Traditionally, comparative study has been based on literary movements, periods and lines of influence, as well as on genres, themes, myths, and legends. In recent years comparative literature has come to include the comparison of literature with other areas of human experience.

Comparative literature offers students the opportunity to study 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. Graduate study in comparative literature may lead to teaching at more advanced levels. The Plan II major has been specifically designed for students who plan to do graduate work in this area.

## Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

## Comparative Literature Major

## With the B.A. Degree in Liberal Arts and Sciences (Major Code: 15031)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in comparative literature and English courses can apply to the degree.

A minor is not required with this major.
Preparation for the Major. Comparative Literature 210, 270A, 270B. (9 units)

Foreign Language Requirement. Plan I: Competency (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 section of catalog on "Graduation Requirements."

## Plan II: See below.

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W, 581W, 584W or Rhetoric and Writing Studies 500W with a grade of C (2.0) or better.

Major. Plan I: General literature. For students who do not intend to enter a graduate program in comparative literature.

Required: A minimum of 33 upper division units to include 18 units in one of the three areas (A, B, and C) below; nine units in American literature, British literature, or creative writing; and an additional six units in comparative literature.

Plan II: For students who intend to enter a graduate program in comparative literature.

Required: A minimum of 30 upper division units to include 18 units in one of the three areas (A, 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 English or American) read in the original language. It is strongly recommended that even those students choosing English or American as their second literature attain competency in a second foreign language.
A. European Literature. Eighteen units selected from the following:

1. Comparative Literature $511,512,513,514$.
2. Up to six units in other, variable-content comparative literature courses with appropriate content approved by the departmental adviser.
3. Up to six units from Art 371, 557, 558, 559, 573A, 573B, 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 $440,445,455,460,530$.
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, 556, 558, 565; 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; Religious Studies 360; Theatre 460A, 460B; and Women's Studies 352, 553.

## Comparative Literature Major

## In preparation for the Single Subject Teaching Credential

 in EnglishWith the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15031)
Preparation for the Major. Comparative Literature 210, 270A, 270B; Linguistics 101; Rhetoric and Writing Studies 100, 200; Humanities 140 or Theatre 120; English 280 or 281; English 250A-250B or 260A-260B; Communication 200 or Journalism 220 or Theatre 115. (33 units)

Foreign 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 section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. English 508W or Rhetoric and Writing Studies 500W with a grade of C (2.0) or better.

Major. A minimum of 42 upper division units to include Comparative Literature 561 or 562 or 563 ; English 533; Linguistics 420 or 530 ; Rhetoric and Writing Studies 509; Theatre 310 or 580. English 560A560B (for those who took English 250A-250B) or six units selected from English 522, 523, 524, 525 (for those who took English 260A260B).

Three units in ethnic literature selected from Africana Studies 365, 460, 461, 462, 463, 464; American Indian Studies 300, 430; Chicana and Chicano Studies 335, 464; English 519, 520.

Three units selected from Communication 360*, 371, 391, 408, $491^{*}$; Linguistics 410, 452, 453, 520, 524, 550*, 551.

Twelve units selected from Comparative Literature major, Plan II, Options A, B, or C; and three additional Comparative Literature elective units.

* Additional prerequisites required.


## Comparative Literature Minor

The minor in comparative literature consists of a minimum of 15 units in comparative literature, 12 units of which must be in upper division courses. The 12 units of upper division work must be selected, with adviser's approval, from within one of the following interest areas:

European Literature: Comparative Literature 511, 512, 513, 514.
Asian, African, and Latin American Literature: Comparative Literature 440, 445, 455, 460, 530.

Comparative Literary Theory (Theory of literature, genre study, literature in relation to other arts and disciplines): Comparative Literature 561, 562, 563, 580, 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)

## LOWER DIVISION COURSES

## 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

## 270A-270B. World Literature (3-3) 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.

## 296. Topics in Comparative Literature (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)

405. The Bible as Literature (3) I, II
(Same course as English 405.)
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Prose and poetry of the King James version.

## 440. African Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Comparative study of African literature as well as Black literature of North and South America and the Caribbean; intercontinental influences and the theme of Black identity.
445. Modern Latin American Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Reading selections from major Latin American authors.

## 455. Classical Asian Literature (3)

Prerequisites: Comparative Literature 270A or 270B or English 220; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Survey of one or more Asian literatures from the classical period of China, Japan, India, Korea, and others.

## 460. Modern Asian Literature (3)

Prerequisites: Comparative Literature 270A or 270B or English 220; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Survey of one or more Asian literatures from the modern period of China, Japan, India, Korea, the Philippines, Vietnam, and others.

## 470. Folk Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Studies in the ballad, bardic poetry, oral and popular literature and folklore.

## 490. Literary Movements (3)

A movement or theme in world literature-such as symbolism, existentialism, revolution, or romantic love. See Class Schedule for specific content.

## 499. Special Study (1-3) Cr/NC I, II

Prerequisites: Consent of instructor and approval of department chair.

Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)
Prerequisite for all 500 -level courses: Six units in literature or three units in literature and three units in a related area appropriate to the course in question.
511. Continental Renaissance
(3)

Representative selections from authors of the Renaissance period in continental Europe.

## 512. Seventeenth and Eighteenth Century European Literature (3)

Selected works by European writers prior to 1800.
513. Nineteenth Century European Literature (3)

Selected works by European writers between 1800 and 1900.

## 514. Modern European Literature (3)

Selected works by European writers of the twentieth century.

## 530. Topics in Asian Literature (3)

Specialized study of a selected topic in Asian literature. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

## 561. Fiction (3)

A comparative approach to themes and forms in fiction (novel and short story). Focus of course to be set by instructor. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

## 562. Drama (3)

Forms and themes in drama. Focus of course to be set by instructor. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

## 563. Poetry (3)

A comparative approach to themes and forms in poetry. Focus of course to be set by instructor. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

## 571. Literary Use of Legend (3)

Literary treatment of such legendary figures as Don Juan, Faust, and Ulysses, in a wide range of literature and genres. See Class Schedule for specific content.

## 577. Major Individual Authors (3)

In-depth study of the works of a major author, such as Dante, Murasaki, or Dostoyevsky. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

## 580. Concepts in Comparative Studies (3)

Basic concepts in comparative studies in literature (e.g., influence, movement, figure, genre, etc.); their validity, usefulness, and limitations. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

## 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.

## 595. Literature and Aesthetics <br> (3)

Prerequisite: Six upper division units in literature or any of the other arts.

Theoretical and experiential investigation of relationships between literature and the other arts; literary works in context of an inquiry into aesthetics.

## 596. Topics in Comparative Literature <br> (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 

OFFICE: Engineering 426
TELEPHONE: (619) 594-5718
EMAIL: compe@engineering.sdsu.edu

## Faculty

Emeritus: Iosupovici, Panos
Chair: Tummala
Coordinator for Computer Engineering: Marino
Professors: Gupta, harris, f., Harris, J., Lee, Marino, Tummala
Associate Professor: Ozturk
Assistant Professors: Park, Rasmussen

## Offered by the Department of

Electrical and Computer Engineering
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 Accreditation Board for Engineering and Technology, Inc., unless the student successfully completes the first 12 units of engineering work attempted at this University. At that time, and upon recommendation of the department, credit will be given for the unaccredited work.

## General Education

Students will complete a minimum of 50 units in General Education, to include a minimum of nine upper division units taken after attaining junior class standing. 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

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

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.


#### Abstract

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.

## Educational Objectives

The objectives of the computer engineering program are to provide graduates with:
A. The ability to function as knowledgeable professionals in computer engineering, and as responsible and productive members of society;
B. The fundamental background and critical thinking skills that will facilitate continued learning in either an academic or professional setting;
C. A general education that provides a background for understanding ethical and social issues related to the profession.

## 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. (40 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.)

Upper Division Writing Requirement. Each student must pass the University Writing Examination or complete one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 50 upper division units to include Computer Engineering 361, 375, 460, 470, 470L, 475; Electrical Engineering 300, 310, 330, 330L, 410; one approved elective in mathematics or science (3 units); three engineering design electives selected from Computer Engineering 490A-490B, 560, 561, 565, 572, Electrical Engineering 530, 539, 556, 570, 581 or other approved elective (9 units); three approved technical electives in computer engineering, computer science, or electrical engineering (9 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.

Elective courses are subject to the approval of the faculty adviser and the department chair. The student must file an approved Master Plan during the first semester of the junior year specifying the electives selected. Changes in the Master Plan are permitted at any time, with approval of the department chair.

| FRESHMAN YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall Semester | Units | Spring Semester | Units |
| Mathematics 150, Calculus I General Education* | 5 | COMPE 160, Intro. to | 3 |
|  | 12 | Mathematics 151, Cal | 4 |
|  |  | Physics 195, Principl | 3 |
|  |  | General Education*. |  |
|  | 17 |  | 16 |
|  | SOPHOMORE YEAR |  |  |
| Fall Semester | Units | Spring Semester | Units |
| COMPE 270, Digital Systems ................. | 3 | COMPE 260, Data Str |  |
| Engineering 280, Methods of Analysis ..... | 3 | Oriented Programm | 3 |
| Mathematics 245, Discrete Mathematics.. | 3 | COMPE 271, Compu | 3 |
| Physics 196, 196L Principles of Physics... | 4 | Mathematics 254, Intro | 3 |
| American Institutions*. | 3 | EE 210, Circuit Analys | 3 |
|  |  | General Education*.. | 3 |
|  | 16 |  | 15 |
|  | JUNIOR YEAR |  |  |
| Fall Semester | Units | Spring Semester | Units |
| COMPE 375, Embedded Systems Prog. .. | 3 | COMPE 361, Window | 3 |
| COMPE 470, Digital Circuits ................... | 3 | COMPE 470L, Digital | 1 |
| EE 300, Comp. and Stat. Methods........... | 3 | EE 410, Signals and | 3 |
| EE 310, Circuit Analysis II ....................... | 3 | Technical Elective+ | 3 |
| EE 330, 330L, Fund. Engr. Electronics...... | 4 | General Education*.. | 6 |
|  | 16 |  | 16 |
|  | SENIOR YEAR |  |  |
| Fall Semester | Units | Spring Semester | Units |
| COMPE 460, Software Design and Engr... | 3 | Technical Electives+ | 9 |
| COMPE 475, Microprocessors ................ | 3 | General Education*. | 6 |
| Technical Electives+.............................. | 9 |  |  |
| American Institutions*........................... | 3 |  |  |
|  | 18 |  | 15 |

[^18]
## Courses (compe)

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

160. Introduction to Computer Programming (3) I, II

Two lectures and three hours of laboratory.
Prerequisite: Credit or concurrent registration in Mathematics 150.
Editors, compilers, and operating systems. Fundamentals of computer programming using C++ language. Binary representation of information. Selection and iteration structures. Functions. Arrays. Pointers. File io. Scope and duration of variables. Systematic design and development of computer programs.

## 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.

## 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.

## 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)

361. Windows Programming (3)

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.
375. Embedded Systems Programming (3)

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.

## 460. Software Design and Engineering (3)

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. (Formerly numbered Computer Engineering 360.)
470. Digital Circuits (3) I

Prerequisite: Computer Engineering 270.
Design of digital electronic systems using commercially available high-speed digital devices and circuits.

470L. Digital Logic Laboratory (1) I, II
Three hours of laboratory.
Prerequisites: Computer Engineering 470 and Electrical Engineering 330L.

Hands-on experience in characterization and application of standard digital integrated circuit devices.

## 475. Microprocessors (3) II

Prerequisites: Computer Engineering 271 and 470.
Bus design, memory design, interrupt structure, and input/output for microprocessor-based systems.
490A-490B. Senior Project (490A: 1 unit, Cr/NC) (490B: 2 units) Computer Engineering 490A: Three hours of activity. Computer Engineering 490B: Six hours of activity.

Prerequisites: Computer Engineering 361, 375, and prior approval of project by supervising instructor.

Supervised team design projects. Each team completes a single design project in the two-semester sequence. Written and oral reports.

## 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.
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)

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.

## 561. Advanced Windows Programming (3)

Prerequisite: Computer Engineering 361.
Win32 application programmers interface. Microsoft foundation classes. Memory management. Multitasking and multithreading. The clipboard. Dynamic data exchange. Dynamic link libraries. Object linking and embedding. Active template library. ActiveX controls. Internet programming. (Formerly numbered Computer Engineering 577 and 577L.)

## 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.

## 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.

## 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 

In the College of Sciences

OFFICE: Geology/Mathematics/Computer Science 413
TELEPHONE: (619) 594-6191

The B.S. degree in Computer Science is accredited by the Computer Science Accreditation Commission of the Computing Sciences Accreditation Board.

## Faculty

Emeritus: Baase-Mayers, Marovac, Vinge
Chair: Beck
Professors: Anantha, Beck, Carroll, Donald, Stewart, Swiniarski, Tarokh, Vuskovic
Associate Professors: Eckberg, Valafar, Whitney
Assistant Professors: Lewis, Roch
Lecturers: Bajic, Riggins
Adjunct: Root

## 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.

## Impacted Program

The computer science major is an impacted program. Students must enter the University under the computer science premajor code (07010). To be admitted to the computer science major, students must meet the following criteria:
a. Complete with a grade of C or higher: Computer Science 107, 108, 237; and Mathematics 150, 151, 245. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete lower division General Education requirements in written and oral communication and critical thinking in the English language;
c. Have a cumulative GPA of 2.75 or higher;
d. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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).

## Computer Science Major

With the B.S. Degree in Applied Arts and Sciences (Premajor Code: 07010) (Major Code: 07011)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required for this major.
Preparation for the Major. Computer Science 107, 108, 237; Mathematics 150, 151, 245, 254; Statistics 250; Physics 195, 195L, 196, 196L, or Chemistry 200, 201, or Biology 201A, 201B; and two additional science courses selected with approval of a computer science adviser. These must be courses for sciences or engineering majors or have a strong emphasis on quantitative methods. (41-43 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 37 upper division units to include Computer Science 310, 320, 370, 440, 490, 530, 560, 570; at least one course selected from Mathematics 541, 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. The student must complete an outline for the major and file a copy signed by a major adviser 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.

Students must officially declare the minor before taking any upper division computer science courses. To be admitted to the computer science minor, students must meet the following criteria:
a. Complete Computer Science 107 and 108 with a grade of C (2.0) or higher;
b. Complete lower division General Education requirements in written and oral communication and critical thinking in the English language;
c. Have a cumulative GPA of 2.75 or higher; and
d. Complete at least nine units in the department of the student's major, including at least six units of upper division courses.
Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed 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 107, 108, 220, 310, 320, 503, 514, 520, 535, 551, 575 and 12-15 units selected from Geography 381, $484,488,584,585,588$. Courses with relevant content 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.

* Additional prerequisites required for this certificate.


## Courses (cs)

## LOWER DIVISION COURSES

101. Information Technology and Society (3)

Information technology for non-majors. Basic concepts and definitions needed for elementary understanding of computers, software, telecommunications and the Internet, information systems, and social impact of information technology.

## 105. Visual Basic Programming (3)

Programming and problem solving using Visual Basic programming language on the PC.

## 106. Introduction to Computer Programming with FORTRAN (3) I, II (CAN CSCI 4)

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.

## 107. Introduction to Computer Programming (3) I, II, S

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.

## 108. Intermediate Computer Programming (3) I, II, S

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.

## 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.
220. UNIX and the C Programming Language (3) I, II

Prerequisite: Computer Science 108.
Introduction to the UNIX operating system: shell programming, major system services and utilities. The C language: its features and their significance in the UNIX programming environment.
237. Machine Organization and Assembly Language (3) I, II

Prerequisite: Computer Science 108.
General concepts of machine and assembly language, data representation, looping and addressing techniques, arrays, subroutines, macros. Extensive assembly language programming.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 299. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

 (Intended for Undergraduates)310. Data Structures (3) I, II, S

Prerequisites: Computer Science 108 and Mathematics 245.
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.

## 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.

## 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.

## 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.

## 435. Advanced Java Programming (3)

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.
470. UNIX System Administration (3)

Prerequisite: Computer Science 220.
Installing the UNIX operating system on a UNIX workstation, adding user accounts, backing up and restoring user files, installing windows, adding network capabilities, adding printers and other peripherals.
490. Senior Seminar (1)

Prerequisite: Fifteen units of upper division computer science courses.

Preparation and delivery of oral presentations on advanced topics in computer science. General principles of organization and style appropriate for presenting such material.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
498. Directed Readings in Computer Science Literature (1)

Prerequisite: Credit or concurrent registration in the upper division computer science course in which readings are to be undertaken.

Individually directed readings in computer science literature. May be repeated for a maximum of three units, taken each time from a different instructor.
499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

## (Also Acceptable for Advanced Degrees)

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.
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.

## 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.

## 514. Database Theory and Implementation (3)

Prerequisites: Computer Science 310 and Mathematics 245.
Database systems architecture. Storage structures and access techniques. Relational model, relational algebra and calculus, normalization of relations, hierarchical and network models. Current database systems.

## 520. Advanced Programming Languages (3)

Prerequisites: Computer Science 237, 310, and 320.
Object oriented programming, concurrent programming, logic programming. Implementation issues.
524. Compiler Construction (3)

Prerequisites: Computer Science 237, 310, and 320.
Syntactical specification of languages. Scanners and parsers. Precedence grammars. Run-time storage organization. Code generation and optimization.
530. Systems Programming (3) I, II

Prerequisites: Computer Science 237 and 310.
Design and implementation of 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.

## 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.

## 535. Object-Oriented Programming and Design

Prerequisites: Computer Science 310 and 320.
Basic concepts of object-oriented programming; classes, objects, messages, data abstraction, inheritance, encapsulation. Object-oriented design methodology.
550. Artificial Intelligence (3)

Prerequisites: Computer Science 108 and either Mathematics 245 or 523.

Heuristic approaches to problem solving. Systematic methods of search of the problem state space. Theorem proving by machine. Resolution principle and its applications.

## 551. User Interface Environments (3)

Prerequisites: Computer Science 310 and 320.
Design of user-machine interfaces in interactive systems. Problems faced by user of an interactive system; basic issues and principles involved in design and implementation of good and friendly user-machine graphical interfaces.

## 552. Artificial Intelligence II (3) II

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.

## 553. Neural Networks (3)

Prerequisites: Computer Science 320 and Mathematics 254.
Principles of neural networks, their theory and applications.

## 555. Raster Computer Graphics (3)

Prerequisite: Computer Science 551.
Bit map graphics, algorithms to connect between different formats and enhancement of pictures.
556. Robotics: Mathematics, Programming, and Control (3)

Prerequisites: Computer Science 320, Mathematics 254, knowledge of the $C$ programming language.

Robotic systems including manipulators, actuators, sensors, and controllers. Algebraic methods for spatial description of solid objects, manipulator kinematics and control. Robot programming languages and robot programming systems.

## 557. Computer Control Systems (3)

Prerequisites: Computer Science 310 and Mathematics 254.
Analysis and programming of real-time computer control systems, implementation of digital controllers including programming, intelligent control systems and fuzzy control.

## 558. Computer Simulation (3)

Prerequisites: Computer Science 310 and 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.

## 559. Computer Vision (3)

Prerequisites: Computer Science 310 and Mathematics 254.
Algorithms and computer methods for processing of images. Visual perception as a computational problem, image formation, characterization of images, feature extraction, regional and edge detection, computer architectures for machine vision.

## 560. Algorithms and Their Analysis (3) I, II

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.

## 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.

## 562. Automata Theory (3)

Prerequisite: Mathematics 245 or 521A.
Definition of finite automata. Classification of finite automaton definable languages. Minimization of finite automata. Nondeterministic finite automata. Sequential machines with output. Regular sets and expressions. Introduction to grammars.
564. Introduction to Computability (3)

Prerequisite: Mathematics 245 or 523.
Definition of algorithm by abstract (Turing) machines. Universal Turing machines. Primitive recursive and recursive functions. The equivalence of the computational power of Turing machines and recursive functions. Limitations and capabilities of computing machines; the halting problem.

## 566. Queuing Theory

(3)

Prerequisites: Computer Science 108 and Statistics 550.
Performance prediction of computer networks and other systems (e.g., inventory control, customer service lines) via queuing theory techniques. Operational analysis.
570. Operating Systems (3) I, II

Prerequisites: Computer Science 310, 370, and knowledge of the C programming language.

File systems, processes, CPU scheduling, concurrent programming, memory management, protection. Relationship between the operating system and underlying architecture. Not acceptable for the M.S. degree in Computer Science.

## 571. UNIX Network Administration (3)

Prerequisite: Computer Science 470.
Network administration for UNIX workstations and servers. File server, mail server, boot sever, and Web server. TC/IP administration, routing, subnetting, and NIS plus data base.

## 572. Microprocessor Architecture (3)

Prerequisites: Computer Science 370 and knowledge of the C programming language.

Architecture of state-of-the-art microprocessor. Internal pipeline, internal cache, external cache, and memory management. Programming a uniprocessor. Communication among computers in a distributed environment. Architecture and programming of a multiprocessor system.

## 574. Computer Security (3)

Prerequisites: Computer Science 310; Mathematics 245; 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.

## 575. Supercomputing for the Sciences (3)

Prerequisite: Extensive programming background in Fortran or C.
Interdisciplinary course, intended for all science and engineering majors. Advanced computing techniques developed for supercomputers. Overview of architecture, software tools, scientific computing and communications. Hands-on experience with CRAY.
576. Computer Networks and Distributed Systems (3)

Prerequisite: Credit or concurrent registration in Computer Science 570.

Local area networks and wide area networks; mechanisms for interprocess communication; rules for distribution of data and program functions.

## 578. ATM Networking (3)

Prerequisite: Computer Science 576.
Asynchronous transfer mode communication networks, including fundamental concepts, technologies, architectures, infrastructures, and interoperability of legacy technologies. Review of basic communication and networking concepts, including transmission media, multiplexing, link control protocols, and wide area networks.

## 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.

## 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.

## 596. Advanced Topics in Computer Science (1-4) I, II <br> 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 Bulletin of the Graduate Division.

## For additional courses useful to computer scientists, see:

Mathematics 541. | Introduction to Numerical |
| :--- |
| Analysis and Computing |

Mathematics 542. | Introduction to Numerical |
| :--- |
| Solutions of Differential |
| Equations |

Mathematics 561. Applied Graph Theory
Mathematics 579. Combinatorics

# Counseling and School Psychology 

In the College of Education

Accredited by the California Commission on Teacher Credentialing and the National Association of School Psychologists.

## Faculty

Emeritus: Cummins, Feinberg, Grant-Henry, Hawley, Howard, Malcolm, Miller, Ramage, Thompson
Chair: Robinson-Zañartu
Professors: Cook-Morales, Ingraham, Robinson-Zañartu, Senour
Associate Professors: Monk, O'Shaughnessy, Terry-Guyer
Assistant Professors: Green, Guanipa, Taylor
Lecturer: Raphael

## Offered by the Department

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.
Concentration in school psychology.
Pupil personnel:
School counseling credential.
School psychology credential.

## Courses (CSP)

## UPPER DIVISION COURSES

(Intended for Undergraduates)
310. Group Leadership in Educational Settings (3)

Two lectures and two hours of activity.
Prerequisites: Anthropology 102 or Psychology 101 or Sociology 101; and completion of 60 units.

Identifying, classifying, and analyzing the components essential to development of leadership in educational settings. Simulation activities assist students in acquisition of group leadership skills.

## 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.

## 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.

## 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.

# ${ }^{6}$ The reward of a thing well done is to have done it." 

- Ralph Waldo Emerson

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.

## 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)

## 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 Bulletin of the Graduate Division.

# Criminal Justice Administration 

OFFICE: Professional Studies and Fine Arts 100
TELEPHONE: (619) 594-6224
FAX: (619) 594-1165

## Faculty

Emeritus: Boostrom, Gitchoff, Henderson
Director: Rea
Professor: Sutton
Associate Professors: Pearl, Sabath
Assistant Professors: Hughes, Mclllwain, Nurge, Zellerer

## Offered by the School of Public Administration and Urban Studies

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

## The Major

The purpose of the criminal justice administration program is to provide current and future decision-makers in criminal justice with the foundation for critical and balanced as well as responsible and effective administrative responses. As the systems designed to deliver justice services are continually asked to accomplish more with fewer resources, the need for able and professional administrators becomes more and more pressing. The mission of the department is to provide graduates with the background and ability to meet this challenge.

Criminal justice administration majors with the B.S. degree have typically found employment at entry-level positions in local, state, and federal criminal justice agencies or in private business or security positions (e.g., loss prevention officer). At the local level, graduates can begin service in various capacities with police, sheriff's and marshal's offices, probation, county supervisors, city administration, and criminal justice planning agencies. At the state level, graduates may enter the Highway Patrol, Alcohol Beverage Control, Attorney General's Office, Department of Corrections, California Youth Authority, or related agencies. At the federal level, graduates are employed in agencies such as the FBI, Customs Service, Border Patrol, Secret Service, Drug Enforcement Agency, Naval Intelligence Service, Defense Investigative Services, CIA, and Department of Agriculture.

A significant number of graduates of this degree program also enter law school after graduation.

## Impacted Program

The criminal justice administration major is an impacted program. Students must enter the University under the criminal justice administration premajor code (21050). 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 and SDSU GPA of 2.40 or higher; and
d. Students not meeting the minimum GPA requirements may petition for special consideration;
e. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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).

## Criminal Justice Administration Major

## With the B.S. Degree in Applied Arts and Sciences

## (Premajor Code: 21050) (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.
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, Psychology 270, Statistics 250). (15 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 36 upper division units to include Public Administration 301; Criminal Justice Administration 301; 497 or 498, 540; six units (in addition to Public Administration 301) selected from the following upper division public administration courses: Public Administration 310, 330, 340, 440, 450, 460, 485, 496, 540. Eighteen additional upper division units selected with the approval of a department adviser, to include at least one course from each of the following areas. At least nine upper division units must be criminal justice administration courses.

Area I: Law and Society. Criminal Justice Administration 320, 420, 520; Anthropology 430; Political Science 346, 347A, 347B, 348.

Area II: Criminal Justice Systems and Organizations. Criminal Justice Administration 305, 310, 321, 330, 333, 430, 510, 531, 543; Political Science 335; Psychology 340, 350, 365; Social Work 360; Sociology 410, 443, 445, 543.

Area III: Social Community/International Justice. Criminal Justice Administration 321, 330, 502, 531; Africana Studies 380, 452; Anthropology 430; Chicana and Chicano Studies 320, 355; Political Science 577; Sociology 444; Women's Studies 370, 572.

A master plan for courses in the major must be approved by a faculty adviser. It is recommended that the student complete a preliminary master plan of courses as soon as possible after declaring the major.

## Courses (CJA)

LOWER DIVISION COURSE

## 200. Introduction to Criminal Justice Administration <br> (3) I, II (CAN AJ 2)

Survey of the structure, functions and problems of controlling criminal activity while preserving individual freedoms in a democratic society.

## UPPER DIVISION COURSES (Intended for Undergraduates)

301. Social Control, Social Policy and Administration of Justice (3) I, II
Prerequisites: Criminal Justice Administration 200 with a grade of C or better and completion of all other lower division preparation for the major courses.

Interrelationship of social control, social policy and administration of criminal justice in contemporary American society.

## 305. Professions, Practices and Ethics in Criminal Justice Administration (3)

Prerequisite: Criminal Justice Administration 301.
Professional roles and responsibilities of practitioners and administrators in criminal justice agencies, including consideration of the ethical responsibilities of criminal justice practitioners.

## 310. Law Enforcement Administration (3)

Administrative relationships within the criminal justice process with special reference to problems of courts and police and probation agencies.

## 320. The Administration of Criminal Law (3)

Prerequisite: Criminal Justice Administration 301.
Constitutional law principles as implemented in criminal courts with emphasis on critical analysis of factual situations and the argument of legal issues in criminal cases from both defense and prosecution perspectives.
321. Juvenile Justice Administration (3)

Prerequisite: Criminal Justice Administration 301.
Assessment of the structure and functions of agencies and institutions which comprise the juvenile justice system in America; evolution of policies and programs for prevention of delinquency and treatment of the juvenile offender.

## 330. Contemporary Correctional Administration (3)

Prerequisite: Criminal Justice Administration 301.
Contemporary policies and practices of local, state and federal correctional agencies, the influence of reform movements, and the interrelationship of corrections with other criminal justice system components.

## 333. Judicial Administration (3)

Prerequisites: Criminal Justice Administration 301 and Public Administration 301.

Review of significant developments at the state and federal levels, including court unification and financing, leadership, congestion, training, selection, tenure, discipline, removal and retirement of courtrelated personnel; and technological applications.
420. Constitutional Issues in the Administration of Justice

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.

## 430. Prisons in Theory and Practice (3) Cr/NC (Offered only in Extension)

Two lectures and three hours of supervised activity.
Prerequisites: Criminal Justice Administration 200 and consent of instructor.

Design and operation of state and federal prisons in California from the perspective of staff and inmates. Onsite study and critique of facilities.
496. Selected Topics in Criminal Justice Administration (1-3)

Selected current topics in criminal justice administration. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units. (Formerly numbered Criminal Justice Administration 495.)

## 497. Senior Thesis (3) $\mathbf{C r} / \mathrm{NC}$ I, II

Prerequisites: Senior standing and consent of instructor.
Using library, Internet, and empirical research. Analysis of current criminal justice policy issues.
498. Internship in Criminal Justice Administration (2-6) Cr/NC I, II
Prerequisites: Consent of instructor and senior standing.
Students are assigned to various government agencies and work under joint supervision of agency heads and the course instructor. Participation in staff and internship conferences. Maximum credit six units.
499. Special Study (1-3) Cr/NC I, II

Prerequisites: Twelve units of upper division criminal justice administration and consent of instructor.

Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)
502. Juvenile Deviance and the Administration Process (3)

Prerequisite: Criminal Justice Administration 321.
Problems of implementing and evaluating policies and programs for prevention of juvenile delinquency and treatment of juvenile offenders; an assessment of the proposed standards and goals for juvenile justice administration.

## 510. Contemporary Issues in Law Enforcement Administration (3)

Prerequisite: Criminal Justice Administration 310.
Assessment of problems confronting administrators of law enforcement agencies and of recent efforts to enhance the capability of agencies to control criminal activity while guarding individual liberties.
520. Prosecutorial Function in Administration of Justice
(3)

Prerequisite: Criminal Justice Administration 301.
Analysis of prosecutor's function at local, state and federal levels and in selected foreign nations, including appraisal of proposed national standards and goals for prosecutors.

## 531. Probation and Parole (3)

Prerequisite: Criminal Justice Administration 330.
Basic concepts, history, legislation, and practices used in work with juveniles and adults who have been placed on probation or parole; criteria of selection, methods of supervision, and elements of case reporting.
540. Applied Planning, Research and Program Evaluation in Criminal Justice Administration (3) I, II
Prerequisite: Criminal Justice Administration 301.
Application of planning, research and program development and evaluation principles to the field of criminal justice.

## 543. Community Resources in Criminal Justice

 Administration (3)Prerequisite: Criminal Justice Administration 301.
Exploration of present and probable roles of public and private agencies and volunteers in criminal justice administration.

## 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 Bulletin of the Graduate Division.

## OFFICE: Music 112

TELEPHONE: (619) 594-6031
FAX: (619) 594-1692
EMAIL: music.dance@sdsu.edu

## Faculty

Emeritus: Willis
Director: Chambers
Professor: Sandback
Associate Professors: Hempel, Nunn
Assistant Professor: Green
Offered by the School of Music and Dance
Major in dance with the B.A. degree in liberal arts and sciences. Minor in dance.

## The Major

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.

## Dance Major

## With the B.F.A. Degree in Applied Arts and Sciences

San Diego State University is in the process of securing approval for the B.F.A. degree in Dance. For further information, contact the School of Music and Dance.

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.

## Dance

# In the College of Professional Studies and Fine Arts 

Foreign 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 this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 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)

Foreign 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 this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 24 upper division units 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)

## LOWER DIVISION COURSES

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
110. Historical and Contemporary Social Dance Forms (1) I

Two hours of activity.
Prerequisite: Consent of instructor.
Court and country dances including social dances of the nineteenth and twentieth centuries.
171. Dance Production I (1) Cr/NC I

Three hours of laboratory.
Technical experience in dance production.

## 181. Introduction to Dance (3) I, II

Foundations of dance in Western civilization. Dance as art, therapy, fitness, ritual, and social discourse. Analysis of dance in film, video, and live performance with an appreciation for artistic intent, technique, and style.

## 183. Rhythmic Analysis (2) II

One lecture and two hours of activity.
Music as related to movement; notation and simple music forms applied to all movement activities; percussion accompaniment; writing of percussion scores, music repertoire for dance.

## 221. Ballet I (2) II

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.
231. Jazz Dance I (2)

Four hours of activity.
Prerequisite: Consent of instructor. Dance majors and minors only.
Jazz dance technique and fundamentals. (Formerly numbered Dance 131.)

## 241. Modern Dance I (2) II

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.

## 253. Choreography I (2) I

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.

## 255. Dance Improvisation I (1) II

Two hours of activity.
Exploring improvisation through specific stimulus leading to the acquisition of basic improvisational skills.

## 256. Dance Improvisation II <br> (1) I

Two hours of activity.
Prerequisite: Dance 255.
Practice in more complex arrangements of improvisation.

## 285. Dance Pedagogy <br> (2) I

Four hours of activity.
Teaching theory as applied to ballet, modern, jazz, and social dance for adult populations.

## 290. Body Modalities (2) I

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.

## 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)

353. Choreography II (2) II

Four hours of activity.
Prerequisite: Dance 253.
Introducing large group works, solo and small group work in organizing more complex arrangements of the basic elements of dance composition. Utilizing music and sound as aural contributions to choreography.

## 354. Choreography III

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.

## 365. University Dance Company: <br> Major Performance (1-2) Cr/NC I

More than three hours of activity per week.
Prerequisites: Open only to dance majors. Audition and approval by dance faculty.

Practical experience in University dance company including concert performances of dance repertory, production of choreographic works, presentation of master classes and workshops, and participation in major production. Students must enroll in a minimum of two semesters. Maximum credit six units.

## 371. Dance Production II (1) Cr/NC I

Three hours of laboratory.
Prerequisite: Dance 171.
Technical experience in dance production.
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.

## 380B. Dance History II: Contemporary Global Contexts

 Prerequisite: Dance 181.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.

## 382. Dance in World Cultures (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.

## 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.

## 421. Ballet II (2) II

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.)
441. Modern Dance II (3) II

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.

## 453. Senior Project (2) II

Four hours of activity.
Prerequisite: Dance 354
Choreography of solo and group works utilizing symbiotic relationship of movement, sound, lighting, costuming, and other interdisciplinary media. Presentation of a concert.

## 471. Production Design for Dance (2)

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.)

## 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.

## 486. Dance Practicum: Folk, Square, Ballroom <br> (2) II

Four hours of activity.
Prerequisite: Dance 285.
Teaching techniques in folk, square, and ballroom dance and practice in the use of these techniques.
487. Dance Practicum: Modern, Ballet, Jazz (2) II

Four hours of activity.
Prerequisite: Dance 285.
Teaching techniques in modern dance, jazz dance, and ballet and practice in the use of these techniques.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
499. Special Study (1-3) I, II

Prerequisite: Consent of the dance director.
Individual study. Maximum credit six units.

## Drama

Refer to "Theatre, Television, and Film" in this section of the catalog.

# Economics 

In the College of Arts and Letters

OFFICE: Nasatir Hall 305
TELEPHONE: (619) 594-1675
FAX: (619) 594-5062

## Faculty

Emeritus: Anderson, Babilot, Barckley, Clement, Gifford, Green, Hambleton, Jencks, Leasure, Madhavan, Nam, Popp, Poroy, Sebold, Steinberg, Stewart, Turner, Venieris
Chair: Thayer
Professors: Adler, Boddy, Frantz, Gerber, Grossbard-Shechtman, Kartman, Thayer
Associate Professor: Brunner
Assistant Professors: Amuedo-Dorantes, Balsdon, Bansak, Imazeki, Mundra

## 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.

## Impacted Program

The economics major is an impacted program. Students must enter the University under the economics premajor code (22040). 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; Economics 201 or Statistics 119 or 250; 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. Complete a minimum of 30 transferable semester units;
c. Have a cumulative GPA and SDSU GPA of 2.40 or higher;
d. To be admitted to the emphasis in international economics (premajor code 22040), students must, in addition to satisfying the criteria above, also satisfy the foreign language requirement for the Bachelor of Arts degree in Liberal Arts and Sciences;
e. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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.

## Economics Major

## With the B.A. Degree in Liberal Arts and Sciences

(Premajor Code: 22040) (Major Code: 22041)
All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in economics courses can apply to the degree.

A minor is not required with this major.
Preparation for the Major. Economics 101, 102; Accountancy 201; Economics 201 or Statistics 119; 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 and 201D, or a computer course of at least two units. (19-21 units)

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 27 upper division units to include Economics 301, 320, 321, and 18 units selected from the groups below.

Institutions and Methods of Economics: Six units selected from Economics 311, 330, 338, 422, 441, and 507.

International Economics: Six units selected from Economics 336, 360, 365, 464, 465, 489, 561, 565, and 592.

Economic Issues: Six units selected from Economics 380, 382, 401, 452, 453, 454, 458, and 490.

Economics 496 or 596 and a maximum of three units of Economics 499 (Readings) may be substituted in an area as appropriate with approval of an adviser. A maximum of three units of Economics 495 (Internship) may be substituted in any one group.

## Emphasis in International Economics (Major Code: 22042)

Preparation for the Major. Economics 101, 102; Accountancy 201; Economics 201 or Statistics 119; 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 and 201D or a computer course of at least two units. (19-21 units)

Foreign Language Requirement. Competency at the ACTFLETS intermediate level (successfully completing the fourth college semester or sixth college quarter) is required in one foreign language as part of the preparation for the major. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 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, 490; three units selected from Economics 360, 561, 592; six units selected from Economics 336, 464, 465, 565; three units from Economics 330, 365, 489; three units selected from Economics 382, 441, 453, 454; six units selected from Finance 323 and 329 or six units from Management 350 and 357 or seven units from Marketing 370 and 376. Three additional units from Economics 360, 561, and 592 may substitute for upper division economics courses except for Economics 301, 320, 321, 490. Economics 496 ( 3 units) or 596 may be substituted in like manner with the department's approval of its international content. A maximum of three units of Economics 495 (Internship) and a maximum of three units of Economics 499 (Special Study) may be applied to this major with relevant content approved by the department.

## Emphasis in Preprofessional Studies (Major Code: 22041)

Preparation for the Major. Economics 101, 102; Accountancy 201; Economics 201 or Statistics 119; 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 and 201D, or a computer course of at least two units; Communication 160. (22-24 units)

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. English 508W or 584W, or Linguistics 305W, or Rhetoric and Writing Studies 500W or 503W.

Major. A minimum of 30 upper division units in economics to include Finance 323, Economics 301, 320, 321, either 311 or 338, and 15 units selected from the following areas:

Business and Government (Analyzes legal implications of business regulation and corporate theory): Six units selected from Economics 380, 401, 422, 490.

International: Three units selected from Economics 360, 365, 464, 465,561 or 592.

Applications (Explores market outcomes and alternative solutions): Six units selected from Economics 330, 382, 441, 452, 453, $454,458,489$, or three units of 495 (relevant content of the internship subject to departmental approval).

Three units of Economics 499 (Special Study), plus either Economics 496 or 596 may be substituted in an area as appropriate with the approval of an adviser.

## Specialization in Quantitative Analysis

Preparation for the Major. Economics 101, 102, and either Economics 201 or Statistics 119; Accountancy 201; Mathematics 150; Social Science 201A; Information and Decision Systems 180 or the combination of Social Science 201C and either Social Science 201B and 201D, or a computer course of at least two units. (21 units)

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 27 upper division units in economics to include Economics 301, 320, 321, 441, 507, and 12 units of upper division economics electives, with six units at the 400 or 500 level. Three units of Economics 499 (Special Study), plus either Economics 496 or 596 may be substituted with the approval of the adviser. A maximum of three units of Economics 495 (Internship) may be substituted with the approval of the adviser.

## Economics Minor

The minor in economics consists of a minimum of 15 units in economics to include Economics 102, either 320 or 321, and nine units selected from one of the following tracks:

Public Economy: Economics 311, 330, 380, 382, 401, 452, 453, 454, 458, 490.

Trade and Commerce: Economics 336, 338, 360, 365, 422, 453, 464, 465, 489, 490, 561, 565, 592.

Quantitative Economics: Economics 301, 320 or 321 not taken above, 441, 507.

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)

## LOWER DIVISION COURSES

## 100. Contemporary Economic Problems (3) I, II

Investigates economic bases for such current problems as inflation, unemployment, economic power, consumer protection, poverty, discrimination, urban and environmental deterioration, and international domination. Examines such policies as fiscal-monetary policy, tax reform and government controls and provision of services.

## 101. Principles of Economics (3) I, II, S (CAN ECON 2)

Principles of economic analysis, economic institutions, and issues of public policy. Emphasis on macroanalysis including national income analysis, money and banking, business cycles, and economic stabilization.

## 102. Principles of Economics (3) I, II, S (CAN ECON 4)

Principles of economic analysis, economic institutions, and issues of public policy. Emphasis on direction of production, allocation of resources, and distribution of income, through the price system (microanalysis); and international economics.

## 201. Statistical Methods <br> (3) 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; Biology 215; Civil Engineering 160; Political Science 201; Psychology 270; Sociology 201; Statistics 119 or 250.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES (Intended for Undergraduates)

## 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.

## 311. History of Economic Thought (3)

Prerequisites: Economics 101 and 102.
The development of economics. Contributions of schools of thought and individual writers are examined with regard to their influence on economic theory and policy.

## 320. Intermediate Macroeconomic Theory (3) I, II, S

Prerequisite: Economics 101 or Economics 100 with approval of department. Recommended: Mathematics 120 or 121 or 150.

Determination of output, income, unemployment, and inflation. Policies for economic stabilization and growth in an open economy.

## 321. Intermediate Microeconomic Theory (3) I, II, S

Prerequisite: Economics 102 or Economics 100 with approval of department. Recommended: Mathematics 120 or 121 or 150.

Behavior of consumers, firms and industries with respect to product and input markets. Price system and other models of economic decision making. Economic efficiency and welfare; property rights and externalities.

## 330. Comparative Economic Systems (3)

Prerequisites: Six units of economics to include Economics 102; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. General Education prerequisite not required for Economics majors.

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.
336. Economic History of Emerging Nations (3)

Prerequisite: Six units of economics to include Economics 101.
Evolution of economic organization, institutions, and policies of Africa, Asia, and Latin America. Regional emphasis will vary. Maximum credit six units.

## 338. Economic History of the United States (3)

Prerequisite: Six units of economics to include Economics 101.
American economic development and national legislation. Studies of agriculture, industry, the labor force, and national output.
360. International Economic Problems (3)

Prerequisites: Economics 101 and 102.
International problems, economic communities, organizations, and other selected topics.
365. Economics of Underdeveloped Areas (3)

Prerequisite: Six units of economics to include Economics 101.
The nature and causes of economic underdevelopment. Problems of and policies for the economic development of underdeveloped areas of the world.

## 380. Labor Problems (3)

Prerequisite: Six units of economics to include Economics 102.
Labor force and mobility, human capital, labor demand, discrimination, determination of compensation and employment, productivity, impact of labor organizations, labor disputes, and social legislation.

## 382. Economics of Work, Marriage, and Family <br> 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.

## 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.

## 406. Economics of Sports (3)

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.

## 422. Business Cycles (3)

Prerequisites: Economics 101 and 102.
Fundamental factors in economic fluctuations. Examination of business cycle theories, and various policy proposals for economic stabilization. A consideration of current economic conditions and an examination of methods employed in preparing national economic forecasts.
441. Introduction to Econometrics (3) I, II

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.

## 452. Economics of Energy Resources

Prerequisite: Six units of economics.
Economic structure of energy supply in the United States: electric power, fossil fuels, nuclear energy. Economic potential of alternative energy sources. Public policy issues: oil imports and self-sufficiency; energy costs, conservation, and curtailment; energy growth and its environmental impact.

## 453. Economics and Ecology (3)

Prerequisites: Economics 101 and 102.
Relation of ecological problems to basic economic institutions. Examination of the apparent conflict between economic needs and ecological requirements. Economics of air, fresh water, ocean and land pollution, overpopulation and natural resource utilization. Investigation of possible solutions.

## 454. Economics of the Ocean (3)

## Prerequisites: Economics 101 and 102.

Economic analysis of fisheries, seabed resources, shipping lanes, allocation of the coastal zone, and ocean pollution. Economic implications of alternative legal arrangements concerning the ocean.

## 458. Urban 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.
464. Economic Problems of Latin America (3)

Prerequisites: Six units of economics to include Economics 101; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. General Education prerequisite not required for Economics majors.

Economic development, institutions, and problems of Latin America in the context of a global economy.
465. Economic Problems of South and East Asia (3)

Prerequisites: Six units of economics to include Economics 101; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. General Education prerequisite not required for Economics majors.

Economic development, institutions, and problems of China, India, and other developing countries in the region.
489. Economics and Population (3)

Prerequisites: Six units of economics to include Economics 102; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. General Education prerequisite not required for Economics majors.

Relation of fertility, marriage, migration, and other dimensions of population to various economic factors affecting household behavior. Demographic measures and projections, application to product markets and to policies of developed and less developed countries.

## 490. Money and Banking (3) I, II, S

Prerequisites: Economics 101, 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.

## 495. Economics Internship (3) Cr/NC I, II, S

Prerequisite: Consent of instructor.
Internship with business firms, nonprofit organizations and government agencies. Work done under joint direction of activity supervisor and instructor. Project report and internship conferences required. Maximum credit six units.

## 496. ExperimentalTopics (1-3)

Prerequisite: Consent of instructor.
Selected topics in economics. May be repeated with approval of the instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.
499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. May be repeated for a maximum of six units. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

## 507. Mathematical Economics <br> (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. Not open to students with credit in Economics 307 or 610.

## 561. International Trade (3)

Prerequisites: Economics 320 and 321.
Theory and policy of international trade with examples drawn from current issues. Models of determinants of trade. Free trade and protectionism. Trade and economic development. Trading blocs, the European community, GATT and U.S. trade policy.

## 565. North American Economic Relations (3)

Prerequisites: Economics 101 and 102. Recommended: Economics 360.

Socioeconomic development of U.S., Mexico, and Canada since World War II. Issues affecting the three countries' relations, including trade investment, technology, and international organizations and agreements.

## 592. International Monetary Theory and Policy

(3)

Prerequisite: Economics 320 or 490.
International monetary spillovers from domestic macroeconomic policies. Foreign exchange markets and balance of payments. Fixed, flexible and managed exchange rates. Bretton Woods, international monetary fund, and world debt crisis.

## 596. Experimental Topics (3)

Prerequisite: Consent of instructor.
Intensive study in specific areas of economics. Topics to be announced in the Class Schedule. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to Bulletin of the Graduate Division.

## Education

In the College of Education

Accredited by the California Commission on Teacher Credentialing and the National Council Accreditation of Teacher Education.

## Faculty

Faculty assigned to teach in education are drawn from departments in the College of Education

## Courses (ED)

## LOWER DIVISION COURSES

## 200. Teaching as a Profession (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.

## 201. Introduction to Literacy (3)

Two lectures and four hours of laboratory.
Intended for students in the liberal studies blended program for K3 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. (Formerly numbered Education 101.)

## OFFICE: Education 154

TELEPHONE: (619) 594-6091
FAX: (619) 594-7082

UPPER DIVISION COURSES (Intended for Undergraduates)

## 350. Education in American Society (3) I, II, S

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Philosophical, historical and psychological roots of education in America; current models, instructional designs and strategies of education. Contemporary concerns in education.
451. Introduction to Multicultural Education (3)

Overview of cultural pluralism in education, industry, business, other institutions, and society at large.

## UPPER DIVISION COURSE <br> (Also Acceptable for Advanced Degrees)

## 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 Bulletin of the Graduate Division.

# Educational Leadership 

OFFICE: North Education 167
In the College of Education
TELEPHONE: (619) 594-4063
EMAIL: ditomaso@mail.sdsu.edu

Accredited by the California Commission on Teacher Credentialing.

## Faculty

Emeritus: Latta, Merino, Streshly, Warburton, Wetherill, Yerkes
Chair: Frase
Professors: Frase, Meno, Pumpian
Associate Professors: Basom, Downey, Foster

## Offered by the Department

Master of Arts degree in education.
Concentration in educational leadership.
Administrative services credentials.

## Courses (edl)

UPPER DIVISION COURSES
(Intended for Undergraduates)

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 499. Special Study

(1-3) 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)

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.

## ${ }^{6}$ Keep your face to the sunshine and you cannot see the shadows."

- Helen Keller


# Educational Technology 

In the College of Education

## Accredited by the California Commission on Teacher Credentialing.

## Faculty

Emeritus: Anthony, Harrison, McAllister
Chair: Ritchie
Professors: Allen, Dodge, Ritchie, Rossett, Saba
Associate Professor: Hoffman
Assistant Professors: Bober, Dennen, Molebash, Wang Lecturer: Marshall

## Offered by the Department

Master of Arts degree in education.
Concentration in educational technology.
Specialization in educational computing.
Specialization in workforce education and lifelong learning
Minor in educational technology
Certificate in distance education (refer to Bulletin of the Graduate Division).
Certificate in instructional software design (refer to Bulletin of the Graduate Division).
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 470, 540, 541, 544, 561,572 , and 596 (when applicable).

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable 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)

## LOWER DIVISION COURSES

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.
Introduction to the application of technology to teaching. Meets part of computer literacy requirement for Level I teaching credential.

## 270B. Technologies for Teaching II (Blended) (1)

One and one-half hours of lecture and three hours of activity per week for five weeks.

Prerequisite: Educational Technology 270A.
Database and spreadsheet use for teaching and learning. Development of web-based teaching resources. Meets part of computer literacy requirement for Level I teaching credential.

## 296. Experimental Topics (1) 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)

370. Technologies for Teaching III (Blended) (1)

One and one-half hours of lecture and three hours of activity per week for five weeks.

Prerequisite: Educational Technology 270B.
Educational software selection; presentation tools; assessing and tracking performance; ethics, equity and copyright issues. Meets part of computer literacy requirement for Level I teaching credential.

## 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.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.

Individual study. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

## 532. Production of Instructional Materials (3) I, II

Six hours of activity.
Instructional media production for professionals in organizational settings such as hospitals, law offices, accounting firms, publishing companies. Use of 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.
540. Educational Technology (3) I, II, S

Six hours of activity.
Rationale, foundations, theories, careers, trends, and issues in educational technology. Implications of educational technology for instruction and information in schools, government, and corporations.

## 541. Web-Based Multimedia Development (3) I, II, S

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.
544. Instructional Design (3) I, II

One lecture and six hours of laboratory.
Prerequisites: Educational Technology 540 and 541. Meet department Writing Skills Requirement or complete Rhetoric and Writing Studies 503 W with a grade of $\mathrm{B}+$ 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.

## 550. Introduction to 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.

## 561. Advanced Web-Based Multimedia Development 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.

## 570. Advanced Teaching with Technologies (3) I, II

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.
572. Technology for Course Delivery (3) I, II, S

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.

## 596. Topics in Educational Technology (1-3) I

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 Bulletin of the Graduate Division.

# Electrical Engineering 

In the College of Engineering

OFFICE: Engineering 426
TELEPHONE: (619) 594-5718
EMAIL: ee@engineering.sdsu.edu

The undergraduate degree in Electrical Engineering is accredited by the Accreditation Board for Engineering and Technology, Inc.

## Faculty

Emeritus: Abut, Bailey, Brown, Chan, Iosupovici, Lin, Lodge, Mann, Massey, Panos, Skaar, Stuart, Thyagarajan, Wilson

## Chair: Tummala

Professors: Chang, Gupta, harris, f., Harris, J., Kolen, Lee, G., Lee, L., Marino, Szeto, Tummala
Associate Professors: Betancourt, Ozturk
Assistant Professors: McPheters, Park, Rasmussen, Singh

## Offered by the Department of

## Electrical and Computer Engineering

Doctor of Philosophy degree in engineering sciences/applied mechanics.
Master of Science degree in electrical engineering.
Major in electrical engineering with the B.S. degree.
Certificate in rehabilitation technology (refer to Bulletin of the Graduate Division).

## Transfer Credit

No credit will be given for upper division engineering coursework taken at an institution having an engineering program which has not been accredited by the Accreditation Board for Engineering and Technology, Inc., unless the student successfully completes the first 12 units of engineering work attempted at this University. At that time, and upon recommendation of the department, credit will be given for the unaccredited work.

## General Education

Students will complete a minimum of 50 units in General Education, to include a minimum of nine upper division units taken after attaining junior class standing. 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, III, and IV combined (Foundations, American Institutions, and Explorations).

## I. Communication and Critical Thinking: 9 units

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)
II. Foundations: 29 units
A. Natural Sciences and Quantitative Reasoning (17 units):
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.
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 objectives of the undergraduate program in electrical engineering are:
A. To provide students with an education that will enable them to have a successful career in the electrical engineering profession;
B. To provide students with a significant exposure to the humanities and social sciences in order to give them an understanding of the impact of electrical engineering solutions in a global, societal, and environmental context; and
C. To inspire in students an open but critical approach to the analysis of problems, considering the technical, social, economic, and ethical dimensions of any solution.

## Electrical Engineering Major

## With the B.S. Degree (Major Code: 09091)

The program below describes the 131 units required for the degree. Each course specifically listed in the program is required. In addition, the total number of units specified in each elective category represents a minimum requirement. These are General Education, American Institutions, Upper Division Engineering Elective, Professional Electives, Electrical Engineering Laboratory Electives, and the Electrical Engineering Capstone Elective.

Preparation for the Major. Electrical Engineering 210; Chemistry 200; Computer Engineering 160, 270, 271; Engineering 280; Engineering Mechanics 202; Mathematics 150, 151, and 252; Physics 195, 196, 196L. (43 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.)

| FRESHMAN YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall Semester | Units | Spring Semester | Units |
| Chemistry 200, General Chemistry ............ | 5 | COMPE 160, Intro. to Computer Prog. | 3 |
| Mathematics 150, Calculus I .................... | 5 | Mathematics 151, Calculus II | 4 |
| General Education. | 6 | Physics 195, Principles of Physics General Education. | 3 6 |
|  | 16 |  | 16 |
| SOPHOMORE YEAR |  |  |  |
| Fall Semester | Units | Spring Semester | Units |
| EM 202, Mechanics for Elec. Engrs ...... | 3 | EE 210, Circuit Analysis I | 3 |
| COMPE 270, Digital Systems ............... |  | COMPE 271, Computer Organization .... | 3 |
| Mathematics 252, Calculus III | 4 | Engineering 280, Methods of Analysis | 3 |
| Physics 196, 196L, Principles of Physics.... | 4 | General Education | 6 |
| General Education.............................. | 3 |  |  |
|  | 17 |  | 15 |


| JUNIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall Semester | Units | Spring Semester | Units |
| EE 300, Comp. and Stat. Methods............. | 3 | EE 340, Elec. and Magnetic Fields | 3 |
| EE 310, Circuit Analysis II ...................... | 3 | EE 380, Elec. Energy Conversion | 3 |
| EE 330, 330L, Fund. Engr. Electronics........ | 4 | EE 410, Signals and Systems . | 3 |
| Upper Division Engr. Elective | 3 | EE 430, Analysis and Design of |  |
| General Education.. | 3 | Electronic Circuits .... | 3 |
|  |  | General Education. | 6 |
|  | 16 |  | 18 |


| SENIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall Semester | Units | Spring Semester | Units |
| EE Laboratory Elective. | 1 | EE Laboratory Electives... | 2 |
| EE 434, Elec. Matls. and Devices | 3 | Professional Electives. | 12 |
| Professional Electives | 6 | American Institutions | 3 |
| American Institutions | 3 |  |  |
| General Education. | 3 |  |  |
|  | 16 |  | 17 |

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.

Upper Division Writing Requirement. Each student must pass the University Writing Examination or complete one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 49 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, 430, and 434. General engineering electives: Three units selected from Civil Engineering 301 or Engineering Mechanics 340 or Mechanical Engineering 260 or Mechanical Engineering 352. 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 nonrequired upper division electrical engineering laboratory courses. Electrical Engineering capstone design elective: Three units selected from a list of design courses approved by the department.

Elective courses are subject to the approval of the faculty adviser and the department chair. The student must file an approved Master Plan during the first semester of the junior year specifying the electives selected. Changes to the Master Plan are permitted at any time upon approval by 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.

## Courses (EE)

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

203. Principles of Electrical Engineering (3) I, II

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.

## 204. Principles of Electrical Engineering (3) I, II

Prerequisites: Mathematics 151 and Physics 196.
Circuit analysis, phasor diagrams, single-phase and three-phase power, semiconductor devices and applications, and energy conversion devices. Not acceptable for electrical or mechanical engineering majors.

## $\begin{array}{lll}\text { 210. Circuit Analysis I } & \text { (3) I, II (CAN ENGR 12) }\end{array}$

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 three-phase balanced networks. Computer programming and application of computer software for circuit analysis.

## UPPER DIVISION COURSES (Intended for Undergraduates)

300. Computational and Statistical Methods for Electrical Engineers (3) I, II
Prerequisites: 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 computeraided engineering tools.

## 303. Electronics, Instrumentation, and Electrical Energy Conversion (3) I, II

Prerequisite: Electrical Engineering 203 with minimum grade of C.
Theory and application of diodes and transistors in typical electronic circuits. Instrumentation and electronic measuring devices. Fundamentals of electro-mechanical energy conversion including motors and transformers. Not open to electrical engineering majors.

## 310. Circuit Analysis II (3) I, II

Prerequisites: Electrical Engineering 210 and either Mathematics 252 or both Engineering 280 and Mathematics 254.

Transient and frequency response of RLC circuits. Mutual inductance generalized network analysis using Laplace transformations, network functions, poles and zeros, stability of circuits, convolution integrals, Bode diagrams, two-part networks, computer-aided analysis of circuits.
330. Fundamentals of Engineering Electronics (3) I, II

Prerequisite: Electrical Engineering 210.
Application of diodes JFETs, MOSFETs, and BJTs in typical electronic circuits. Analysis and design of rectifiers, filters, and simple amplifiers using transistors and operational amplifiers.

## 330L. Engineering Electronics Laboratory (1) I, II

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Electrical Engineering 330.

Experimental study of laboratory instruments, diodes, rectifier circuits, filters, transistors, and operational amplifiers.

## 340. Electric and Magnetic Fields (3) I, II

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.

## 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.

## 380L. Electrical Energy Conversion Laboratory (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.

## 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.

## 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.
430. Analysis and Design of Electronic Circuits (3) I, II Prerequisites: Electrical Engineering 310, 330, and Engineering 280.

Single and multiple transistor amplifiers, power stages. Frequency response, feedback, stability, and operational amplifier circuits.
430L. Electronic Circuits Laboratory (1) I, II

## Three hours of laboratory.

Prerequisites: Electrical Engineering 330L and 430.
Transistor dynamic characteristics; single stage and multistage amplifier circuits including feedback, tuned amplifiers, voltage regulators, active filters, and A/D-D/A converters.
434. Electronic Materials and Devices (3) I, 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.

440L. Physical Electronics Laboratory (1)
Prerequisites: Electrical Engineering 330 and 340.
Experimental study of electrical properties of semiconductors, light transmission in optical fibers, transmission and reflection of electromagnetic waves, laser oscillation and amplification, and gaseous electrical discharge.

## 450. Transmission Lines for High Speed Electronics and Microwaves (3)

Prerequisites: Electrical Engineering 330 and 340.
Theory and applications of transmission lines. Transmission-line equations and four transmission-line parameters, pulses on transmission lines, and impedance matching techniques, scattering matrix, microstrip line, coplanar waveguides, and various microwave transmission line components.
458. Communication Systems I (3)

Prerequisite: Electrical Engineering 410.
Analog and digital communication systems. Amplitude and frequency modulation, pulse modulation, and PCM. Introduction to information theory.

## 483. Power Distribution Systems (3) II

Prerequisite: Electrical Engineering 380.
Design and operation of electric power distribution systems. Design of primary and secondary systems, application of one phase and three phase transformer banks, and metering principles and practices.

## 496. Advanced Electrical Engineering Topics (1-3)

Prerequisite: Consent of instructor.
Modern developments in electrical engineering. See Class Schedule for specific content. Maximum credit nine units for any combination of Electrical Engineering 496 and 596 applicable to a bachelor's degree.

## 499. Special Study (1-3) I, II

Prerequisite: Approval of project adviser and department chair. Individual study. Maximum credit six units.

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

502. Electronic Devices for Rehabilitation (3)

Two lectures and three hours of laboratory.
Prerequisite: Electrical Engineering 303 or 330.
Recent developments in electronic assistive devices and microcomputers for persons with various disabilities; assessment of disabled persons for suitable technological assistive devices.

## 503. Biomedical Instrumentation (3)

Prerequisites: Engineering 280; Electrical Engineering 410 and 430 (or for Mechanical Engineering majors, Electrical Engineering 303 and Mechanical Engineering 512).

Instrumentation systems to monitor, image, control, and record physiological functions. (Formerly numbered Electrical Engineering 403.)

## 520. Feedback Control Systems (3) I

Prerequisite: Electrical Engineering 410.
Analysis of regulatory systems including servomechanisms by the Laplace transform method. System performance and stability; Nyquist, Bode, and root-locus diagrams; elementary synthesis techniques. Practical components and examples of typical designs.
530. Analog Integrated Circuit Design (3)

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.

## 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.

## 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.
540. Microwave Devices and Systems (3)

Prerequisite: Electrical Engineering 340. 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.
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.
541. Electro-Optics (3) II

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.
546. Optical Fiber Communications Systems (3)

Prerequisite: Electrical Engineering 434.
Optical fiber attenuation and dispersion, light-emitting diodes and laser diodes, PIN diodes and avalanche photodiodes, receiver designs, optical power budgets and rise time budgets, applications in digital and analog communication systems.

## 553. Stochastic Signals (3) I

Prerequisite: Electrical Engineering 410.
Random signals, correlation functions, power spectral densities, the Gaussian process, narrow band processes. Applications to communication systems.

## 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.

## 558. Communication Systems II (3) II

Prerequisite: Electrical Engineering 458.
Performance of analog and digital communication systems. Effects of noise and spectral characteristics.

## 558L. Communications and Digital Signal Processing Laboratory (1)

Prerequisite: Electrical Engineering 558.
Experiments in modulation techniques, effects of noise on system performance, digital filters, and signal processing.

## 570. Advanced Digital Circuits (3)

Prerequisite: Computer Engineering 470.
Digital applications of linear devices, the digital/analog interface, and ultra high speed logic devices.

## 580. Modern Power Systems I (3) I

Prerequisites: Engineering 280, Electrical Engineering 310 and 380.
Modern power system elements; calculation of load flow, fault currents, and system stability.

## 581. Modern Power Systems II (3) II

Prerequisite: Electrical Engineering 580.
Transient response of modern power system elements; positive, negative and zero sequence impedance; subharmonic effects.

## 582. Power Relay Systems (3) I

Prerequisite: Electrical Engineering 380.
Power relays including metering and control as used in modern power systems. Characteristics of operations and applications of equipment. Demonstrations on individual component relays. Basic relay calculations.

## 583. Power Electronics (3)

Prerequisites: Electrical Engineering 380 and 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.

## 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 credit of six units of Electrical Engineering 596 applicable to a 30 -unit master's degree.

GRADUATE COURSES
Refer to the Bulletin of the Graduate Division.

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

## Faculty

Faculty assigned to teach courses in engineering are drawn from departments in the College of Engineering.

## Minor in Engineering

The minor in engineering, intended for students in other academic areas of the university, consists of 15 units in engineering, 12 units of which must be in upper division courses. The courses must be approved by the Dean of the College of Engineering.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

## Courses (engr)

## LOWER DIVISION COURSES

## 190. Graphical Communication in a Virtual Reality

## Environment (2)

Six hours of laboratory.
Graphic communication for engineers including computer-aided design and three-dimensional representation for a virtual reality environment.
195. Graphical Communication in a Virtual Reality Environment II (2)
Six hours of laboratory.
Prerequisite: Engineering 190.
Continuation of graphic communication for engineers including computer-aided design and three-dimensional representation for a virtual reality environment. Design, analysis, NC, SLA prototyping and testing of engineering components using computer-based modeling techniques.
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.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of six units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## ${ }^{6}$ The important thing is to not stop questioning." <br> -Albert Einstein

## UPPER DIVISION COURSES

(Intended for Undergraduates)

## 430. Principles of Engineering Economy <br> (3) I, II

Prerequisite: Mathematics 252.
Application of the mathematics of finance to engineering and managerial decision making.
496. Advanced Engineering Topics (1-3) I, II

Prerequisite: Minimum grade point average of 2.0 in engineering.
Modern developments in engineering. See Class Schedule for specific content. Maximum credit six units for any combination of 496, 499 , and 596 applicable to a bachelor's degree.

UPPER DIVISION COURSE
(Also Acceptable for Advanced Degrees)

## 510. Methods of Analysis (3) I, II

Prerequisite: Engineering 280 with minimum grade of C.
Selected topics from vector calculus, partial differential equations, and complex analysis, with engineering applications.

GRADUATE COURSES
Refer to Bulletin of the Graduate Division.

# English 

In the College of Arts and Letters

# OFFICE: Adams Humanities 4158 TELEPHONE: (619) 594-5443 <br> FAX: (619) 594-4998 <br> EMAIL: EandCL@mail.sdsu.edu WEB SITE: literature.sdsu.edu 

## Faculty

Emeritus: Adams, Baker, Benson, Boe, Brashear, Brown, Bumpus, Chater, Gross, Ingham, Kehler, Kohler, Kuznets, McLeod, Monteverde, Moramarco, Nelson, Neumeyer, O'Reilly, Redding, M., Redding, R., Sanderlin, Sandstrom, Santangelo, Savvas, Scott, Sheres, Shojai, Stiehl, Sullivan, Tozer, Vanderbilt, Wall, Wheeler, Widmer
Chair: Little
Professors: Alcosser, Allison, Butler, Chin, Davis, Edson, Farber, Gervais, Gregory, Griswold, Herman, Hicks, Jaffe, Koolish, Little, McCaffery, Polkinhorn, Rogers, Rother, Shumaker
Associate Professors: Amtower, Champion, Colquitt, Matlin, Nericcio, Stampfl
Assistant Professors: Cummins-Lewis, Joshi

## Offered by the Department of English <br> 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.
English honors.
Minor in English.
Certificate in children's literature.

## The Major

The study of English today encompasses a wide range of materials and approaches to ways in which both students and established writers - past and present - may use language to express feelings, convey ideas, and give aesthetic pleasure. As one of the largest English Departments in California, SDSU'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.

The SDSU Placement Office 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. Students not meeting these requirements may petition for admission to the English honors program. 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

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 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. Students not meeting these requirements may petition for admission to the English honors program. 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 are impacted programs. Students must enter the University under the English premajor code (15010). To be admitted to the major in English or English in Preparation for the Single Subject Teaching Credential, students must meet the following criteria:
a. Complete with a minimum GPA of 2.5 and a grade of C or higher: Rhetoric and Writing Studies 100; English 220 or Comparative Literature 270A or 270B; and two of the following for the English major and three for the English major in Preparation for the Single Subject Teaching Credential: English 250A, 250B, 260A, 260B, 280. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 45 transferable semester units;
c. Have a cumulative GPA of 2.40 or higher;
d. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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.

## English Major

With the B.A. Degree in Liberal Arts and Sciences (Premajor Code: 15010) (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.
Preparation for the Major. Rhetoric and Writing Studies 100; three units selected from English 220, Comparative Literature 210, 270A, 270B, 296; English 260A-260B (unless replaced by English 560A and 560B); and three units selected from English 250A, 250B, 280, 281, 296. (15 units)

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. English 508W, 581W, or $584 \mathrm{~W}^{*}$, with a grade of C (2.0) or better.

Major. A minimum of 33 upper division units in English and Comparative Literature with approval of the adviser to include English 533, three units in British Literature before 1800 (English 529, 530, 531, $\left.534^{*}, 536,537,538 A, 538 B, 540 A, 541 A, 541 B\right)$, three units in British literature after 1800 (English 540B, 541B, 542, 543, 544, 547, 548), six units in American literature (English 519, 520-528) including at least one period course (English 521, 522, 523, 524, 525), six units in comparative literature, three units in writing (English 508W, 580*, 581W*, $584 \mathrm{~W}^{*}$ ), and nine units of electives in any combination of courses in American, British, comparative literature, and creative writing.

Students who have not taken English 260A as part of the preparation for the major must take English 560A. Students who have not taken 260B must take 560B. English 560A or 560B may not be used to satisfy requirement for British literature before and after 1800, but may count as electives in the major if they are not used as units in preparation for the major

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)

## * Additional prerequisites required.

NOTE: In addition to the courses listed above, appropriate sections of English 496, 499, 526, 527, 528, 549, American Studies 580, and selected comparative literature courses may be used to satisfy the requirements for the major if approved by the departmental adviser.

## Selection of Courses

Prospective majors of sophomore standing may, with the consent of the course instructor and subject to general university regulations (see "Credit for Upper Division Courses" in the section of this catalog on General Regulations), substitute six units of upper division electives for six units of lower division work. These courses must be in the same field as those which they replace, and must be approved by the departmental adviser.

Students of junior or senior standing may substitute for any deficiencies in lower division requirements in English (except 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 <br> In preparation for the Single Subject Teaching Credential in English

## With the B.A. Degree in Liberal Arts and Sciences

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education.

Preparation for the Major. Rhetoric and Writing Studies 100. English 250A-250B or 260A-260B, English 280 or 281, English 220 or Comparative Literature 270A or 270B; Communication 200 or Journalism 220 or Theatre 115; Humanities 140 or Theatre 120; Linguistics 101 (420 may be substituted). (24 units)

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. English 508W or Rhetoric and Writing Studies 500W.

Major. A minimum of 48 upper division units to include English 508 W or Rhetoric and Writing Studies 500W; English 533; English 560A and 560B (for those who took English 250A-250B) or six units from English 521, 522, 523, 524, 525 (for those who took English 260A-260B); Comparative Literature 562 or Theatre 310 or 580; Linguistics 430 or 530; Rhetoric and Writing Studies 509; three units selected from Communication 360*, 371, 391, 408, 491*, Linguistics $410,452,524,550,551$; and completion of courses selected from the following categories:

1. Ethnic Literature (3 units): English 519, 520, 526 (with adviser approval), 527 (with adviser approval), Africana Studies 460, 461, 462, 463, 464, American Indian Studies 430, Chicana and Chicano Studies 335, 464.
2. Pre-Nineteenth Century Literature (3 units): Comparative Literature 511, 512, English 521, 529, 530, 531, 534, 536, 537, $538 \mathrm{~A}, 538 \mathrm{~B}, 540 \mathrm{~A}, 541 \mathrm{~A}, 541 \mathrm{~B}$.
3. Nineteenth or Twentieth Century Literature (3 units): English 522, 523, 524, 525, 540B, 541B, 542, 543, 544, 547, 548; Comparative Literature 440, 445, 460, 513, 514.
4. Genre Course (3 units): Comparative Literature 470, 561, 562, 563, English 527, 540A, 540B, 541A, 541B, Theatre 460A, 460B.
Twelve additional units in literature, creative or expository writing, as follows (no more than six units in one area):

Literature: Courses listed under 2 and 3 above, plus English 501, 502, 503, 519, and 520.

Creative Writing: English 570, 571, 573, 576, 577, 579, 580, 581W, 583, 584W, 587.

Expository Writing: English 508W, 584W, Rhetoric and Writing Studies 500W, 503W, 504, 506.

No course can fulfill more than one requirement. Sixteen courses are required.

English Honors Variation. Instead of "twelve additional units in literature, creative or expository writing," students take three units of electives; convert six units of electives to two courses relevant to the student's honors thesis, with consent of honors adviser; and convert
three units of electives to Honors Thesis (English 499 or Comparative Literature 499. (48 units).

## * Additional prerequisites required.

NOTE: Sections of English 526, 527, 528, 549, 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: Rhetoric and Writing Studies 500 W or 503 W .
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, 548, or approved sections of special topics courses.

Fine Arts disciplines, one course from each group:

1. A course in Shakespeare: English 302 or 533.
2. A course in genre study or criticism: English 405, 501, 502, 508W, 527, 570*, 571*, 573*, 577*, 579*, Comparative Literature 561, 562, 563.
3. A course in literature and other arts: English 493, Comparative Literature 594, 595, or approved sections of special topics courses.
4. A course in creative writing: English $580^{*}, 581 W^{*}, 583^{*}, 584 W^{*}$, 587*, or approved sections of special topics courses.
Business disciplines, one course from each group:
5. A course in expository writing: Rhetoric and Writing Studies 500 W or 503 W .
6. A course in Shakespeare, literature and psychology, literature and film, or modern American fiction: English 301, 302, 491, 493, 494, 533.
7. A course in American literature: English 519, 520, 521, 522, $523,524,525$, or approved sections of 526,527,528.
8. A course in British literature: English 540A, 540B, 544, 547, 548 , or approved sections of 549.

Humanities disciplines, one course from each group

1. A course in Shakespeare: English 302 or 533.
2. A course in genre study or criticism: English 405, 501, 508W, 527, 570*, 571*, 573*, 577*, 579*, Comparative Literature 561, 562, 563.
3. A course in literary history: English 560A, 560B, any course in the 520, 530, and 540 series, Comparative Literature 511, 512, 513, 514.
4. A second course in literary history or a course in literature and other disciplines, English 493, Comparative Literature 594, 595, or approved sections of special topics courses.
Science disciplines, one course from each group:
5. A course in technical writing: Rhetoric and Writing Studies 503W*.
6. A course in Shakespeare or Bible as Literature: English 302, 405, 533.
7. 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.
8. A course in literary history: English 560A, 560B, any course in the 520, 530, or 540 series, Comparative Literature 511, 512, 513, 514.

* Additional prerequisites required.


## For students whose needs are not accommodated by any of the above patterns:

Students whose majors are not represented by the patterns above, students who wish to design a minor more directly tailored to their specific major, or students who otherwise feel they have special needs are encouraged to consult with their advisers in both major and minor departments to design individualized minors in English. All such minors must have the written approval of both departmental advisers.

The English minor is not available to students majoring in comparative literature. Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

## Children's Literature Certificate

This certificate attests that the student has successfully completed 18 units (minimum GPA 3.0) of planned, advised, coherent, and articulated study in the field of literature for children. Prerequisites include admission to the University and to upper division or graduate standing. The Certificate in Children's Literature may be earned with a specialization either in Education or in English and Comparative Literature. Nine units in the certificate program may be counted toward the major in English, and six units may be counted toward the minor in English.

Specialization in Education. Nine units from courses in group A, six units from group B, and three units of an appropriate elective chosen with the approval of a faculty adviser

Specialization in English and Comparative Literature. Nine units from courses in group B, six units from group A, and three units of an appropriate elective chosen with the approval of a faculty adviser.

Group A, Education: Educational Technology 596; Teacher Education 496**, 530.

Group B, English and Comparative Literature: Comparative Literature 561 (when offered as European Children's Literature); English 496**, 501, 502, 526**, 527**, 528**, 549**

[^19]
## Courses (engl)

## LOWER DIVISION COURSES

## 220. Introduction to Literature (3) I, II

Prerequisite: A grade of C (2.0) or better in Africana Studies 120 or Chicana and Chicano Studies 111B or Linguistics 100 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 nonspecialist. Specific works studied will be representative of several genres, cultures, and periods of literature.

## 250A-250B. Literature of the United States (3-3) <br> (250A: CAN ENGL 14)

Prerequisite: A grade of C (2.0) or better in Africana Studies 120 or Chicana and Chicano Studies 111B 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.

## 260A-260B. English Literature (3-3) I, II <br> (260A + 260B: CAN ENGL SEQ B)

(260A: CAN ENGL 8) (260B: CAN ENGL 10)
Prerequisite: A grade of C (2.0) or better in Africana Studies 120 or Chicana and Chicano Studies 111B 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.

## 280. Introduction to Creative Writing (3) I, II (CAN ENGL 6)

Prerequisite: A grade of C (2.0) or better in Africana Studies 120 or Chicana and Chicano Studies 111B 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.

## 281. Creative Writing: Selected Genres (3)

Prerequisite: A grade of C (2.0) or better in Africana Studies 120 or Chicana and Chicano Studies 111B 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.

## 296. ExperimentalTopics (1-4)

Prerequisite: A grade of C (2.0) or better in Africana Studies 120 or Chicana and Chicano Studies 111B 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)

301. The Psychological Novel (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Psychological novel from its inception to present, including major works from a variety of cultures. Readings designed to aid students in discovering insights which great novelists have unearthed in their explorations of the human psyche.
302. Introducing Shakespeare (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Representative tragedies, comedies, and histories. Primarily for the general student not specializing in English or comparative literature. This course does not count toward the English or comparative literature majors. Majors are required to take English 533.

## 306A-306W. Children's Literature and Advanced Composition

 (3-3) I, IIPrerequisites: Rhetoric and Writing Studies 200. English 306A and 306W must be taken concurrently. Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Communication 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.
405. The Bible as Literature (3) I, II
(Same course as Comparative Literature 405.)
Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Prose and poetry of the King James version.

## 409. Science Fiction (3)

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.
410. Literature and the Passions (3)

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.

## 491. Contemporary Topics in Literature (3)

Exploration of writers, works and topics in fiction, poetry, drama, and film, emphasizing the relationship between literature and current concerns. Topics include the city in fiction and film, literature and identity, literature of death, literature of contemporary myth and folklore, women in literature. Primarily for the general student not specializing in English or comparative literature. May count only as an elective course toward the English major. May be repeated with new title and content. Maximum credit six units. See Class Schedule for specific content.

## 493. Literature and Film (3)

Relationships between film and genres of literature, focusing on a critical comparison of the techniques of rhetoric, fiction, and drama and those of film. Topics include literature and film, novel into film, drama and film, reading film. Primarily for the general student not specializing in English or comparative literature. May count only as an elective course toward the English major. May be repeated with new title and content. Maximum credit six units.
494. Modern Fiction of the United States (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Representative works by twentieth century American authors such as Cather, Hemingway, Steinbeck, Faulkner, Fitzgerald, Ellison, Welty, Bellow, Vonnegut, Heller, Walker, others. Primarily for the general student not specializing in English or comparative literature. May count toward the English major only as an elective.
496. Selected Topics in English (1-4)

Specialized study of a selected topic in literature. May be repeated with new title and content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.
499. Special Study (1-3) I, II

Prerequisites: Consent of instructor and approval of department chair.

Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

## (Also Acceptable for Advanced Degrees)

Prerequisite for all 500-level courses: Six lower division units in courses in literature and/or creative writing.
501. Literature for Children (3) I, II

Critical analysis of literature intended for children. Study of texts and illustrations.

## 502. Adolescence in Literature (3)

Prerequisite: Six units in literature.
Works centrally concerned with an adolescent protagonist. Includes both traditional novels of development (Bildungsroman) and contemporary young adult novels.

## 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.

## 508W. The Writing of Criticism (3) I, II

Prerequisites: Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Communication 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.

## 510. Teaching Literature (3)

Prerequisite: Six units in 500-level literature courses
Theory and practice of teaching literature in high schools, colleges, and universities; various critical approaches (such as feminist, new historical, deconstruction, reader response) to literature and their implications for teaching and developing teaching styles.

## 519. 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.
520. African-American Literary Tradition (3)

Prerequisite: Six units in literature.
African-American literature from its eighteenth-century beginnings to the present. Early political and social concerns and concomitant utilitarian forms; aesthetic concerns and forms in nineteenth and twentieth centuries.

## 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.
522. Literature of the United States, 1800-1860 (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.
523. Literature of the United States, 1860-1920 (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.
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.
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.

## 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.

## 527. Genre Studies in Literature of the United States (3)

Study of a specific literary genre: overview of the genre's development in United States literature (the U.S. novel, the U.S. short story, U.S. poetry) or focus on a narrower period (the modern U.S. novel, the contemporary U.S. novel, U.S. autobiographies, others). May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

## 528. Individual United States Authors <br> (3)

Works of a major United States author or, if useful comparisons and juxtapositions warrant it, the works of two or three authors: Melville, Twain, James, Faulkner, Steinbeck, Cather, Morrison; or Pound and Eliot, Emerson and Thoreau, Vonnegut and Barth, Rich and Levertov, and others. See Class Schedule for specific content. May be repeated with new title and content. Maximum credit six units.

## 529. Medieval Literature (3)

English literature from its birth through high middle ages.

## 530. Chaucer (3)

Chaucer's works, with emphasis on The Canterbury Tales and Troilus and Criseyde.

## 531. Renaissance Literature (3)

English poetry and prose from 1485 to 1603.

## 533. Shakespeare (3) I, II

An introduction to the writings of Shakespeare. This course cannot be used in place of English 302 to satisfy General Education requirements.

## 534. Study of Shakespeare

(3)

Prerequisite: English 533.
Advanced study of Shakespeare's achievement as poet and playwright. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

## 536. Seventeenth Century Literature (3)

English poetry and prose from 1603 to 1660.
537. Milton (3)

Milton's writings, with emphasis on Paradise Lost.
538A-538B. Restoration and Eighteenth Century Literature (3-3)
English literature in the neoclassical era. Semester I: Dryden, Swift, Pope, and their contemporaries. Semester II: Writers of the middle and late eighteenth century.

## 540A-540B. English Fiction (3-3)

The development of English fiction from its beginnings to the end of the nineteenth century. Semester I: The eighteenth century. Semester II: The nineteenth century.

## 541A-541B. English Drama (3-3)

English dramatic literature from its beginnings to the present. Semester I: From the beginning to 1642. Semester II: Period following reopening of the theatres in 1660.

## 542. Romantic Literature (3)

Representative British works from the 1790s to the 1830s by such writers as Wollstonecraft, Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, Austen, and Scott.

## 543. Victorian Literature (3)

Representative British works from 1837 to 1890 by such writers as Carlyle, Tennyson, Ruskin, Browning, Dickens, Arnold, Eliot, and Pater.

## 544. British Literature, 1890-1918 (3)

Representative British works from 1890 to 1918 by such writers as Hardy, Gissing, Shaw, Conrad, Yeats, Wells, Forster, Mansfield, and the World War I poets.

## 547. British Literature, 1918-1950

Representative British works from 1918 to 1950 by such writers as Joyce, Woolf, Lawrence, T.S. Eliot, Mansfield, Huxley, Bowen, Greene, Auden, Orwell, and Thomas.
548. British Literature, 1950 to Present (3)

Representative British works from 1950 to the present by such writers as Golding, Amis, Murdoch, Lessing, Pinter, Hughes, Fowles, Stoppard, Drabble, and Ishiguro.

## 549. Topics in English Literature (3)

The works of Spenser, the metaphysical school of poetry, the English satirists, major movements in contemporary English fiction, and the like. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

## 560A. British Literature, Beginnings Through the Eighteenth Century (3) I, II

Survey of major British writers, with emphasis on reading of complete works. From the beginnings to the neoclassical period. Especially appropriate for those who will teach British literature, and for those proceeding on to graduate study.
560B. British Literature, Romanticism to the Present (3) I, II
Survey of major British writers, with emphasis on reading of complete works. Begins with the Romantic writers. Especially appropriate for those who will teach British literature, and for those proceeding on to graduate study.

## 570. Techniques of Poetry <br> Prerequisite: English 280.

(3)

Techniques of poetry from the creative writer's point of view. Introduction to critical and theoretical literature on poetry. Includes a creative writing workshop.

## 571. Techniques of the Short Story (3)

Prerequisite: English 280.
Techniques of the short story from the writer's point of view. Introduction to critical and theoretical literature on the short story. Includes a creative writing workshop.

## 573. Techniques of the Novel (3)

Prerequisite: English 280.
Techniques of the novel from the writer's point of view. Introduction to critical and theoretical literature on the novel. Includes a creative writing workshop.
576. Literary Editing and Publishing

Prerequisite: English 280.
Principles and practices of editing and literary publishing. Workshop on small press publishing. Includes editing and publishing workshop.

## 577. Techniques of Screenwriting (3)

Prerequisite: English 280 or 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.

## 579. Topics in Creative Writing (3)

Prerequisite: English 280.
Techniques of creative writing focusing on a specialized genre such as comedy, science fiction, and biography. Study of the critical and theoretical literature on the genre. Includes a creative writing workshop. See Class Schedule for specific content. Maximum credit six units.
580. Writing of Poetry (3) I, II

Prerequisite: English 570.
A creative writing workshop in poetry. Continuation of English 570. Maximum credit six units.

## 581W. Writing of Fiction (3) I, II

Prerequisites: English 280. Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Communication 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.
583. Writing Long Narrative (3)

## Prerequisite: English 573.

A creative writing workshop in long narrative, especially the novella or novel. Continuation of English 573. Maximum credit six units.

## 584W. Writing Informal Essays (3) I, II

Prerequisites: English 280. Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Communication 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.

## 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.

## 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 Bulletin of the Graduate Division.

# Environmental Engineering 

In the College of Engineering

OFFICE: Engineering 424<br>TELEPHONE: (619) 594-6071<br>EMAIL: environmental@engineering.sdsu.edu

## Faculty

Emeritus: Stratton
Chair: Supernak
The Blasker Chair in Environmental Engineering: Gurol
Professor: Gurol
Assistant Professors: Badriyha, Buyuksonmez

## Offered by the Department of Civil and Environmental Engineering

Doctor of Philosophy degree in engineering sciences/applied mechanics.
Master of Science degree in civil engineering.
Concentration in environmental engineering.
Major in environmental engineering with the B.S. degree.

## 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 Bulletin of the Graduate Division 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.

## Transfer Credit

No credit will be given for upper division engineering coursework taken at an institution having an engineering program which has not been accredited by the Accreditation Board for Engineering and Technology, Inc., unless the student successfully completes the first 12 units of engineering work attempted at this university. At that time, and upon recommendation of the department, 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, III, and IV combined (Foundations, American Institutions, and Explorations).
I. Communication and Critical Thinking: 9 units

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)
II. Foundations: 29 units
A. Natural Sciences and Quantitative Reasoning (17 units):
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 201A, 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
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.

## Environmental Engineering Major

With the B.S. Degree (Major Code: 09221)
NOTE: See chart on the preceding 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. The student's choice of elective courses must be made in consultation with the adviser and documented by filing an approved master plan as soon as the environmental engineering major is declared. Students are required to see their adviser prior to preregistration each semester.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

## Courses (enve)

Note: Proof of completion of prerequisites (copy of transcript) is required for all courses which list prerequisites.

## LOWER DIVISION COURSES

101. Environmental Engineering Seminar (1) 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 ora presentations on selected environmental topics. Maximum credit two units. (Formerly numbered Civil and Environmental Engineering 101.)
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)
320. Designing Solutions for Environmental Problems (3) 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. (Formerly numbered Engineering 320.)
355. Environmental Engineering (3) II, III

Prerequisite: Chemistry 200.
Causes and effects of environmental problems and engineering methods to control them. (Formerly numbered Civil and Environmental Engineering 355.)
496. Advanced Environmental Engineering Topics (1-3) I, II

Prerequisites: 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
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)

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. (Formerly numbered Civil and Environmental Engineering 553.)

## 554. Process Fundamentals of Environmental Systems (3) I

Prerequisites: Environmental Engineering 355 and Engineering Mechanics 340.

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. (Formerly numbered Civil and Environmental Engineering 554.)

## 555. Water and Wastewater Engineering (3) I

Prerequisites: Environmental Engineering 355 and Engineering Mechanics 340

Water and wastewater. Physical, chemical and biological methods of treatment. Advanced waste treatment processes. Water reclamation. (Formerly numbered Civil and Environmental Engineering 555.)

## 556. Pollution Engineering (3)

Prerequisite: Environmental Engineering 355.
Sources of air pollutants. Transportation, diffusion, and transformation of pollutants in the atmosphere. Measurement and control of air pollution. (Formerly numbered Civil and Environmental Engineering 556.)

## 558. Solid Waste Engineering (3)

Prerequisite: Environmental Engineering 355.
Management of municipal solid waste from a civil engineering perspective, including waste minimization and recycling. Engineered volume reduction through composting, incineration, mechanical compaction, and other methods. Ultimate disposal, landfill design and legislative regulations. (Formerly numbered Civil and Environmental Engineering 558.)

## 560. Environmental Engineering Design (3) II

Prerequisites: Environmental Engineering 555, 558 and Engineering 430.

Application of engineering principles and design techniques to design of environmental engineering projects. (Formerly numbered Civil and Environmental Engineering 560.)

## 596. Advanced Environmental Engineering Topics (1-3) I, I

Prerequisites: 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 Bulletin of the Graduate Division.

> For additional courses which are electives in the environmental engineering program, refer to "Civil Engineering" in this section of the catalog

## Environmental Sciences

OFFICE: Geology/Mathematics/Computer Science 604
TELEPHONE: (619) 594-5142
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), Deutschman (Biology), Ganster (Regional Studies of the Californias), Matt (Psychology), Shapiro (Field Station Programs), Sweedler (Physics), Thorbjarnarson (Geological Sciences), Van Schoik (Southwest Center 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.

## 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.

## 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; Biology 215 or Statistics 250; Chemistry 200, 201, 231; Computer Science 205; Geological Sciences 100, 101; Geography 103; and Mathematics 150, Physics 195, 195L, 196, 196L, or Mathematics 121, 122, Physics 180A, 180B, 182A, 182B. (48-50 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include Environmental Sciences 498A-498B; Biology 354; Chemistry 371; Geography 508 or 511; Geography 484 or 488 or Geological Sciences 505; Geological Sciences 305 or Environmental Engineering 355; Geological Sciences 545 or Oceanography 541; 12 units selected from Biology 350, 517, 540, Chemistry 571, Computer Science 558, Economics 452 or 453, Geography 570,572,574, Geological Sciences 530 and 530 L or 551, Mathematics 336.

## Courses (env s)

## LOWER DIVISION COURSES

## 100. Environmental Sciences (3) <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.

## 299. Special Study <br> (3)

Prerequisite: Consent of program director and instructor. Individual Study.

## UPPER DIVISION COURSES (Intended for Undergraduates)

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
EMAIL: euro.coord@sdsu.edu

## Faculty

Interim Chair: Benkov
Professors: Benkov, Loughrin-Sacco, Lyman-Hager, Schorr, Shapovalov
Associate Professors: Cornwell, Donadey, Wauchope
Assistant Professor: Guidotti, Lovrien-Meuwese
Lecturers: Brayton, Chang, Fellin

## 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.

## 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: 13-26 units.)
I. European Studies (3 units). European Studies 101.
II. Foreign Language and Culture (Select one: 10-23 units.)

French 100A, 100B, 201, 210, 220, 221. (22 units)
German 100A, 100B, 200, 205A, 205B. (21 units)
Italian 100A, 100B, 201, 210. (16 units)
Portuguese 101, 201. (10 units)
Russian 100A, 100B, 200A, 200B, 211. (23 units)
Spanish 101, 102, 103, 202, 211, 212. (22 units)
Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. (Complete I and II below: 30 units.)
I. European Studies (18 units). Nine upper division units in European studies to include European Studies 301 and 501; General Studies 450 or Humanities 404; and nine additional units selected from European Studies 424, 501, Art 558, 559, Comparative Literature 514, Geography 336, 337, History 407, 408, Humanities 310, 320, 330, 340, 401, 402, 403, Women's Studies 340.
II. Foreign Language and Culture (12 units). Twelve upper division units in French, German, Italian, Portuguese, Russian, or Spanish (to include French 301 or German 301 or Italian 301 or Portuguese 401 or Russian 301 or Spanish 302).

## Russian and 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, 200A, 200B. (20 units)

Lower division prerequisites for the upper division courses to be taken in the major. (3-9 units)

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 33 upper division units to include Economics 330, Geography 337, History 518A-518B, Humanities 330, Political Science 359; nine units of upper division Russian courses; and six units of electives selected with the approval of the adviser.

## 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 foreign 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)

## LOWER DIVISION COURSES

100. New Perspectives in European Studies (1) $\mathrm{Cr} / \mathrm{NC}$

New interpretations of European language, culture, politics, and social issues. Presentations from perspective of various disciplines. Contemporary issues.

## 101. Introduction to European Studies (3) I, II

Europe: The land, the people, their artistic, intellectual and cultural movements, including art, architecture, languages and literatures.

## 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)

## 301. Contemporary Europe (3) 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.
424. European Cinema (3)

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.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 499. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSE

(Also Acceptable for Advanced Degrees)

## 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.

## 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.

## 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.

## 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 

In the College of Professional Studies and Fine Arts

OFFICE: Exercise and Nutritional Sciences 351<br>TELEPHONE: (619) 594-5541

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, Friedman, Grawunder, Gutowski, Kasch, King, Landis, Phillips, Quinn, Schwob, Selder, Sleet, Smith, Sucec, Tollefsen, Wells, Whitby, Wilhelm, Williamson, Ziegenfuss
Chair: LaMaster
Professors: Aufsesser, Buono, Francis, P., McKenzie, T., Mechikoff,
Moore, Nichols-Bernhard, Patterson, Rushall, Simmons, Verity
Associate Professors: Franz, Kolkhorst, LaMaster, Wiksten
Assistant Professors: Kahan, Levy, Marshall, Yaggie
Lecturers: Fletcher, Francis, L., McKenzie, R., Polz, Voigt

## Offered by the Department

Master of Arts degree in physical education.
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.
Minor in physical education.

## 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 offers students two tracts of study. One tract leads students to a career in athletic training and eligibility to sit for the National Athletic Trainers' Association (NATA) certification examination. The other tract offers students an overview of athletic training courses that may be applied to other programs in the allied health setting, such as physical therapy, biomechanics, and medicine. 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; and professional athletics. The tract toward certification as an athletic trainer includes
additional elective courses that are required in order to sit for the NATA Board of Certification examination. In addition, a minimum two-year clinical internship must be completed as part of the Athletic Training Professional Program. Admission to the Athletic Training Professional Program is competitive and limited in number. Applications are accepted each spring for fall selections. Students interested in seeking NATA certification and applying to the professional program should meet with the athletic training program director.

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. Students must apply to enter the University under the kinesiology premajor code (08350).

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 45 semester units applicable to the lower division General Education requirements to include all Preparation for the Major requirements for kinesiology major emphasis, and electives if needed to reach 45 units. Exercise and Nutritional Sciences 210, 265, 265L and Biology 212 cannot be in progress when changing from premajor to major status;
c. Have a cumulative GPA and SDSU GPA applicable to the major emphasis:

Athletic Training - 2.50 or higher and acceptance in the athletic training professional program
Fitness, Nutrition, and Health - 2.50 or higher
Physical Education - 2.50 or higher
Pre-Physical Therapy - Rehabilitation Science (a) - 2.50 or higher, Kinesiotherapy (b) - 2.50 or higher and acceptance in the kinesiotherapy professional program;
d. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment);
e. 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).

## Kinesiology Major

With the B.S. Degree in Applied Arts and Sciences (Premajor Code: 08350) (Major Code: 08351)

All candidates for a degree in applied arts and sciences must complete the requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major except for the Emphasis in Physical Education, which requires completion of 12 units towards a minor or supplementary authorization.

## 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)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. 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, 464, 465; 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)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 51 upper division units to include 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.

Completion of 12 units towards a minor or supplementary authorization is required. In conjunction with the department undergraduate adviser, the student must determine a specific course of study to establish a formal program for supplementary authorization or minor. The program must be filed with the Office of Advising and Evaluations.

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)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 51 upper division units to include Exercise and Nutritional Sciences 301, 302, 303, 304, 304L, 305, 306, 307, 335, 341, 347A, 347B, 348, 351, 401A, 401B, 441A, 441B, 441C, 442A, 442B, 445; Biology 336. Biology 336 will also satisfy three units of the General Education requirement (IV.A.). Recommended: Students should take Sociology 355 to satisfy the General Education requirement (IV.B.).

## 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)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 40 upper division units to include 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

## No new students will be admitted to this specialization.

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.

## Physical Education Minor

Coaching: The coaching of athletic teams is an integral part of the field of physical education. The physical education minor has been created for the purpose of allowing undergraduate students to study the scientific and technical bases of sport coaching. Completion of the minor will provide students with the qualifications for coaching in public and private schools, community athletic/sport programs, club sport programs, or other areas where coaching knowledge and experience is needed.

Psychology 101 is prerequisite to the minor and should be taken to satisfy General Education. Requirements for the minor are a minimum of 24 units to include Exercise and Nutritional Sciences 210, 265, 265L, 301, 307, 351, 352 or 353 (2 units), 398 (3 units), Biology 212; and one of the following: Biology 215, Economics 201, Psychology 270, Sociology 201, or 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.

## 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)

## LOWER DIVISION COURSES

Courses offered for one unit credit meet two hours per week or equivalent. "A" signifies a beginning class, " $B$ " intermediate.

> Dance activity courses: Ballroom Dance, Folk Dance, Ballet, Jazz Dance, Modern Dance. Refer to "Dance" in this section of the catalog.
102. Conditioning (1) I, II
(Formerly numbered Physical Education 102 and 102A.)
104A-104B. Weight Training (1-1) I, II
(Formerly numbered Physical Education 104A-104B.)
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. (Formerly numbered Physical Education 105.)
108A-108B. Basketball (1-1) I, II
(Formerly numbered Physical Education 108A-108B.)
109A-109B. Soccer (1-1) I, II
(Formerly numbered Physical Education 109A-109B.)
110A-110B. Volleyball (1-1) I, II
(Formerly numbered Physical Education 110A-110B.)
111A-111B. Softball (1-1) I, II
(Formerly numbered Physical Education 111A-111B.)
116A-116B. Golf (1-1) I, II
(Formerly numbered Physical Education 116A-116B.)
118A-118B. Tennis (1-1) I, II
(Formerly numbered Physical Education 118A-118B.)
119A-119B. Bowling (1-1) I, II
(Formerly numbered Physical Education 119A-119B.)
120A-120B. Badminton (1-1) I, II
(Formerly numbered Physical Education 120A-120B.)
123A-123B. Racquetball (1-1) I, II
(Formerly numbered Physical Education 123A-123B.)
124. Sailing (1)
(Formerly numbered Physical Education 124.)
125. Men's Gymnastics Apparatus (1)
(Formerly numbered Physical Education 125.)
127A-127B. Women's Gymnastics Apparatus (1-1) I, II (Formerly numbered Physical Education 127A-127B.)
130. Step Training (1) I, II
(Formerly numbered Physical Education 130.)
137A. Aerobic Dance (1) I, II
(Formerly numbered Physical Education 137A.)

## 138. Selected Activities (1) I, II

May be repeated with new activity for additional credit. See Class Schedule for specific content. (Formerly numbered Physical Education 138.)
139A. Beginning Rock Climbing (1) I, II
Two hours of activity.
Rock climbing concepts and theories. Active participation using beginning techniques and training concepts.

## 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.

## 141A-141B. Martial Arts (1-1) I, II

Exercise and Nutritional Sciences141A is prerequisite to 141B. (Formerly numbered Physical Education 141A-141B.)
145. Wakeboarding and Waterskiing (1) I, II
(Formerly numbered Physical Education 145.)

## 146. Surfing (1) I, II

(Formerly numbered Physical Education 146.)
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. (Formerly numbered Physical Education 147.)

## 210. Introduction to Kinesiology (2) I, II

Overview of discipline of kinesiology. Development of a basic philosophy and background for entering profession. (Formerly numbered Physical Education 210.)

## 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.
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. (Formerly numbered Physical Education 241A.)

## 241B. Physical Education of Children-Activities (1) I, II <br> 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. (Formerly numbered Physical Education 241B.)
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. (Formerly numbered Physical Education 265.)

## 265L. Techniques in Athletic Training Laboratory (1) I, II

Three hours of laboratory.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 265. (Formerly numbered Physical Education 265L.)

## 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.
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.

## 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)

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. (Formerly numbered Physical Education 301.)
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. (Formerly numbered Physical Education 302.)
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. (Formerly numbered Physical Education 303.)

## 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. (Formerly numbered Physical Education 304.)

## 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 Physical Education 314, 362 and Exercise and Nutritional Sciences 314.)

## 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. (Formerly numbered Physical Education 305.)

## 306. Biomechanics of Human Movement (3) I, II

Prerequisite: Exercise and Nutritional Sciences 303. Limited to kinesiology majors. Major Code: 08351.

Mechanical principles as applied to movement; analysis and application to selected motor skills. (Formerly numbered Physical Education 306.)

## 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. (Formerly numbered Physical Education 307.)

## 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 460, Oceanography 305, 306. (Formerly numbered Physical Education 320.)

320L. Skin and Scuba Diving Laboratory (1)
Three hours of laboratory.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 320. (Formerly numbered Physical Education 320L.)

## 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 460, Oceanography 306.
323L. Advanced Scuba Diving Laboratory (1)
Three hours of laboratory.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 323.
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. (Formerly numbered Physical Education 324.)
324L. Assistant Scuba Instructor Laboratory
(1)

Three hours of laboratory.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 324. (Formerly numbered Physical Education 324L.)
330. Exercise and Wellness Across the Lifespan (3) 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.

## 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.

Philosophy and practical application of educational gymnastics and dance; selection of music and step patterns needed for aerobic dance activities that are appropriate for primary school children. (Formerly numbered Physical Education 335.)

## 341. Skill Competency in Physical Education (2) $\mathbf{C r} / \mathrm{NC}$ 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. (Formerly numbered Physical Education 341.)
347A. Leadership for Kinesiology (2) I, II
Prerequisites: Exercise and Nutritional Sciences 301, 303, 305. 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. (Formerly numbered Physical Education 347A.)
347B. Leadership for Kinesiology Activity (1) I, II
Two hours of activity.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 347A.
(Formerly numbered Physical Education 347B.)
348. Special Physical Education (3) I, II

Prerequisites: Exercise and Nutritional Sciences 347A, 347B, and Psychology 101.

Etiologies, characteristics, education programs, and activities for individuals with non-physical disabilities (e.g. mentally retarded, learning disabled, etc.) (Formerly numbered Physical Education 348.)

## 351. Basic Coaching Theory (2) I

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. (Formerly numbered Physical Education 351.)
352. Theory and Analysis of Coaching Competitive Sports (2)

Mechanical analysis, tactics, and strategy, scouting, officiating, and rules and daily-seasonal practice planning in one of the sports listed below.
A. Basketball (Formerly numbered Physical Education 352A.)
B. Football (Formerly numbered Physical Education 352B.)
C. Baseball (Formerly numbered Physical Education 352C.)
D. Track and Field (Formerly numbered Physical Education 352D.)
E. Volleyball (Formerly numbered Physical Education 352E.)
F. Additional sports (May be repeated with new content.)
(Formerly numbered Physical Education 352F.)
353. Coaching Elite Athletes (2)

Prerequisite: Exercise and Nutritional Sciences 351.
Psychological and leadership factors and actions that are necessary to produce the best training and competitive performances in serious athletes. (Formerly numbered Physical Education 331F, 332E and 353.)

## 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. (Formerly numbered Physical Education 363.)

## 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. (Formerly numbered Physical Education 365.)

## 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.)

## 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.)

## 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.)

## 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.)
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 367 L; consent of instructor.

Supervised clinical experience working in the adapted physical education laboratory setting on campus with individuals with disabilities. Maximum credit four units. (Formerly numbered Physical Education 388.)
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. (Formerly numbered Physical Education 389 and Exercise and Nutritional Sciences 389.)

## 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. (Formerly numbered Physical Education 397.)

## 398. Supervised Field Experience (1-3) Cr/NC I, II, S

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. (Formerly numbered Physical Education 398.)

## 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. (Formerly numbered Physical Education 401A.)

## 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. (Formerly numbered Physical Education 401B.)

## 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. (Formerly numbered Physical Education 412.)
431. Administration of Exercise and Fitness Program (2) I, II

Prerequisites: Exercise and Nutritional Sciences 303, 304, 304L.
Administration and management of corporate, private, universitybased, and hospital-based exercise programs. (Formerly numbered Physical Education 431.)

## 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. (Formerly numbered Physical Education 432.)

## 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. (Formerly numbered Physical Education 432L.)
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. (Formerly numbered Physical Education 433.)

## 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.

## 441. Practicum: Physical Education Activities (2) I, II <br> 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. Racquet Sports

Additional prerequisite: Exercise and Nutritional Sciences 341 (badminton and tennis only). (Formerly numbered Physical Education 441A.)
B. Indoor Sports

Additional prerequisite: Exercise and Nutritional Sciences 341 (basketball and volleyball only). (Formerly numbered Physical Education 441B.)
C. Field Games

Additional prerequisite: Exercise and Nutritional Sciences 341 (soccer and softball only). (Formerly numbered Physical Education 441C.)
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. (Formerly numbered Physical Education 442A.)

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442B. Physical Education for Elementary Schools
        Activity (1) I, II
Two hours of activity.
Prerequisite: Concurrent registration in Exercise and Nutritional
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## Sciences 442A.

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(Formerly numbered Physical Education 442B.)
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445. Organization and Administration of Physical Education (3) I, II
Two lectures and two hours of activity.
Prerequisite: Exercise and Nutritional Sciences 347A.
Organization of physical education programs in the public schools. Includes curriculum development, program content, legal bases, materials, facilities and constraints in the discipline of physical education. (Formerly numbered Physical Education 380 and 445.)
446. Professional Issues (1) $\mathbf{C r} / \mathbf{N C}$ I, II

Prerequisite: Senior standing in prephysical therapy specialization.
Current issues relevant for one preparing to enter an allied health profession. (Formerly numbered Physical Education 460.)

## 461. Sport Psychology (3)

Prerequisite: Exercise and Nutritional Sciences 307.
Psychological factors underlying behavior in sport and physical activity. Emphasis on personality and motivational factors. (Formerly numbered Physical Education 461.)

## 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. (Formerly numbered Physical Education 462.)
463. Principles and Techniques in Therapeutic Exercise (2) I, II

Prerequisites: 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. (Formerly numbered Physical Education 463.)

463L. Principles and Techniques in Therapeutic Exercise Laboratory (1) I, II
Three hours of laboratory.
Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 463. (Formerly numbered Physical Education 463L.)
464. Pathomechanics of Athletic Injuries (3) II

Prerequisite: Exercise and Nutritional Sciences 365.
Pathology and mechanics associated with common sports injuries. Signs and symptoms related to cause of injury. Common treatment and interventions. (Formerly numbered Physical Education 464.)
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.

## 477. Therapeutic Practices of Kinesiotherapy (3)

Prerequisite: Credit or concurrent registration in Exercise and Nutritional Sciences 487A.

Foundations of physical disability and description of pathological processes often treated in kinesiotherapy.
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.
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.
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.

## 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.
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.
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.
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.
496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 499. Special Study (1-3) I, II, S

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)
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 Bulletin of the Graduate Division.

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

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: Fisher, Hippaka, Houston, Hungate, Hutchins, Nye, Reints, Schmier
Chair: Varaiya
Professors: Badrinath, Bost, Cherin, Do, Ely, Gitman, Haddad, Omberg, Salehizadeh, Short, Song, Sterk, Vandenberg, Varaiya, Warschauer
Associate Professors: Block, Sachdeva, Wilbur
Assistant Professor: 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 Finance Department offers three majors: Finance, Financial Services, and Real Estate. The finance major is broadest and may include courses in all areas.

Finance. All forms of human endeavor involve finance to some degree. Within our economic system, finance is concerned with capital, which is money or property owned or used in business. Finance majors study both the sources and the uses of capital. The finance curriculum revolves around the valuation process in a free market system. Once an individual or company can value various alternatives, the allocation of resources and the decision process in business becomes much simpler.

Students who are interested in business should have a thorough understanding of the financial process. Upon graduation, students accept a wide variety of positions with business in general. The curriculum of the finance major is designed to give the student breadth in a variety of fields in addition to finance and business.

Employment prospects for graduates with finance majors are very good and forecasts remain encouraging. Graduates are typically found in six types of employment: large and small industrial firms (manufacturers of automobiles, steel, household appliances, and electronic equipment); service oriented firms (electric power, real estate and retail firms); financial institutions (banks, state and federally chartered savings and loan associations, and insurance companies); nonprofit enterprises (universities, labor unions, and foundations); and private businesses.

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 major objective of the real estate program at SDSU is to prepare its graduates as well-rounded professionals with a specialty in the multifaceted field of real estate and land market analysis. The changing nature of today's real estate market requires that graduates from university real estate programs receive a complete and broad approach to this field. Graduates with a major in real estate should be capable of making a wide variety of management decisions concerning real estate and related land resources. This includes the ability to utilize new economic concepts, understand changing social concerns, and apply up-to-date analytical tools such as computers to the process of real estate decision making. SDSU's program in real estate provides students with analytical skills, technical competence to perform market analyses, and a better understanding of the tools necessary to perform in today's complex real estate and land markets. This is in addition to the conventional knowledge required for a license. It is the goal of the real estate program at SDSU to provide a high level of education, and thus prepare its graduates for job opportunities in a variety of organizations, large and small, public and private.

With more than two billion acres of land in the United States, important public and private decisions must be made every day about the use, management, and disposition of this vast real estate acreage. This means job opportunities for the real estate major are created in a variety of areas such as valuation, development, financing, brokerage, market analysis, and public regulation. Job opportunities in real estate may also exist even in times of economic uncertainty. For example, during recent times many enterprises, large and small, have turned their attention to maximizing returns generated by their often extensive real estate holdings. This has created a demand for a new real estate expert-one who can manage asset disposition, value existing properties, upgrade underutilized property, and negotiate lease terms and conditions. In addition, the changing nature of the financial environment in which real estate markets must operate has created a demand for people not only with basic real estate training, but also with good general business and financial skills. SDSU's real estate program recognizes this changing real estate environment and prepares majors for these diverse opportunities.

## 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 is concerned that each individual upper division student makes reasonable academic progress toward earning a degree. To this end, the College will counsel students who have earned less than a "C" (2.0) average each semester. Further, such students will be warned that continued poor performance may result in their removal from any business major.

## Transfer Credit

Lower Division: Courses clearly equivalent in scope and content to San Diego State University courses required for minors or as preparation for all business majors will be accepted from regionally accredited United States institutions and from foreign institutions recognized by San Diego State University and the College of Business Administration.

Upper Division: It is the policy of the San Diego State University College of Business Administration to accept upper division transfer credits where (a) the course content, requirements, and level are equivalent to San Diego State University courses and (b) where the course was taught in an 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. Students must apply to enter the University under the business administration premajor code (05011). To be admitted to the upper division finance, financial services, or real estate major, students must meet the following criteria:
a. Complete with a grade of C or higher: Accountancy 201 and 202; Finance 240 (formerly 140); Information and Decision Systems 180 and 290; 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. Clear the lower division competency requirement in writing. Refer to Graduation Requirements section of this catalog for details;
c. Complete a minimum of 60 transferable semester units;
d. Have a cumulative and SDSU GPA of 2.90;
e. 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;
f. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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).

## 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.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. Forty-four upper division units consisting of Finance 321, 323, 325, 327, 329, 423; Accountancy 325, 326; Information and Decision Systems 302; Management 350; Business Administration 404 or Management 405; Marketing 370; and six units selected from Finance 326, 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. A maximum of six lower division units in principles of accounting courses may be used to satisfy degree requirements.

## Financial Services Major

## With the B.S. Degree in Business Administration <br> (Major Code: 05043)

A minor is not required with this major.
Preparation for the Major. Accountancy 201 and 202; Economics 101 and 102; Economics 201 or Statistics 119; Finance 240; Information and Decision Systems 180 and 290; 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.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. Thirty-eight to 39 upper division units consisting of Finance 323, 326, 327, 331, 522, 589; Accountancy 503; Information and Decision Systems 302; Management 350; Business Administration 404 or Management 405; Marketing 370; six to seven units selected from Finance 421, 425, 431, 435*, 445, 523; Accountancy 326, 504; Economics 320 or 422, 490; and Marketing 377. 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. A maximum of six lower division units in principles of accounting courses may be used to satisfy degree requirements.

## * Prerequisite waived for this course.

## 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. Accountancy 201 and 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). (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.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. Thirty-nine to 40 upper division units consisting of Finance 323, 331, 335, 431 or 433, 435; 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. A maximum of six lower division units in principles of accounting courses may be used to satisfy degree requirements.

## 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 SDSU lower division writing competency requirement; 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 SDSU lower division writing competency requirement; 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 spaceavailable 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 22 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)

## LOWER DIVISION COURSE

## 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. (Formerly numbered Finance 140.)

## UPPER DIVISION COURSES (Intended for Undergraduates)

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.

## 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.

## 323. Fundamentals of Finance (3) I, II

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration. Proof of completion of prerequisite required: Change of major form or other evidence of acceptable major code.

Objectives of financial management. Financing the business enterprise. Internal financial management. Introduction to the cost of capital, valuation, dividend policy, leverage, international finance, and the techniques of present value and its applications. Sources of capital.

## 325. Intermediate Finance (4) I, II

Prerequisite: Finance 323 with minimum grade of $C$.
Capital expenditure decision process. Measuring and evaluating benefits and costs. Cost of capital and the evaluation process. Capital rationing problems. Risk and uncertainty in decision process. Agency theory, option pricing, and arbitrage pricing in decision process.

## 326. Financial Institutions Management (3) 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.

## 327. Investments (3) I, II

Prerequisite: Finance 323.
Measures of risk and return. Methods of security analysis, valuation, and capital asset pricing model. Portfolio theory and management; stocks, bonds, options, and futures; hedging; mutual funds and partnerships; and investment taxation.

## 329. International Business Finance <br> (3) I, II

Prerequisite: Finance 323.
Foreign exchange markets and instruments; international financial institutions; trade and balance of payments; exchange rate behavior and currency-risk hedging: cross-border investment; applications to management of international business.
331. Real Estate Essentials (3) I, II

Prerequisite: Completion of lower division course requirements in business major or minor.

Fundamental operations of the real estate market; principles of real property valuation, financing, law, investment, brokerage, management, and development.

## 333. Law of Real Property

Prerequisite: Finance 331.
Legal theory and practice of estates in land; landlord and tenant relationships; land transactions; mortgages and trust deeds; easements; land use; ownership rights in land; environmental law.

## 335. Land Markets and Real Estate Analysis <br> (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.
421. Portfolio Management and Security Analysis (3)

Prerequisite: Finance 327.
Market efficiency. Risk and utility analysis. Portfolio theory. Security analysis under modern investment theory. Advanced debt management and options techniques. Financial options and futures. Asset allocation and performance evaluation. Limited partnership investment analysis.

## 423. Financial Analysis and Management (4) I, II

Prerequisites: Finance 321 and 325. Strongly recommended: Accountancy 326.

Integration of various aspects of finance, application of financial theory. Financial decision making in the firm. Case study.

## 425. Business Forecasting (3)

Prerequisite: Finance 323.
Business fluctuations; forecasting, and related problems confronting the business firm; forecasting techniques; specific forecasts. The use of forecasts in the firm.

## 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
431. Real Estate Finance (3) I

Prerequisite: Finance 331.
Methods of financing real estate; sources of funds; governmental financial agencies; feasibility analysis for various types of properties.

## 433. Theory of Real Property Value (3) II

Prerequisite: Finance 331.
Introduction to theories of real property value. Techniques of value determination. Data analysis techniques.

## 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.
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.
496. Selected Topics in Finance (1-4)

Prerequisite: Consent of department chair.
Selected areas of concern in finance. See Class Schedule for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.
498. Investigation and Report (1-3) I, II

Prerequisites: Senior standing and consent of instructor.
A comprehensive and original study of a problem connected with finance under the direction of one or more members of the finance staff. May be repeated with new content. Maximum credit six units.

## 499. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

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

522. Individual Insurance Management (2) 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. (The combination of Finance 522 and 523 was formerly numbered Finance 521.)
523. Employee Benefit Planning (2) I

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. (The combination of Finance 522 and 523 was formerly numbered Finance 521.)
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 Bulletin of the Graduate Division.

## French

OFFICE: Business Administration 304
TELEPHONE: (619) 594-5111
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EMAIL: french.coord@sdsu.edu
WEB SITE: www-rohan.sdsu.edu/dept/frenital/french.html

## Faculty

Emeritus: Cox, Ghilbert, Jackson, Max, Nelson, Palmer Interim Chair: Benkov
Professors: Benkov, Edson, Loughrin-Sacco, Lyman-Hager, Schorr
Associate Professors: Cornwell, Donadey
Lecturer: Chang

## 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.

## 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.

## In the Department of European Studies In the College of Arts and Letters

Preparation for the Major. French 100A, 100B, 201, 210, 220, and 221. (22 units) Recommended: History 105, 106.

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 27 upper division units in French to include French 301, 302, 305A, 305B, and 15 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 in French, nine units of which must be in upper division courses, with a minimum of six upper division units completed in residence at San Diego State University.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable.

## 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.

## Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of French to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete French 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 foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first two years of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.
2. The first three years of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.
3. Four years of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the foreign language requirement.

## Courses (FRENC)

## 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.

## 100A. Elementary French I (5) I, II (CAN FREN 2)

(100A + 100B: CAN FREN SEQ A)
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.

## 100B. Elementary French II (5) I, II (CAN FREN 4) (100A + 100B: CAN FREN SEQ A)

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.

## 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 Foreign Language graduation requirement.
201. Readings in French (3) 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.

## 210. French Grammar (3) 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.

## 220. Grammar of Spoken French <br> (3) 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.
221. Writing French (3) 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.
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.
301. Advanced Grammar and Composition (3) I, II

Prerequisites: Twelve units of 200 -level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors.

Advanced grammar and stylistics, intensive writing practice.

## 302. Translation and Stylistics (3) I, II

Prerequisites: French 301, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors.

Comparative stylistics of French and English, taught through translation.

## 305A. Survey of French Literature (3) I

Prerequisites: Twelve units of 200 -level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors.

Important movements, authors, and works in French literature from the Middle Ages to the Revolution.

## 305B. Survey of French Literature (3) II

Prerequisites: Twelve units of 200 -level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors.

Important movements, authors, and works in French literature from the Revolution to present.
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.
421. French Civilization (3) I

Prerequisites: Twelve units of 200 -level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors.

French civilization from Middle Ages to the present. Artistic, intellectual achievements and cultural movements.

## 422. Contemporary France (3) II

Prerequisites: Twelve units of 200-level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors.

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

## 423. Commercial French (3) 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.

## 424. French Cinema and Theory <br> (3)

Two lectures and two hours of activity.
Prerequisites: Twelve units of lower division French. General Education students must also have completed Foundations II.C. Humanities.

French cinema emphasizing social, political, and cultural changes in modern France. Topics include film theory, the new wave, history in cinema, influence of feminism, French colonialism, race, class, and gender in modern culture. Taught in English.

## 465. Africa in Literature and Film (3)

(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.)

## 496. Topics in French Studies (1-4)

Topics in French literature, culture and linguistics. May be repeated with new content. Maximum credit nine units. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. May be taught in English. See Class Schedule for specific content.

## 499. Special Study (1-3) I, II

Prerequisites: French 302, 305A, 305B.
Individual study. Maximum credit six units. This course is intended only for students who are currently enrolled in or who already have credit for all upper division courses in French available in any given semester.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

## 501. Translation (3)

Prerequisite: French 302.
Stylistic comparison of French and English through translation of a variety of prose styles from English to French and from French to English.

## 520. French and Francophone Literary Studies <br> (3)

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.
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.
561. Linguistics and the Teaching of French (4)

Three lectures and two hours of laboratory.
Prerequisite: French 302.
Applied linguistics, methodology, and technology for teachers of French. Not open to students with credit or concurrent registration in Spanish 561.

## 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 Bulletin of the Graduate Division.

# General Mathematics Studies 

In the College of Arts and Letters

OFFICE: Nasatir Hall 227A
TELEPHONE: (619) 594-2225
FAX: (619) 594-6530

## Faculty

Chair: McClish
Lecturers: Capacia, Fulcomer, 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)

## LOWER DIVISION COURSES

## (Non-Baccalaureate Credit)

General mathematics studies courses numbered below 100 may not be used to satisfy general education or graduation requirements.

## 90A. Fundamentals of Mathematics (3) $\mathrm{Cr} / \mathrm{NC} / \mathrm{RP} \mathrm{I}, \mathrm{II}$,

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 90A. May be repeated with consent of instructor. Maximum credit six units. (Formerly numbered Academic Skills 90A.)

## *90B. Basic Algebra Review (3) Cr/NC I, II, S

Prerequisite: Appropriate score on the General Mathematics Studies diagnostic test or other standardized mathematics examination or participation in specified programs.

Course provides an overview of arithmetic (prealgebra), beginning algebra (linear equations and graphing, rational and radical expressions, polynomials), plane geometry (parallelism and perpendicularity, right triangles, similarity and congruence, perimeters, areas,
volumes), and selected topics from intermediate algebra (quadratic equations, conic sections, exponential and logarithmic functions). (Formerly numbered Academic Skills 90B.)

## **91. Intermediate Algebra <br> (3) $\mathrm{Cr} / \mathrm{NC}$ I, II, S

Prerequisites: Credit in General Mathematics Studies 90A, 90B or 99A, 99B 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.

## 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

99A. Fundamentals of Mathematics (Integrated Curriculum)

## 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 90A or 99A in their next semester.
*99B. Fundamentals of Mathematics (Integrated Curriculum)

## Cr/NC I, II

Three lectures and one hour of activity.
Prerequisites: Freshman class standing and participation in specified special program.

Topics covered include elementary algebra with review of arithmetic and topics from geometry and intermediate algebra. Class sessions augmented by one hour of reinforcement laboratory work each week. Prepares students for CSU Entry Level Mathematics Examination (ELM), but does not satisfy ELM requirement.

[^20]
#### Abstract

**99C. Intermediate Algebra (Integrated Curriculum) (4) Cr/NC Three lectures and one hour of activity. Prerequisite: Grade of "Cr" (credit) in General Mathematics Studies 99A or 99B or appropriate score on ELM or General Mathematics Studies diagnostic test and freshman class standing.

For freshmen who have attained "Cr" (credit) in General Mathematics Studies 99A or 99B or whose ELM or diagnostic score indicates that this is the appropriate level for them, but who have not yet satisfied the CSU-Entry Level Mathematics Examination (ELM) 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. **The ELM requirement is satisfied by this course only if the student has already attempted and failed the ELM.


## NOTE:

General Mathematics Studies 90A is equivalent to General Mathematics Studies 99A.
General Mathematics Studies 90B is equivalent to General Mathematics Studies 99B
Enrollment in General Mathematics Studies 99A, 99B and 99C is restricted to students participating in the Integrated Curriculum program.

## General Studies

The University offers a number of courses which are not part of a regular departmental curriculum. They provide students with opportunities for achieving academic credit through interdisciplinary and nontraditional coursework.

## General Courses (gen s)

## LOWER DIVISION COURSES

## 100. University Seminar (1) $\mathrm{Cr} / \mathrm{NC}$

Prerequisite: Open only to freshmen.
Provides opportunities to interact with faculty 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. Integrated Curriculum
C. Living Learning Center
130. Child and Adolescent Development from a Cultural Perspective (3)
Theories of human development using a cultural/ecological framework applied to case studies and direct observations. Open only to liberal studies majors.

## 200. Professional Experience and Community Service (1-3) $\mathrm{Cr} / \mathrm{NC}$

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-201. Applications must be submitted to the Division prior to the end of the first week of classes. May be used to satisfy major or minor requirements only upon written approval of department chair. No combination of General Studies 200 and 400 in excess of six units may be counted for credit toward a bachelor's degree.

## 275. Honors Special Study (1)

For further information contact the Division of Undergraduate Studies.

Prerequisite: Admission to the University Honors Program.
Special study associated with a lower division course offered as an honors section, and serving as an extension of the course.

## UPPER DIVISION COURSES

 (Intended for Undergraduates)321. Gay and Lesbian Identities in the Modern World (3)

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 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.

## 322. Gay and Lesbian History and Culture (3)

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.
330. Plagues Through the Ages (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Political, economic, religious, and cultural effects of disease. Significant role epidemics and disease have played in development of civilizations from beginning of recorded history to present.

## 340. Confronting AIDS (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning, II.B. Social and Behavioral Sciences, and II.C. Humanities.

Examines the AIDS epidemic from historical, epidemiological, biological, medical, psychological, political, legal, and ethical perspectives.

## 400. Professional Experience and Community Service <br> Cr/NC

(1-3)
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-201. 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.

## 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.

## 420. Disability and Society (3) I, II

Prerequisites: Psychology 101, Sociology 101, or Anthropology 101, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Range of human experience of 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.
450. Life and Culture Semester Abroad (3)

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 approved by the Division of Undergraduate Studies. Requires lecture attendance, excursions and site visits, examinations and written reports. See Class Schedule for geographic location.

## Interdisciplinary Courses (gens)

General Studies courses (250 or 350) are interdisciplinary selected topics courses.

Students interested in enrolling in General Studies 250 or 350 should contact the faculty adviser of the department(s) offering the course for further details. May be repeated with new content. Maximum credit four units.
250. Interdisciplinary Topics (1-4)
350. Interdisciplinary Topics
(1-4)

## OFFICE: Storm Hall 323

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## Faculty

Emeritus: Blick, Eidemiller, Greenwood, Johnson, Keen, Kiewiet de Jonge, O'Brien, Pryde, Quastler, Storm, Taylor, Wright, Yahr
Chair: Aguado
The Stephen and Mary Birch Foundation Chair in Geographical Studies: Getis
Professors: Aguado, Aitken, Ford, Fredrich, Getis, Griffin, Hope, Jankowski, McArthur, O'Leary, Stow, Stutz, Weeks
Associate Professor: Rey
Assistant Professors: Bosco, Pohl, Tague, Tsou

## Offered by the Department

Doctor of Philosophy degree in geography.
Master of Arts degree in geography.
Major in geography with the B.A. degree in liberal arts and sciences. Emphasis in methods of geographical analysis. Emphasis in natural resource and environmental geography. Emphasis in physical geography.
Emphasis in urban and regional analysis.
Minor in geography.
Certificate in geographic information 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 Geography Department to endow a chair and create a Center for Earth Systems Analysis Research. Dr. Arthur Getis, internationally recognized for his expertise in theory and methodology of spatial analysis applied to urban and economic systems, is the second holder of the Chair.

## The Major

Geography is the study of spatial aspects of the physical environment, human activities and landscapes, and the nature of their interactions. Geographers draw upon theories from both the physical and social sciences. As physical scientists, they study the processes and resulting features of the earth's surface, such as vegetation, climate, soils, landforms, and resources. As social scientists, geographers explore such topics as the arrangement of societies on the earth's surface, land use patterns, urbanization, resource and energy usage, and environmental conservation.

The Department of Geography offers a broad range of fields from which to select an emphasis. These include physical 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

## Geography

In the College of Arts and Letters

impact analyst, urban planner, cartographer, park ranger, transportation planner, travel agent, teacher, zoning investigator, terrain analyst. Some graduates have chosen to pursue opportunities in business where firms are interested in hiring college graduates with broad academic backgrounds.

## Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

## Geography Major

## With the B.A. Degree in Liberal Arts and Sciences (Major Code: 22061)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in geography courses can apply to the degree.

Graduation with Distinction. A student desiring to graduate with Distinction in Geography must meet the University requirements listed in the section of this catalog on "Graduation Requirements" and be recommended by the geography faculty.

## General Geography 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)
Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W, 581W, 584W, or Rhetoric and Writing Studies 305W, 500W, 503W with a grade of C (2.0) or better.

Major. A minimum of 27 upper division units in geography to include three units selected from each of the following groups: (a) Geography 321-337; (b) 353-354, 554-559, 585-586; (c) 370, 378, 483, 545, 570-577; (d) 378, 401, 409, 504-511, 545; (e) 380-381; (f) 385, 484, 488, 584-588, and nine units from one of the following groups: (a) Physical: Geography 378, 401, 409, 504-511, 545; (b) Natural Resource and Environmental: 370, 378, 545, 570-577; (c) Urban and Regional Analysis: 353-354, 385, 554-559, 585-586; (d) Methods of Geographical Analysis: 380-385, 484, 488, 584-588; (e) Cultural: 354,554 , but not more than six units from Geography 312, 321-339. No course may be used more than once to satisfy this requirement.

## Emphasis in Methods of Geographical Analysis

Students selecting this emphasis are not required to complete a minor in another department.

Preparation for the Major. Geography 101, 101L, 102; Computer Science 106 or 107; and a three-unit course in introductory statistics. (13 units)

Foreign Language Requirement. Competency (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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W, 581W, 584W, or Rhetoric and Writing Studies $305 \mathrm{~W}, 500 \mathrm{~W}, 503 \mathrm{~W}$, with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units in geography to include Geography 385; 15 units selected from Geography 380-381, 484, 488, 498, 584-588*; three units selected from each of the following groups: (a) 321-337; (b) 370, 483, 545, 570-577; (c) 353-354, 554559; six units selected from Geography 378, 401, 409, 504-511; and three units of upper division geography electives.

[^21]
## 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. (14 units)

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W, 581W, 584W, or Rhetoric and Writing Studies $305 \mathrm{~W}, 500 \mathrm{~W}, 503 \mathrm{~W}$, with a grade of $\mathrm{C}(2.0)$ or better.

## 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 321-337; 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 488 , three units from $584-588$ and 9 units from 483,545, 570-577, 595.

## Track (b): Environmental Policy

Additional Preparation for the major. Economics 101 or 102. (3 units)

Major. A minimum of 36 upper division units in geography to include Geography 370 and 385; three units from 380-381; three units from 321-337; 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 $488,584-588$ and 12 units from $483,545,570-577,595$.

## Emphasis in Physical Geography

Students selecting this emphasis are not required to complete a minor in another department.

Preparation for the Major. Geography 101, 101L, 102; Mathematics 121 or 150; Chemistry 200; Physics 180A, 182A. (19-21 units)

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W, 581W, 584W, or Rhetoric and Writing Studies $305 \mathrm{~W}, 500 \mathrm{~W}, 503 \mathrm{~W}$, with a grade of $\mathrm{C}(2.0)$ or better.

Major. A minimum of 36 upper division units in geography to include Geography 380, 385; fifteen units selected from Geography $378,401,409,498,504-511^{*}$; six units selected from Geography 484, 488, 584-588; and three units selected from each of the following groups: (a) 321-337; (b) 353-370, 545, 554-577; and three units of electives.

* Geography 595 may be used to satisfy three units in this group where appropriate and approved by the department.


## Emphasis in Urban and Regional Analysis

Students selecting this emphasis are not required to complete a minor in another department.

Preparation for the Major. Geography 101, 101L, 102; Computer Science 106 or 107; Economics 102. (13 units)

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W, 581W, 584W, or Rhetoric and Writing Studies $305 \mathrm{~W}, 500 \mathrm{~W}, 503 \mathrm{~W}$, with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units in geography to include Geography 385; 15 units selected from Geography 353-354, 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) 321-337; (b) 370, 483, 545, 570-577; (c) 380-381; and three units of electives.

* Geography 595 may be used to satisfy three units in this group where appropriate and approved by the department.


## Geography Major

With the B.S. Degree in Applied Arts and Sciences
San Diego State University is in the process of securing approval for the B.S. degree in Geography. For further information, contact the Department of Geography.

## 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; Biology 100, 100L; Chemistry 200; Computer Engineering 160, 260; Mathematics 121, 122; Physics 180A, 182A; Statistics 250. (41 units)

Major. A minimum of 36 upper division units to include Geography 381, 385, 484, 488, 585; 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, 545, 570-577; three units from Geography 353-358, 554-559; three units from Computer Engineering 361, 375, 460, or Computer Science 310, 320.

## 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 321-337.

Methods of Geographical Analysis: Nine units selected from Geography 380-385, 484, 488, 584-588, and three units selected from any other upper division course.

Natural Resource and Environment: Nine units selected from Geography 370, 378, 483, 545, 570-577, and three or four units selected from methods courses Geography 380-385, 484, 488, 584588.

Physical: Nine units selected from Geography 378, 401, 409, 504511, 545, and three or four units selected from methods courses Geography 380-385, 484, 488, 584-588.

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 321-337, 380-385, 484, 488, 584-588.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed 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 381, 484, 488, 584, 585, 588 and 12-15 units selected from Computer Science 107, 108, 220, 310, 320, 503, $514,520,535,551,575$. Courses with relevant content 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)

## LOWER DIVISION COURSES

## 101. Principles of Physical Geography (3) I, II (CAN GEOG 2)

Principles underlying the fundamental nature and dynamics of the physical world: the atmosphere, hydrosphere, biosphere, lithosphere, and their systematic spatial relationships.

## 101L. Physical Geography Laboratory (1) I, II

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Geography 101.
Practical exercise and observation in map analysis, weather elements, climatic regions, and the earth's landform features. Designed to supplement Geography 101.

## 102. Principles of Cultural Geography (3) I, II (CAN GEOG 4)

Introduction to cultural geography, covering the elements of culture, such as technology, language, religion, political organization, methods of livelihood, settlement patterns and population, and the regional distribution of these elements over the earth. Field trips may be arranged.

## 103. Weather and Climate (3) I, II

The composition, structure, and circulation of the atmosphere, including elementary theory of storms and other weather disturbances.
106. World Regional Geography (3) 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.
296. ExperimentalTopics (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)

## 312. Culture Worlds (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Geographical characteristics and development of major cultural realms of the world. Spatial components of contemporary conflict within and between these regions. Not open to students with credit in Geography 106.

## 321. United States (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Geography 101 or 102.

Systematic and regional analysis of physical and cultural landscapes of the United States.

## 323. Middle America (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Geography 101 or 102.

The land and peoples of Mexico, Central America, and the islands of the Caribbean; a survey of the resources, economies, and trade of the region. Field trips may be arranged.

## 324. South America (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Geography 101 or 102.

The physical regions and human geography of South America, including the history of colonization and the exploitation of resources.
336. Europe (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Geography 101 or 102.

Systematic analysis of the geographic bases of modern European life. Regional investigation of countries of Europe except the Soviet Union.

## 337. Republics of the Former Soviet Union (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Geography 101 or 102.

Ethnic composition, industrial and agricultural resources, demographics, and environmental management in this region, with an emphasis on the various cultural regions.
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.

## 354. Geography of Cities (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Geography 101 or 102.

Survey of the location, function and spread of cities; the spatial and functional arrangement of activities in cities, leading to an analysis of current urban problems: sprawl, city decline, metropolitan transportation. Field trips may be arranged.

## 370. Environmental and Natural Resource Conservation (3) I, II

Prerequisites: Geography 101 or 102; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Quality of environmental and natural resources within changing human and natural systems: pollution problems; preservation of open space, habitats, and wilderness; and conservation of natural resources.

## 378. Environmental Physiography (3)

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.
380. Map Investigation (3) I, II

Two lectures and three hours of laboratory.
Prerequisite: Geography 101 or 102.
Use of the map as an analytical tool in geography. History of developments in cartography.
381. Maps and Graphic Methods (3) I, II

Two lectures and three hours of laboratory.
Prerequisite: Geography 101 or 102.
The art and science of creating graphs and maps as media for describing and analyzing geographic phenomena. Laboratory instruction and practice in cartographic techniques with emphasis on presenting quantitative data.

## 385. Spatial Data Analysis (3) I, II

Prerequisites: Geography 101 or 102; 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.

## 401. Physiography (3)

Prerequisite: Geography 101.
Morphology and genetic interpretation of the relief features of the earth's surface.

## 409. Global Climate Change (3)

Prerequisite: Geography 101 or 103.
Global climate system and feedbacks with biosphere. Past climates and potential future changes, including changes in greenhouse gases, ozone depletion and acid rain. Predictions and uncertainty regarding changes including natural and anthropogenic causes.

## 483. Watershed Analysis (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.
484. Geographic Information Systems (3)

Two lectures and three hours of laboratory.
Prerequisite: Three units from Geography 380, 381, 488, or from computer programming.

Procedures for encoding, storage, management, and display of spatial data; theory of computer-assisted map analysis; examination of important geographic information systems.
488. Remote Sensing of Environment (4) I

Three lectures and three hours of laboratory.
Prerequisite: Geography 101. Recommended: Physics 180A180B.

Techniques for acquiring and interpreting remotely sensed data of environment. Electromagnetic radiation processes, aerial photographic systems, and human interpretation of aerial and satellite imagery. Geographic analysis of selected terrestrial, oceanographic, and atmospheric processes and resources.

## 496. Selected Studies in Geography

Prerequisite: Six units in geography.
Critical analysis of problems within a specific field of the discipline. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units. Field trips may be arranged.
498. Senior Thesis (3)

Prerequisite: An overall grade point average of 3.0 and consent of department.

A written thesis based on an individual research project.
499. Special Study (1-3) I, II

Individual study. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

504. Coastal and Submarine Physiography (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.

## 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.

## 507. Geography of Natural Vegetation (3) I, II

Prerequisite: Geography 101.
The natural vegetation associations of the world, their distribution, classification and development, including relationship to human activities. Field trips may be arranged.

## 508. 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.

## 509. Regional Climatology (3)

Prerequisite: Geography 103.
The causes of climatic types as they occur throughout the world. Principles of several climatic classifications.
511. Hydroclimatology (3)

Prerequisites: Geography 101 or 103 and Mathematics 121 or 150.
Hydrologic cycle, energy and mass fluxes from the earth to the atmosphere and land-atmosphere interactions. Agricultural and hydrologic significance of spatial variability of energy and mass fluxes.
545. Arid Lands (3)

Prerequisites: Geography 101 and 370; Biology 100 or 201B.
Physical geography and human use of arid lands. Traditional and modern land use systems in context of technological and economic development. Environmental and social impacts of development including desertification.

## 554. World Cities: Comparative Approaches to Urbanization (3) II

Prerequisite: Geography 354.
Worldwide trends in urbanization. Case studies of selected cities from various culture areas with focus on international variations in city structure and urban problems.

## 556. Location and Spatial Structure of Cities <br> (3)

Prerequisite: Geography 354 or three units of upper division coursework in a related field.

Principles and characteristics of urban growth and settlement; the internal structure and functioning of urban centers; spatial models of urban land use; growth management, transportation problems, and sociopolitical urban problems. Field trips may be arranged.
559. Urban Transportation Geography (3)

Prerequisite: Three units of upper division urban or transportation coursework in geography or related field.

Urban transportation networks and their effects, past, present and future, on the economy and physical structure of the urban region. Field trips may be arranged.
570. Environmental Resource Conservation
(3)

Prerequisite: Geography 370.
Management of environmental and natural resources. Effective programs and the institutional frameworks in which they occur.

## 572. Land Use Analysis (3) II

Prerequisite: Geography 370.
Problems of maintaining environmental quality in the process of land conversion from rural to urban uses with emphasis on land capability and suitability studies. Field trips may be arranged.

## 573. Population and the Environment (3)

Prerequisite: Geography 102.
Population distribution, growth, and characteristics as they relate to environmental degradation, both as causes and consequences. Roles of women, sustainable development, carrying capacity, optimum population, and policy initiatives in relationships between population and environment.

## 574. Water Resources (3)

Prerequisite: Geography 370.
Occurrence and utilization of water resources and the problems of water resource development. Field trips may be arranged.

## 575. Geography of Recreational Land Use (3) I <br> Prerequisite: Geography 101 or 102.

Importance of location and environment in the use, management, and quality of recreation areas. Field trips may be arranged.

## 577. Geography of the National Parks

Prerequisite: Geography 370.
Human and land relationships in the national parks of the United States. Emphasis on problems arising from the preservation and use mandate under which parks are managed.
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.
585. Quantitative Methods in Geographic Research

Prerequisite: Geography 385.
Application of statistical techniques to geographic research including simple regression and correlation, multiple regression, classification, factor analysis, and computer applications.
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.
588. Intermediate Remote Sensing of Environment (4) II

Three lectures and three hours of laboratory.
Prerequisites: Geography 385 and 488.
Multispectral remote sensor systems and interpretation of imagery from nonphotographic systems. Computer-assisted image processing. Geographic analysis of selected terrestrial, oceanographic, and atmospheric processes.

## 595. Geographic Internship (3) I, II

Prerequisites: Six upper division units in geography and consent of instructor.

Students will be assigned to various government agencies and industry and will work under the joint supervision of agency heads and the course instructor. Maximum credit three units.
596. Advanced Topics in Geography (1-3)

Prerequisite: Six upper division units in geography.
Advanced special topics in geography. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30 -unit master's degree.

GRADUATE COURSES
Refer to Bulletin of the Graduate Division.

# Geological Sciences 

## In the College of Sciences

OFFICE: Geology/Mathematics/Computer Science 237 TELEPHONE: (619) 594-5586 FAX: (619) 594-4372
EMAIL: department.office@geology.sdsu.edu WEB SITE: www.geology.sdsu.edu

## Faculty

Emeritus: Berry, Bertine, Gastil, Kern, Krummenacher, Marshall,
McEuen, Miller, Ptacek, Roberts, Threet, Walawender, Wallace Chair: Girty
The Rollin and Caroline Eckis Chair in Seismology: Day
Professors: Abbott, Day, Dorman, Girty, Huntley, Jiracek, Kimbrough, Peterson, Rockwell Associate Professors: Frost, Thorbjarnarson Assistant Professors: Leighton, Pietruszka, Riggs, Schellenberg

## 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 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.

## 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.

## General Geology Program

Preparation for the Major. Geological Sciences 105, 200, 221, and 224; Biology 100, 100L, or 101, 101L; Chemistry 200, 201; Mathematics 150; Physics 180A-180B and 182A-182B; Statistics 250. (45 units)

Recommended: Geological Sciences 100, 101; Mathematics 151 and 252 and the Physics 195 series are highly recommended for those students interested in the more quantitative aspects of geology.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 37 upper division units in approved courses to include Geological Sciences 300, 306, 307, 498A, 498B, 508, 536, 537, and either 525 or 530 and 530L; at least two of the following: Geological Sciences 501, 502, 505, 514, 520, 521, 540, 550, 551; plus three upper division units of departmentally approved courses.

## Emphasis in Engineering Geology

Preparation for the Major. Geological Sciences 105, 200, 221, 224; Biology 100; Chemistry 200, 201; Engineering Mechanics 200; Mathematics 150, 151, 252; Physics 195, 196, 197; Statistics 250. (56 units)

Recommended: Civil Engineering 218; Physics 195L, 196L, 197L.
Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 37 upper division units in approved courses to include Geological Sciences 300, 306, 307, 498B, 508, 536, 550, 551; Civil Engineering 301, 462, 463; one of the following: Geological Sciences 505, 514, 530 and 530L, 560, or Civil Engineering 465.

Because of the preparation in mathematics, physics, and geology called for in this emphasis, the College of Engineering will not require majors in this emphasis to take the prerequisites specified for Civil Engineering 301, 462, and 463.

## Emphasis in Geochemistry

Preparation for the Major. Geological Sciences 200, 221, 224; Biology 100 or 101; Chemistry 200, 201, 231, 251; Mathematics 150, 151; Physics 195, 196, 197; Statistics 250. (54 units)

Recommended: Geological Sciences 105, 307; Chemistry 431; Physics 195L, 196L, 197L; Mathematics 252.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 36 upper division units in approved courses to include Geological Sciences 300, 306, 498B, 501, 530, 530L, 536, 551, 552; Chemistry 410A-410B, 571.

## Emphasis in Geophysics

Preparation for the Major. Geological Sciences 200, 221, 224; 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. (48-51 units)

Recommended: Geological Sciences 105, Physics 197L, Statistics 250 .

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 39 upper division units in approved courses to include Geological Sciences 300, 306, 307, 498B, 532, 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. Geological Sciences 105, 200, 221, 224; Biology 100; Chemistry 200, 201; Mathematics 150, 151; Physics 195, 196, 197; Mathematics 252 or Chemistry 231; Statistics 250. (53 units) ${ }^{4}$

Recommended: Physics 195L, 196L, 197L.
Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units in approved courses to include Geological Sciences 300, 306, 498B, 514, 530, 530L, 532, 536, 551, 552; Mathematics 342A-342B, or Chemistry 571; plus three to six upper division units of departmentally approved courses.

## Emphasis in Marine Geology

Preparation for the Major. Geological Sciences 105, 200, 221, 224; Biology 100 or 101; Chemistry 200, 201; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, 197L. (53 units)

Recommended: Geological Sciences 537. A foreign language.
Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units in approved courses to include Geological Sciences 300, 306, 307, 498B, 530, 530L, 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. Geological Sciences 105, 200, 221, 224; 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. (49-50 units)

Recommended: Geological Sciences 307.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 35 upper division units in approved courses to include Geological Sciences 300, 306, 498A, 498B, 501, 508, 536, 537; Biology 515, 517; plus three 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)

One of the requirements for acceptance into the College of Education's post-baccalaureate credential program is to either pass the appropriate PRAXIS and SSAT 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 with the Cross-Cultural, Language, and Academic Development (CLAD) emphasis 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, 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):

1. 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.
4. Mathematics/Quantitative Reasoning (3 units) to be satisfied by Mathematics 150 .
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.


#### Abstract

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.

\section*{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 105, 200, 221, 224; Mathematics 150; Physics 180A, 180B, 182A, 182B OR Physics 195, 195L, 196, 196L, 197, 197L; Statistics 250. (61-66 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 36 units to include Geological Sciences 300, 303 (allowed only in this version of the major in Geological Sciences), 306, 498A, 498B, 501, 536, 537; Biology 319; Oceanography 541; and six units selected from Geological Sciences 305, 307, 505, 508, $514,520,521,530,540,545$; plus one departmentally approved upper division unit.

## 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, 105; and twelve units selected from Geological Sciences 301, 302, 303, 304, 305, 306, 307, 502, 505, 514, 536, 537. In addition, Geological Sciences 200, 221, and 224 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)

## LOWER DIVISION COURSES

## 100. Planet Earth (3) I, II

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.

## 101. Dynamics of the Earth Laboratory (1) 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.

## 104. Earth Science (3) I, II

Overview of the earth and its history, the solid earth and its processes, the earth's oceans and atmosphere, and the earth's place in the solar system and the universe. Most appropriate for liberal studies majors.

## 105. Historical Geology (4) I, II

Three lectures and three hours of laboratory. Arrangement for field study during the semester.

Prerequisites: Geological Sciences 100 and 101.
Theories of earth origin, and the evolutionary history of the earth as traced through rock and fossil records. Consideration of the paleontologic sequence.

## 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.

## 221. Mineralogy (4) I

Three lectures and three 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.

## 224. Petrology (4) II

Two lectures and six hours of laboratory.
Prerequisite: Geological Sciences 221.
The origin, occurrence, identification, and classification of rocks in hand specimen. Use of optical techniques in mineral identification.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES (Intended for Undergraduates)

300. Computer Applications 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.

## 301. Geology of National Parks and Monuments (3) I, II

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.

## 302. Fossils: Life Through Time (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Traditional and recently discovered aspects of history of life on earth. Topics from the origin of life to extinctions. Not acceptable for a major in geological sciences.

## 303. Natural Disasters (3) I, II

Prerequisite: Geological Sciences 100 or completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Geologic processes that have dramatically affected the human race: earthquakes, volcanoes, landslides, and floods. Not acceptable for a major in geological sciences.

## 304. Planetary Geology (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning. Recommended: Geological Sciences 100.

Structure, evolution, and surface features of planets from a geological point of view. Insights gained into origin and evolution of planetary bodies provide greater understanding of how planet earth operates and why it is unique. Not acceptable for a major in geological sciences.

## 305. Water and the Environment (3)

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. (Formerly numbered Geological Sciences 351.)
306. Structural Geology and Field Methods (5) I

Two lectures and three hours of laboratory and six weekends in the field.

Prerequisites: Geological Sciences 224, 300; 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.

## 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.

## 308. How Volcanoes Work (3)

Prerequisites: Geological Sciences 100 or completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Science behind volcanoes and volcanic processes, effect of volcanic eruptions on global climate conditions, ecological habitat, and social change. Classic eruptions in geologic and historic past examined with paradigms for future events. Not acceptable for a major in geological sciences.
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.

498A. Senior Seminar (1) Cr/NC I,II
Prerequisite: Senior standing in geological sciences.
Preparation of written and oral scientific reports and attendance at departmental seminars.

## 498B. Senior Thesis (2) I, II

Prerequisite: Consent of instructor.
Individual research project, written thesis, and oral presentation done under supervision of professor chosen by student.

## 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 <br> (Also Acceptable for Advanced Degrees)

501. Geochronology (3)

Two lectures and three hours of laboratory.
Prerequisite: Geological Sciences 224.
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.

## 502. Geology of North America (3) I

Prerequisite: Geological Sciences 105.
A regional analysis of North American geology, its structural, stratigraphic, and tectonic patterns, and hypotheses concerning their origin and evolution.

## 505. Photogeology and Remote Sensing (3) II

Two lectures and three hours of laboratory.
Prerequisite: Geological Sciences 514.
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.

## 508. Advanced Field Geology (4 or 6) S

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.

## 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.

## 520. Ore Deposits (3) I

Prerequisite: Geological Sciences 306.
Geologic relations, origin, distribution, and economics of metallic and nonmetallic mineral deposits.

## 521. Petroleum Geology (3) II

Prerequisite: Geological Sciences 306.
History of petroleum exploration; statistics of energy use; principles of well logging; theories of petroleum generation, migration, and accumulation; exploration and production techniques; case studies of important oil fields.

## 525. Petrography (3) I

Two lectures and three hours of laboratory.
Prerequisite: Geological Sciences 224.
A study of rocks with the polarizing microscope; identification of mineral constituents; interpretation of textures; classification of rocks; problems of genesis.

## 530. Geochemistry <br> (2) I

Prerequisites: Geological Sciences 224; Chemistry 201; Mathematics 121 and 122, or 150.

Relationship of basic chemical principles and isotopic methods to geologic phenomena and environments. Applications to geologic exploration problems, contaminant transport, chemical weathering, and evolution of atmosphere and ocean chemistry.
530L. Geochemistry Laboratory (1) I
Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Geological Sciences 530.

Laboratory methods for determination of chemical concentrations in waters, sediments, and rocks, as well as x-ray diffraction methods for mineralogy.

## 532. Environmental Geophysics (3) I

Two lectures and three hours of laboratory.
Prerequisites: Mathematics 150 and Statistics 250; two semesters of physics. Recommended: Geological Sciences 307 and 551.

Applications of geophysical methods to hydrologic investigations, including d.c. resistivity, electromagnetics, radar, seismology, and magnetics.

## 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.
536. Sedimentology and Lithostratigraphy (3) I

Two lectures and three hours of laboratory.
Prerequisites: Geological Sciences 105 (not required but recommended for Emphases in Geochemistry and Geophysics) and 224.

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.

## 537. Geobiology (3) II

Two lectures and three hours of laboratory.
Prerequisites: Geological Sciences 105 and either Biology 100100L or 101-101L, 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.
540. Marine Geology (3)

Prerequisites: Geological Sciences 105, and either Geological Sciences 224, 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.
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.

## 550. Engineering Geology (3)

Two lectures and three hours of laboratory.
Prerequisite: Geological Sciences 306.
Relationships between geologic processes and works of humans. Topics include rock and soil mechanics, ground water flow, slope stability, seismicity, land subsidence, and evaluation of geologic materials with respect to dam sites, tunnel alignments, and building foundations.

## 551. Hydrogeology (3) I

Two lectures and three hours of laboratory.
Prerequisites: Geological Sciences 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.

## 552. Field and Laboratory Techniques in Hydrogeology (4) II

One lecture and nine hours of laboratory.
Prerequisites: Geological Sciences 551 and credit or concurrent registration in Geological Sciences 530.

Use and application of common field and laboratory techniques in hydrogeology. Exercises include drilling, coring, and sediment sampling, aquifer testing, unsaturated zone monitoring, fluid level measurement, tracer testing, laboratory measurement of permeability, capillarity, and analysis of inorganic and organic constituents in groundwater.

## 560. Earthquake Seismology <br> (3)

Two lectures and three hours of laboratory.
Prerequisites: Mathematics 252, Physics 197. Recommended: Mathematics 342A.

Theory of seismic wave excitation, propagation, and recording. Methods of seismogram interpretation and analysis. Applications to tectonics and earthquake hazard analysis.

## 596. Advanced Topics in Geology (1-4)

Prerequisite: Consent of instructor.
Advanced special topics in the geological sciences. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to Bulletin of the Graduate Division.

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## Faculty

Emeritus: Boney, Dunkle, Lawson, Paulin, Wulbern
Interim Chair: Benkov
Professor: Skwara
Associate Professor: Wauchope
Assistant Professor: Lovrien-Meuwese
Lecturer: Brayton

## 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.

# German 

## In the Department of European Studies In the College of Arts and Letters

## German Major

## With the B.A. Degree in Liberal Arts and Sciences (Major Code: 11031)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in German courses can apply to the degree.

Students majoring in German must complete a minor in another field to be approved by the departmental adviser in German.

Preparation for the Major. German 100A, 100B, 200, 205A, 205B. (21 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major.

Major. A minimum of 24 upper division units to include German 300, 301, 310, 420, and 12 units in upper division German which may include Comparative Literature 571 (with approval of department).

## Emphasis in German Studies

No minor is required with this emphasis.
Preparation for the Major. German 100A, 100B, 200, 205A and 205B. (21 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major.

Major. A minimum of 30 upper division units to include German 300, 301, 420; 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, 517, 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 in German, nine of which must be in upper division courses.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

## Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of German to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete German 205A or 205B or the equivalent level of achievement. The usual sequence of
coursework is German 100A, 100B, 200, and 205A, 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 foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first two years of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit
2. The first three years of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course
3. Four years of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the foreign language requirement.

## Courses (GERmN)

## LOWER DIVISION COURSES

Native speakers of German will not receive credit for taking lower division courses in German except with advance approval from the department.

## All lower division courses in German are taught in German.

No credit will be given for 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 200 may be taken concurrently with German 205A or 205B.

## 100A. First Course in German (5) I, II)

Pronunciation, oral practice, readings on German culture and civilization, minimum essentials of grammar. Not open to students who have completed three years of high school German unless the third course was completed five or more years ago

100B. Second Course in German (5) I, II
Prerequisite: German 100A or two years of high school German.
Continuation of German 100A. Not open to students who have completed four years of high school German unless the fourth course was completed five or more years ago.
200. German for Oral Proficiency (3)

Three lectures and one hour of laboratory.
Prerequisite: German 100B or three years of high school German.
Practice in spoken language; use of modern German through study of cultural materials for proficiency in oral communication.

## 205A. Third Course in German (4)

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. Not open to students with credit in German 201 and 202

## 205B. Fourth Course in German (4)

Four lectures and one hour of laboratory.
Prerequisite: German 205A.
Continuation of German 205A. Practice of all language skills at intermediate level. Not open to students with credit in German 210.

## 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.

## 300. Readings in Contemporary German Culture (3)

Prerequisites: German 200, 205B. Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors

Development of advanced proficiency in reading comprehension and oral communication through use of cultural materials.
301. Grammar and Composition (3)

Prerequisites: German 200, 205B; and completion of the General Education requirement in Foundations II.C., Humanities required for non-majors. Proof of completion of prerequisites required: Copy of transcript.

Grammar and stylistics; intensive writing practice; reports based on outside reading.
303. Business German (3)

Three lectures and one hour of laboratory.
Prerequisites: German 301 and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

German language and culture within context of German business and economics. Extensive readings and listening comprehension exercises. Practice in both speaking and writing German.

## 304. Phonetics of Spoken German (3)

Three lectures and one hour of laboratory.
Prerequisites: German 200 and 205B
Sounds and intonation of German.
310. Introduction to German Literature (3)

Prerequisites: German 205B and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Introduction to literary study in German, with selected readings representative of different periods and genres
320. German Film (3)

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.
420. Modern German Civilization (3)

Prerequisites: German 200 and 205B.
Culture of German-speaking countries in the nineteenth and twentieth centuries

## 496. Experimental Topics (1-4)

Prerequisites: German 310 (for literary topics) or 301 (for linguistics topics).

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree
499. Special Study (1-3) I, II

Prerequisites: Fifteen upper division units in the major with an average of $B(3.0)$ or better and consent of instructor. Proof of completion of prerequisites required: Copy of transcript.

Individual study. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

## 501. Translation (3)

Prerequisite: German 301.
Translation of a variety of texts from German to English and English to German.
505. Applied German Linguistics (3)

Prerequisite: German 301.
Linguistic study of modern German; integration of modern linguistic theory with the language classroom.
520. Modern German Literature (3)

Prerequisite: German 310.
Major authors and genres since Enlightenment.

## 530. Topics in German Literature

Prerequisite: German 310.
Study of a movement, theme or genre of German literature, such as Romanticism, literature and film, literature of the Holocaust, women's literature, literature of the German Democratic Republic in retrospect. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units.

## 596. Topics in German Studies (3)

Prerequisite: German 310 (for literary topics) or 505 (for linguistics topics). Proof of completion of prerequisite required: Copy of transcript.

Topics in German language, literature, or linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30 -unit master's degree.

GRADUATE COURSES
Refer to Bulletin of the Graduate Division.

# Gerontology 

In the College of Health and Human Services

OFFICE: Hepner Hall 203<br>TELEPHONE: (619) 594-6765<br>FAX: (619) 594-2811

## Faculty

Gerontology is a multidisciplinary program administered through the University Center on Aging. Faculty assigned to teach courses in gerontology are drawn from the Departments of Anthropology, Psychology, Recreation, Parks and Tourism, and Sociology; the School of Social Work; and the Colleges of Arts and Letters, Education, Health and Human Services, and Professional Studies and Fine Arts.
Emeritus: Stanford
Director:
Assistant Professors: DuBois, Usita

## Offered by Gerontology

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.

## Gerontology Major

## With the B.A Degree in Liberal Arts and Sciences <br> (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; Community Health Education101; Psychology 101; and Social Work 110. (21 units)

Foreign 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."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include Gerontology $350,360,370,400$ A, 400B, 402, 520, 522; Psychology 350; Sociology 350 or 527 ; and six units selected with approval of the adviser from Anthropology 509; Child and Family Development 335; Speech, Language, and Hearing Sciences 580; Gerontology 496, 499, and 596 (when appropriate); Exercise and Nutritional Sciences 433; Psychology 456; Recreation 580; Social Work 420*; Sociology 528; Women's Studies 310, 521.

* Prerequisites waived.


## Gerontology Minor

The minor in gerontology consists of a minimum of 18 units to include Psychology 350, Sociology 350 or 527; and 12 units selected from Gerontology 101, 350, 360, 370, 400A, 400B, 402, 499, 522, 596; Anthropology 509; Child and Family Development 496*; Exercise and Nutritional Sciences 433; Recreation 580; Social Work 120, 420; Sociology 496*; Speech, Language, and Hearing Sciences 580; 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 center is responsible for the coordination of the certificate program in conjunction with the College of Extended Studies. Admission applications may be obtained from the 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 University Center on Aging

## 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)

## LOWER DIVISION COURSES

## 101. Introduction to Human Aging (3) I, II

Overview of the field of gerontology, including demographic trends, basic theories, concepts and philosophic ideas, social policies, planning issues, and services available to meet the needs and problems of the aged.

## 250. Intergenerational Issues and the Elderly <br> (3)

Controversial issues surrounding interpersonal relations between the aged and other age groups.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

## 350. Social Policy and Aging <br> (3) II

Prerequisite: Gerontology 101
Philosophical and practical gerontological knowledge for the operation of health and human service organizations. Multiprofessional perspective of policies, services, and administrative techniques.

## 360. Minority and Ethnic Aging (3) I

Prerequisite: Gerontology 101 or completion of the General Education requirement in Foundations IIB, Social and Behavioral Sciences required for non-majors.

Attitudes and cultural values related to aging members of ethnic minorities. Major social and psychological theories on aging as they relate to ethnic minority elderly. Impact of class, economic resources, and health on the aging process.

## 370. Images of Aging in Contemporary Society <br> (3) II

Prerequisite: Gerontology 101.
Images of older persons in our society. Influence of films, newspapers, radio, television, books and magazines, and a wide range of advertising mechanisms.
400A-400B. Practicum in Gerontology (3-3) Cr/NC I, II
Twelve hours of laboratory.
Prerequisites: Gerontology 350, 360, 370.

Integration of theoretical background and practical experience in providing services to elderly. Fieldwork and observation in settings providing services to the elderly. Direct experience in aging projects relevant to their field of interest.

## 402. The Aging Network (3) I, II

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.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of department chair.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)

## 520. Analysis of Programs for the Aging (3)

Prerequisite: One upper division course in gerontology.
Major programs in aging that support daily functioning of elderly. Effectiveness of programs in serving today's elderly with attention to ethnic and cross-cultural variations.

## 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.

## 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.

## 540. Physical Function and Disease Prevention (3)

Prerequisites: One course in gerontology; Community Health Education 101 or 406; 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.
596. Advanced Special Topics in Gerontology (1-4) I, II

Advanced selected topics in gerontology. May be repeated with new content. See Class Schedule for specific content. 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 "Community Heath Education" in this section of the catalog.

## Health and Human Services

OFFICE: Hepner Hall 124
TELEPHONE: (619) 594-6516
FAX: (619) 594-7103

## Course (HHS)

LOWER DIVISION COURSE (Intended for Undergraduates)
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'Life isn't a matter of milestones, but of moments."

- Rose Kennedy


# Hebrew 

In the Department of Linguistics and Oriental Languages
OFFICE: Business Administration 327 In the College of Arts and Letters

## Faculty

Chair: Kaplan
Professor: Bar-Lev

## Offered by the Department of Linguistics and Oriental Languages

Courses in Hebrew.
Major or minor work in Hebrew is not offered

## Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Hebrew to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Hebrew 201 or the equivalent level of achievement. The usual sequence of coursework is Hebrew 101 (with 100), 102, 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 foreign language requirement in various majors. These high school courses will not count as college credit toward graduation

Secondary school language courses can be used as follows:

1. The first two years of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.
2. The first three years of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.
3. Four years of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the foreign language requirement.

## Courses (hebrw)

## LOWER DIVISION COURSES

All lower division courses in Hebrew are taught in Hebrew.
No credit will be given for Hebrew 101, 102, 201 taken out of sequence.

## 100. Hebrew Alphabet (1)

Study of Hebrew alphabet; practice with reading and comprehending whole texts (without vowels), as well as pronouncing. Intended for students of Hebrew 101 who have not previously studied the alphabet. May also be taken without Hebrew 101. Does not satisfy foreign language requirement.

## 101. Elementary Hebrew I (3)

Three lectures and one hour of laboratory.
Beginning reading, writing, and conversational skills. Essentials of grammar. Not open to students who have completed three years of high school Hebrew unless the third course was completed five or more years ago.

## 102. Elementary Hebrew II (3)

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.

## 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 foreign language requirement.
201. Intermediate Hebrew (4)

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.

## 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.

## 330. Hebrew Discourse and Literature (3)

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.

## 470. Kabbalah as a Symbolic System (1-2)

Prerequisite: Upper division standing.
Main 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.

## 496. Topics in Hebraic Studies (1-4)

Topics in Hebraic language, literature, culture, and linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit eight units.
499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

OFFICE: Adams Humanities 4210
TELEPHONE: (619) 594-5262 / FAX: (619) 594-2210
WEB SITE: www-rohan.sdsu.edu/dept/histweb/dept.html

## Faculty

Emeritus: Bartholomew, Jr., Chu, Cox, Cunniff, Davies, DuFault, Filner, Flemion, Hamilton, Hanchett, Heinrichs, Heyman, Kushner, Munter, Norman, Oades, O'Brien, Peterson, Pincetl, Polich, Rader, Schatz, Smith, C., Smith, R., Starr, Steele, Stites, Stoddart, Strong, Vanderwood, Vartanian, Webb
Chair: McDean
The Dwight E. Stanford Chair in American Foreign Relations: Cobbs Hoffman
The Nasatir Professor of Modern Jewish History: Baron
Professors: Baron, Cheek, Christian, Cobbs Hoffman, Dunn, Ferraro, Hoidal, Kornfeld, McDean
Associate Professors: Colston, Colwill, Elkind, Kuefler, Rivera-Garza, Wiese
Assistant Professors: DeVos, Edgerton, Pollard, Putman, Schmidt, Yeh
Lecturers: Beasley, Crawford, Grimshaw-White, Guthrie, Hay, Lide, Mahdavi-Izadi, McKanna, Putko, Roy, 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 Nasatir Professor of Modern Jewish History

The Nasatir Professorship was established in honor of the late Professor Abraham Nasatir, a specialist in European colonial history in North America. Nasatir taught history at SDSU for 46 years and was active in the community as an advocate of Jewish education. The Professorship is now held by a distinguished scholar of European intellectual history and Holocaust studies, Lawrence Baron, director of SDSU's Lipinsky Institute for Judaic Studies.

## The Dwight E. Stanford Chair in American Foreign Relations

A gift from alumnus Dwight E. Stanford, who earned a bachelor's degree in American history in 1936 from San Diego State College (now SDSU), established The Dwight E. Stanford Chair in American Foreign Relations. The 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 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 the 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.

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. Students must enter the University under the history premajor code (22050). 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 and SDSU GPA of 2.40 or higher;
d. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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.

## History Major

With the B.A. Degree in Liberal Arts and Sciences (Premajor Code: 22050) (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)

Foreign Language Requirement. As part of preparation for the major, students will be required to successfully complete the third college semester or fifth college quarter in one foreign language. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. History 400W with a grade of C (2.0) or better.

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 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. 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)

## LOWER DIVISION COURSES

## 100. World History (3)

Growth of civilizations and interrelationships of peoples of Europe, Asia, Africa, and the Americas to 1500.

## 101. World History (3)

Modern history from a global perspective, 1500 to present.
105. Western Civilization to the Seventeenth Century (3) (CAN HIST 2) $(105+106:$ CAN HIST SEQ A)
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.

## 106. Western Civilization Since the Sixteenth Century (CAN HIST 4) (105 + 106: CAN HIST SEQ A)

Development of European cultures, thought, and institutions from sixteenth century to present. Not open to students with credit in History 305B.

## 109. American History to Reconstruction (3)

 (CAN HIST 8) (109 + 110: CAN HIST SEQ B)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. (Formerly numbered History 110A.)

## 110. American History Since the Civil War (3) <br> (CAN HIST 10) (109 + 110: CAN HIST SEQ B)

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 identifies and institutions. Satisfies the American Institutions requirement in American history and California government. (Formerly numbered History 110B.)

## 115. Comparative History of the Americas (3)

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. (Formerly numbered History 115A.)

## 116. Comparative History of the Americas (3)

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. (Formerly numbered History 115B.)

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 299. Special Study (3)

Prerequisite: Consent of department chair and instructor. Individual study.

## UPPER DIVISION COURSES (Intended for Undergraduates)

308. 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. Cannot satisfy requirements for the major or minor; offered only in London Semester program.

## 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 University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Communication 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.

## 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 University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Communication 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. (Formerly numbered History 430W.)

## 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. Consent of instructor required for non-history majors.

Analysis and practice of ways historians preserve, research, and interpret 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. (Formerly numbered History 494.)

## 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.

## 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.
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) 

## 402. History of Childhood <br> (3)

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.

## 406. History of Sexuality (3)

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.

## 422. Southeast Asian and Filipino Experience in America (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Prerequisite recommended: Upper division standing.

History of Filipinos and other Southeast Asians in America from 1898 to present. Topics include changing Southeast Asian-U.S. relations, cultural roots, immigration, comparative community institution and development, racism, discrimination, labor movements, politics, achievements, and contemporary issues.

## 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.
436. Modern Jewish History in Feature Films (3) 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.

## 440. The Holocaust and Western Civilization (3) I

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities.

German campaign to eliminate Jews during World War II. AntiSemitic background, both Christian and racial; rise of Adolf Hitler and implementation of "the final solution"; responses by Jews and nonJews in the Western world.

## 441. Environmental Problems in Historical Perspective (3)

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities.

A comparative study of the role of religious beliefs, social values, economic practices, and political systems in shaping past attitudes, policies, and behavior toward the environment. International in scope.

## 442A-442B. People Out of Our Past (3-3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

A biographical approach to American history. Semester I: Through 1865; John Winthrop, Benjamin Franklin, Thomas Jefferson, P.T. Barnum, Lucy Stone, Frederick Douglass, John Brown, Abraham Lincoln. Semester II: 1865 to present; Mark Twain, Jane Addams, Emma Goldman, Woodrow Wilson, Henry Ford, Eleanor Roosevelt, Martin Luther King, Jr., Bob Dylan, Richard Nixon.
480. History of Corporations in the Modern World (3) I, II

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities.

Comparative study of the rise and success of the modern corporation in the United States, Japan, Europe, and developing nations.

## 486. World War II (3)

Causes of World War II, its course, and its legacy for today's world.
488. Modern Jewish History (3) II

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities.

Social, religious, and intellectual life of European Jewry from Middle Ages to present; political struggle for emancipation; anti-Semitism, the Holocaust, and establishment of state of Israel.

## 495. Internship in Applied History <br> (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.

## 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
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)
527. The Holocaust in Feature Films (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.

## 553. History of Genders in Latin America (3)

Prerequisite: History 115 or 116 or 415 or 416.
History of gender constructions throughout Latin America from pre-Columbian times to present, emphasizing definition of masculinity, femininity, and sexual orientations in the region through use of primary and secondary sources.

## 555. Modernization and Urbanization in Latin America (3)

Historical treatment of the phenomena of urbanization and modernization in Latin America with attention to pre-Colombian and lberian traditions and influence of education, church, military, and foreign investment.
556. Guerrilla Movements in Latin America (3)

History of sociopolitical conditions which culminated in guerrilla movements in twentieth century Latin America. Use of guerrilla writings and accounts as well as recent Latin American films and U.S. Defense Department counterinsurgency training films.

## 560. Growing Up Latin American (3)

Prerequisite: History 115 or 116 or 415 or 416.
Historical analysis of life stories of men and women from majority and minority groups in Latin America.

## 565. Revolution and Social Change in Asia (3)

Comparative study of contemporary problems in Asia emphasizing how indigenous peoples responded to the challenges of nationalism, reform, revolution, modernization, and neo-colonialism. Topics include social structure, education, peasant movements, urbanization, search for cultural identity, and national integration.

## 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)

## 407. Early Modern Europe (3)

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. (Formerly numbered History 407A.)

## 409. United States History for Teachers (3)

Prerequisites: Upper division standing and satisfactory completion of Writing Competency requirement. Limited to liberal studies majors.

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. (Formerly numbered History 410A.)

## 411. World History for Teachers (3)

Prerequisites: Upper division standing, satisfactory completion of Writing Competency requirement, 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

## 413. United States History for Teachers for Liberal Studies

 Majors (3)Prerequisites: Upper division standing and satisfactory completion of Writing Competency requirement. 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.

## 415. Pre-Contact and Colonial Latin America (3)

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. (Formerly numbered History 415A.)
420. Asia's Dynamic Traditions (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors

Emergence and continuing vitality of historic traditions in India, China, and Japan. Topical, comparative survey emphasizing Confucian, Buddhist, and Hindu ideas and the interaction with institutions of family and village.

## 444. California History Through Early Statehood (3)

California from pre-colonial societies through early statehood. Emphasis on contact of cultures, social, cultural, political, economic and intellectual development, political institutions, Spanish and Mexican periods, gold rush, U.S. Mexico war and early statehood. (Formerly numbered History 541A.)
473. Middle Eastern History from the Advent of Islam to 1500

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors

Middle Eastern history, 600 A.D. to 1500 C.E.; spread of Islam through rise of Ottoman Empire. (Formerly numbered History 473A.)

## 475. History of Africa to the Nineteenth Century (3)

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. (Formerly numbered History 475A.)

## 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
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)
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.

## 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. (Formerly numbered History 500A.)

## 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. (Formerly numbered History 500B.)
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. (Formerly numbered History 503A.)

## 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. (Formerly numbered History 503B.)
506. The Renaissance (3)

Intellectual, artistic, social, and economic transformation in Europe from fourteenth to seventeenth centuries

## 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.

## 513A. Early Scandinavia (3)

The formation and development of the Scandinavian kingdoms from the Viking Age to the end of the Napoleonic Wars.

## 522. Tudor and Stuart England (3)

Struggle between monarchy, aristocracy, and gentry from Henry VII to Civil War. Reformation and Renaissance, cultural and colonial growth, the Glorious Revolution, parliamentary control, and political stability. (Formerly numbered History 522A-522B.)

## 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.

## 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.

## 532. Topics in Early American History <br> (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.

## 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. (Formerly numbered History 551A.)

## 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. (Formerly numbered History 564A.)
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.

## 569. Japan from Classical Age to Early Modern Era (3)

Historical examination of Japanese civilization as a social construction from creation myths to early modern era. Religion, philosophy, aesthetics, art, literature, and social relations. Customs, practices, myths, and historical precedents that created a shared sense of Japanese culture.

## Field (c). The Modern World <br> UPPER DIVISION COURSES (Intended for Undergraduates)

408. Modern Europe (3)

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. (Formerly numbered History 407B.)
410. United States History for Teachers (3)

Prerequisites: Upper division standing and satisfactory completion of Writing Competency requirement.

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. (Formerly numbered History 410B.)

## 412. Modern World History for Teachers (3)

Prerequisites: Upper division standing, satisfactory completion of Writing Competency requirement, 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.
416. Modern Latin America (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

History of Latin America, early national period to present. (Formerly numbered History 415B.)

## 421. Asia's Emerging Nations (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Historic changes which have contributed to the rise of modern Japan, India, and China. Topical, comparative approach emphasizing ways Asian societies have responded to challenges of imperialism, nationalism, revolution, war, and modernization.

## 445. California History Since Statehood (3)

California since early statehood. Emphasis on California as a multicultural society, economic development, urbanization, environmental issues, immigration, politics and political institutions, place of California in U.S. popular culture. History 445 satisfies the graduation requirement in California State and Local Government. (Formerly numbered History 541B.)

## 474. The Middle East Since 1500 (3)

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. (Formerly numbered History 473B.)

## 476. History of Africa Since the Nineteenth Century (3)

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. (Formerly numbered History 475B.)

## 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
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)
512A. The Great War: A Turning Point in European History (3)
Forces and events that shaped Europe in period prior to and during World War I, 1890-1919.
512B. The Age of Dictators and Contemporary Europe (3)
Europe in the age of dictatorship, world war, decline, and recovery.

## 513B. Modern Scandinavia (3)

Major political, social and economic developments in Scandinavia from 1814 to the present, with emphasis on contemporary society.

## 514. The French Revolution and Napoleonic Era (3) I

Prerequisites: History 105 and 106.
France on the eve of the Revolution; the Great Revolution, 17891799, the Napoleonic Era.

## 517. Modern Germany (3)

Political, social, and economic history of Germany from 1848 to present. (Formerly numbered History 517A-517B.)

## 518A-518B. Russia and the Soviet Union (3-3)

Semester I: Political, social and economic development of Russia in Europe and Asia from the earliest times to the close of the nineteenth century. Semester II: Emphasis on the twentieth century.

## 533A. The Jacksonian Era (3)

Territorial expansion, democratic politics, revivalism, and the slavery controversy.

## 533B. Civil War and Reconstruction (3)

The Civil War and Reconstruction, emphasizing political affairs and the role of Lincoln.

## 535. The Age of Roosevelt

(3)

The United States in Depression, War, and Cold War. (Formerly numbered History 535B.)
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.

## 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.
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.

## 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.
544A. Early American Foreign Relations (3)
Development of American foreign relations from Colonial Period to the Spanish-American-Filipino War.
544B. Modern American Foreign Relations (3)
Development of American foreign relations since 1900.

545A-545B. Constitutional History of the United States (3-3)
Development of American constitutional ideals and institutions. History 545A: Seventeenth century to 1861. History 545B: Since 1861.

## 551. Modern Mexico <br> (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. (Formerly numbered History 551B.)

## 552. Brazil (3)

Survey of history of Brazil from Portuguese backgrounds to present. Brazil as a tropical society. Recommended for students minoring in Portuguese.

## 554. The Andean Republics of South America (3)

The historical development of Chile, Bolivia, Peru and Ecuador with emphasis on race relations and social revolutions in the twentieth century.

## 558. Latin America in World Affairs (3)

History of Latin America's political and economic relations with Europe, the Soviet Union, the United States, and the Third World.
559. Central America (3)

Prerequisites: Upper division standing and six units in history.
Historical development of the republics of Central America with emphasis on twentieth century. Contemporary revolutionary movements and role of United States in Central American affairs.

## 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. (Formerly numbered History 564B.)

## 567. China's Century of Modernization (3)

China's modernization process from the early nineteenth-century Opium War through the People's Republic of China.
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.

## 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.

## GRADUATE COURSES

Refer to Bulletin of the Graduate Division.

# Hospitality and Tourism Management 

## OFFICE: Professional Studies and Fine Arts 430 <br> TELEPHONE: (619) 594-4964 <br> FAX: (619) 594-3320 <br> WEB SITE: www-rohan.sdsu.edu/dept/cbaweb/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, Communication, Exercise and Nutritional Sciences, Finance, Hospitality and Tourism Management, Information and Decision Systems, Management, Marketing, Recreation, Parks and Tourism, and Theatre, Television, and Film.
Director:Winston (Professional Studies and Fine Arts, General)

## Chair: Lamke (Recreation, Parks and Tourism)

Committee: Baker (Marketing), Beck (Recreation, Parks and Tourism), Capettini (Accountancy), Chung-Herrera (Management),
Kalustian (Theatre, Television, and Film), LaMaster (Exercise and
Nutritional Sciences), Mueller (Communication), 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 attractions, events, and convention management.

## Admission to the Major

Since 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, students must apply to enter the University under the hospitality and tourism management premajor code (05080). Before enrolling in any upper division courses in business or hospitality and tourism management, students must advance to an upper division HTM major and obtain an HTM emphasis major code. To be admitted to an upper division HTM major emphasis, students must meet the following criteria:
a. Complete with a grade of C or higher: Accountancy 201 and 202; Finance 240 (formerly 140); 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 ( $\mathrm{Cr} / \mathrm{NC}$ );
b. Clear the lower division competency requirement in writing. Refer to Graduation Requirements section of this catalog for details;
c. Complete a minimum of 60 transferable semester units;
d. Have a cumulative GPA of 2.90 as calculated by SDSU;
e. 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 Hospitality and Tourism Management Program Office (PSFA 430) 619-594-4964, for more information; and
f. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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 Attractions, Events, and Convention 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 attractions, events and convention 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 during their first semester on campus.

## Hospitality and Tourism Management Major

## With the B.S. Degree in Applied Arts and Sciences (Premajor Code: 05080) (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 $\mathrm{Cr} / \mathrm{NC}$; 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, 202; Economics 101, 102; Finance 240; Information and Decision Systems 180, 290; Mathematics 120 or 150; and Statistics 119 or Economics 201. (33-35 Units)

Upper Division Writing Requirement. Passing the Upper Division Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 48 upper division units to include Hospitality and Tourism Management 398, 421, 425, 427, 450, 460, 490, 498; Communication 307*; Finance 323; Information and Decision Systems 302; Management 350, 352; Marketing 370; Recreation 304, 470.

## Emphasis in Restaurant Operations and Management

Preparation for the Major. Hospitality and Tourism Management 201, 223; Accountancy 201, 202; Economics 101, 102; Finance 240; Information and Decision Systems 180, 290; Mathematics 120 or 150; and Statistics 119 or Economics 201. (33-35 Units)

Upper Division Writing Requirement. Passing the Upper Division Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 48 upper division units to include Hospitality and Tourism Management 398, 421, 425, 450, 460, 490, 498; Communication 307*; Finance 323; Information and Decision Systems 302; Management 350, 352; Marketing 370; Nutrition 303*, 303L*; Recreation 304, 470.

## Emphasis in Global Tourism Management

Preparation for the Major. Hospitality and Tourism Management 201, 223; Accountancy 201, 202; Economics 101, 102; Finance 240; Information and Decision Systems 180, 290; Mathematics 120 or 150; and Statistics 119 or Economics 201. (33-35 Units)

Upper Division Writing Requirement. Passing the Upper Division Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 48 upper division units to include Hospitality and Tourism Management 398, 411, 450, 460, 490, 498; Communication 307*, and 371 or Management 357; Finance 323; Information and Decision Systems 302; Management 350, 352; Marketing 370; Recreation 304, 470, and 477 or Hospitality and Tourism Management 413.

## Emphasis in Attractions, Events, and Convention Management

Preparation for the Major. Hospitality and Tourism Management 201, 223; Accountancy 201, 202; Economics 101, 102; Finance 240; Information and Decision Systems 180, 290; Mathematics 120 or 150; and Statistics 119 or Economics 201. (33-35 Units)

Upper Division Writing Requirement. Passing the Upper Division Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 48 upper division units to include Hospitality and Tourism Management 398, 431, 433 or 435, 450, 460, 490, 498; Communication 307*, Finance 323; Information and Decision Systems 302; Management 350, 352; Marketing 370; Recreation 304, 470, 475.

* Prerequisites waived for this course.


## Courses (HTM)

## LOWER DIVISION COURSES

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.
223. Hospitality Managerial Accounting and Controls (3)

Prerequisites: Accountancy 201 and 202.
Integrates areas of managerial accounting and controls with applications in hospitality industry. Internal control and cost management, operations budgeting, occupancy projections and pricing decisions, credit policy and cash flow, and investment decision-making.

## 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)

## 398. Internship I in Hospitality and Tourism (3) Cr/NC

Prerequisite: Completion of 15 upper division units in hospitality and tourism management major.

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.
411. Global Tourism Issues (3)

Prerequisite: Credit or concurrent registration in Hospitality and Tourism Management 490.

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 socio-psychological factors.

## 413. Cultural Tourism (3)

Two lectures and two hours of activity.
Prerequisite: Credit or concurrent registration in Hospitality and Tourism Management 490.

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.

## 421. Restaurant Development and Operations

(3)

Two lectures and three hours of laboratory.
Prerequisite: Credit or concurrent registration in Hospitality and Tourism Management 490.

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.

## 425. Property Management in Hospitality and Tourism (3)

Prerequisite: Credit or concurrent registration in Hospitality and Tourism Management 490.

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

## 427. Hotel Operations and Management <br> (3)

Two lectures and two hours of activity.
Prerequisite: Credit or concurrent registration in Hospitality and Tourism Management 490.

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

## 431. Convention and Meeting Management

(3)

Two lectures and two hours of activity.
Prerequisite: Credit or concurrent registration in Hospitality and Tourism Management 490.

Conference, convention, and meeting industry. Planning, developing, marketing, and implementing meeting and convention services with emphasis on staffing, budgeting, and logistics

## 433. Destination Management Services (

Prerequisite: Credit or concurrent registration in Hospitality and Tourism Management 490.

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.
435. Sporting Events and Festival Management (3)

Prerequisite: Credit or concurrent registration in Hospitality and Tourism Management 490

Organization and administration of attraction-based events focusing on scheduling, financing, budgeting and revenue distribution, logistics, planning techniques, marketing, contracts, and staging considerations.
450. Venture and Entrepreneurial Management in Hospitality and Tourism (3)
Prerequisites: 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.
460. Legal and Policy Issues in Hospitality and Tourism (3)

Prerequisite: Management 352.
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.
490. Strategic Management in Hospitality and Tourism

Prerequisite: Hospitality and Tourism Management 450
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.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree
498. Internship II in Hospitality and Tourism (3) Cr/NC

Prerequisite: Hospitality and Tourism Management 398 and completion of six units in hospitality and tourism management major emphasis area.

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.
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
Chair: Genovese
Professors: Eisner, Genovese, Skwara

## Offered by the Department of 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

As academic pursuits, the humanities comprise all uniquely human accomplishments. Founded in history, they are the studies of the artistic and intellectual traditions of civilized peoples. This includes language, literature, philosophy, religion, and the arts. The goal of the humanities major is an interdisciplinary understanding of peoples and their times through the accomplishments that portray and articulate best what they value most. In short, humanities shows us what being civilized amounts to, and by directing us to the meaning and worth of life, it helps us to create and enjoy a life of our own.

Majors in humanities may choose a general course of studies that allows for a balance between Western and non-Western civilization or they may emphasize European civilization, which takes its start with the Greeks. They all have at their disposal the audiovisual library of the Schaber Humanities Center and the use of the Burnett Classics Seminar Room. In addition to close academic advising and fellowship in a small department with diverse interests, they culminate their studies with a senior seminar.

With a background in critical analysis and with an appreciation of the history, ideas, and the arts, humanities majors are prepared for various careers. They might find opportunities in communication, diplomacy, or commerce. One might become a cultural consultant, an editor or writer, an arts critic, a travel consultant, or a museum curator. Some of these careers, as well as teaching or research, will require study beyond the bachelor's degree, but the broad, integrated humanities program is designed for success in many fields.

## Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

## Humanities Major

## With the B.A. Degree in Liberal Arts and Sciences (Major Code: 15991)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Each student must file an individual master plan with the humanities undergraduate adviser and with the Office of Advising and Evaluations.

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)

Foreign Language Requirement. (Select one, 14-28 units)
Chinese 101, 102, 201, 202, 301. (23 units)
French: Four courses from French 100A, 100B, 200, 201, 210, 220, 221; and one course from and French 301, 305A, 305B. (19 units)
German: Four courses from German 100A, 100B, 200, 205A, 205B; and one course from German 300, 301, 310, 420. (20-21 units)
Greek: Either Classics 101G-202G or 250G; and Classics 303G-304G. (14-16 units)
Italian 100A, 100B, 201, 210; and one course from Italian 301, 305A, 305B, 421. (19 units)
Japanese 111, 112, 211, 212, 311. (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 course from Russian 301, 430, 555, 563. (23 units)
Spanish: Four courses from Spanish 101, 102, 103, 202, 211, 212; and Spanish 301 or 302. (17-19 units)
See foreign language departments for equivalents. This fulfills foreign language degree requirement for the B.A. degree in Liberal Arts and Sciences.

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W or Rhetoric and Writing Studies 305 W or 500 W with a grade of C (2.0) or better.

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).

## 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)

Foreign Language Requirement. (Select one, 14-23 units)
French: Four courses from French 100A, 100B, 200, 201, 210, 220, 221; and one course from French 301, 305A, 305B. (19 units)
German: Four courses from German 100A, 100B, 200, 205A, 205B; and one course from German 300, 301, 310, 420. (20-21 units)
Greek: Either Classics 101G-202G or 250G; and Classics 303G-304G. (14-16 units)
Italian 100A, 100B, 201, 210; and one course from Italian 301, 305A, 305B, 421. (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 course from Russian 301, 430, 555, 563. (23 units)
Spanish: Four courses from Spanish 101, 102, 103, 202, 211, 212; and Spanish 301 or 302. (17-19 units)
See foreign language departments for equivalents. This fulfills foreign language degree requirement for the B.A. degree in Liberal Arts and Sciences.

Upper Division Writing Requirement. Passing the University Writing Examination or English 508W or Rhetoric and Writing Studies 305 W or 500 W with a grade of $\mathrm{C}(2.0)$ or better.

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.)

## 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) <br> LOWER DIVISION COURSES

## 101. Introduction to Humanities (3)

Preliminary investigation: How values and ideals are expressed in literary, artistic, and intellectual achievements of individuals and civilizations throughout the world.

## 130. The Jewish Heritage (3)

Hebraic and Jewish influences on the arts, literature, philosophy, and religion of Western civilization.

## 140. Mythology (3)

Comparative themes and figures from various mythologies of the world. Interpretation of myths; their influence on art, culture, and history.
296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES (Intended for Undergraduates)

## 310. French Civilization (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

French civilization from Middle Ages to present. Artistic, intellectual achievements and cultural movements.
320. German Civilization (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

German civilization of medieval, Renaissance-Reformation, and modern periods. Artistic, intellectual achievements and cultural movements.
330. Russian Civilization (3) I

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Russian civilization from Middle Ages to present. Artistic, intellectual achievements and cultural movements.

## 340. Italian Civilization (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Italian civilization of medieval, Renaissance, Baroque, and modern periods. Artistic, intellectual achievements and cultural movements.
370. Humanities in America (3) 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.

## 401. The Medieval Heritage (3) 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.

## 402. The Renaissance (3) 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.

## 403. The Baroque and the Enlightenment (3) 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.

## 404. The Modern European Heritage (3) 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: Romanticism, Realism, Naturalism, Impressionism, Symbolism, Surrealism, Expressionism, Existentialism.

## 460. African Civilizations (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C, Humanities required for nonmajors.

Interdisciplinary survey of sub-Saharan African civilizations, emphasizing religion, literature, and the arts from ancient times to the present.

## 490. Senior Seminar in Classics and Humanities (3)

Prerequisites: Classics or humanities major with more than 90 units; others with consent of department chair.

Senior capstone seminar in major. Discussion and research on topic in classics and humanities. Formal research paper.

## 496. Topics in Humanities (3)

Selected topics in literature and the arts. Comparative themes and critical approaches. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

## 596. Topics in Humanities (1-3)

Prerequisite: Upper division standing and consent of instructor.
Special topics on selected aspects of civilization from an interdisciplinary humanities perspective. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. No more than six units of 596 may be applied to either the bachelor's or master's degree. Maximum combined credit of six units of 596 and 696 applicable to a $30-$ unit master's degree.

## 599. Special Study (1-3)

Prerequisites: Humanities or European studies major or minor with upper division standing, twelve units in courses acceptable for major or minor, and consent of instructor and program chair; or graduate standing and consent of instructor and program chair.

Directed individual study. Maximum credit six units.

# Information and Decision Systems 

In the College of Business Administration

OFFICE: Student Services 2411
TELEPHONE: (619) 594-5316
FAX: (619) 594-3675

## A Member of AACSB International-The Association to Advance Collegiate Schools of Business.

## Faculty

Emeritus: Archer, Chen, Feeney, Gibson, Hatch, Langenbach, Norman, Schlesinger, Sherrard, Sondak, Spaulding, Straub Chair: Penrose
Professors: Beatty, Flatley, Koster, Lackritz, Penrose, Raafat, Vik, Yang
Associate Professors: Addo, Amoroso, Easton, A., Easton, G.,
Lyons-Lawrence, Reinig, Shin
Assistant Professors: Jennex, Plice, Shu
Lecturers: Johnson, Smolensky, 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.

## 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 is concerned that each individual upper division student makes reasonable academic progress toward earning a degree. To this end, the College will counsel students who have earned less than a "C" (2.0) average each semester. Further, such students will be warned that continued poor performance may result in their removal from any business major.

## Transfer Credit

Lower Division: Courses clearly equivalent in scope and content to San Diego State University courses required for minors or as preparation for all business majors will be accepted from regionally accredited United States institutions and from foreign institutions recognized by San Diego State University and the College of Business Administration.

Upper Division: It is the policy of the San Diego State University College of Business Administration to accept upper division transfer credits where (a) the course content, requirements, and level are equivalent to San Diego State University courses and (b) where the course was taught in an 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. Students must apply to enter the University under the business administration premajor code (05011). To be admitted to the upper division information systems major, students must meet the following criteria:
a. Complete with a grade of C or higher: Accountancy 201 and 202; Finance 240 (formerly 140); Information and Decision Systems 180 and 290; 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. Clear the lower division competency requirement in writing. Refer to Graduation Requirements section of this catalog for details;
c. Complete a minimum of 60 transferable semester units;
d. Have a cumulative and SDSU GPA of 2.90;
e. 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; and
f. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).

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).

## 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 and 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.

Upper Division Writing Requirement. Information and Decision Systems 396W with a grade of C (2.0) or better.

Major. Forty-two upper division units consisting of Information and Decision Systems 302, 306, 315, 396W, 406, 480, 483, 492; Finance 323; Management 350 and 405 or Business Administration 404; Marketing 370; six units selected from Information and Decision Systems $301,375,460,482,515,520$. 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. A maximum of six lower division units in principles of accounting courses may be used to satisfy degree requirements.

Students must complete all upper division courses in the major within seven years prior to graduation. Students who will have completed any of those courses more than seven years before the projected date of graduation must contact the department chair for information about ways to certify knowledge of current course content.

## 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 406, 480, 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 SDSU lower division writing competency requirement; 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)

## LOWER DIVISION COURSES

180. Principles of Information Systems (3) I, II

Applications of computerized systems in business organizations. Basic concepts of computer organization, data processing systems, decision support systems and systems analysis. Solving business problems through use of spreadsheet software.

## 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 <br> (Intended for Undergraduates)

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.
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.

## 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.

## 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.

## 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.

## 390W. Reporting Techniques for Accountants (4)

Prerequisites: Credit or concurrent registration in Accountancy 321; fulfillment of Writing Competency requirement, completion of 60 units, and the General Education requirement in Communication and Critical Thinking. Satisfies University Upper Division Writing requirement as specified in the Graduation Requirements section. 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.

## 396W. Reporting Techniques for Business Professionals (3) I, II

Prerequisites: Information and Decision Systems 290; fulfillment of Writing Competency requirement, completion of 60 units, and the General Education requirement in Communication and Critical Thinking Satisfies University Upper Division Writing requirement as specified in the Graduation Requirements section. 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.

## 406. Information Systems Design (3) I, II

Prerequisites: Information and Decision Systems 306 and credit or concurrent registration in Information and Decision Systems 480.

Business information systems design, installation, and implementation as part of the systems development life cycle, with emphasis on structured design methodology.

## 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.

## 480. 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.

## 482. Information Systems Management Practicum (3)

Prerequisite: Completion of at least 18 units of upper division information and decision systems courses.

Information system development project applying knowledge gained in previous coursework to a practicum project in the community. Application of information systems project management techniques.
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 loca area networks. Protocols and network operating systems. Network security and control.

## 492. Management of Information Systems (3) I, II

Prerequisite: Information and Decision Systems 306 and 480. 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. Examination of management issue related to systems development and implementation. Management of computer operations and the computer center.

## 496. Selected Topics in Information Systems (1-4) I, II

Prerequisite: Consent of department chair.
Selected areas of concern in information systems. See Class Schedule for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

## 498. Investigation and Report (1-3) I, II

Prerequisites: Senior standing and consent of instructor.
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
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)

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.

## 520. Java Programming for Business Applications <br> (3)

Prerequisite: A course in $\mathrm{C} / \mathrm{C}++$ 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 Bulletin of the Graduate Division.

# 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 American Studies, 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 201
Telephone: (619) 594-5841
FAX: (619) 594-7934

## Advising

Preliminary approval of the major must be secured from the Associate 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 several possible combinations of themes including Human Services, Performing Arts, and Pre-Health Professions.

## 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-201) 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 201 and either Biology 100 or 202 (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.

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units selected from three departments: (a) with no fewer than nine units from each of the three departments; and (b) with no fewer than six units from each of the three departments completed at San Diego State University; and (c) with minimum overall and San Diego State University grade point averages of 2.0 in each of the three departments.

## Urban Studies

## In the College of Arts and Letters and the College of Professional Studies and Fine Arts

Office: Professional Studies and Fine Arts 105
Telephone: (619) 594-6224

## Faculty

Urban studies is administered by the Urban Studies Committee. The program draws upon courses offered by faculty in the Departments of Anthropology, 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), Pendleton (Anthropology), Rodriguez (Chicana and Chicano Studies), Terrell (Political Science)

## Advising

All urban studies majors must meet at least once each semester with the urban studies program coordinator for advice on meeting general program requirements and for assignment to an urban studies adviser within the department of concentration.

## The Major

The major in urban studies is designed to prepare students for career opportunities in the urban milieu by providing an interdisciplinary major focused on the urban community, its environment and problems. The major combines the study of broad issues and theoretical concerns with specialized training in urban analytical research methodologies.

## Urban Studies Major

## With the B.A. Degree in Liberal Arts and Sciences (Major Code: 22141)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements in the section of this catalog on "Graduation Requirements." Students are cautioned that several of the required and elective courses have prerequisites.

A minor is not required with this major.
Preparation for the Major. Anthropology 102; Economics 101, 102; Geography 102; Political Science 101 or 102; Sociology 101; and 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)

Foreign 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 this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 30 upper division units to include 12 units selected from the following: 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 selected from Economics 320, 321, 401, 489, 507, 565.

Geography. Required: Geography 385 or 585 ; and 12 units selected from Geography 353, 381, 385, 488, 554, 556, 559, 572, 585, 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 515A; 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, 527, 537, 543.

## 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 582*, 586*, Geography 370, Geological Sciences 521*, Political Science 334, or three units of 499 with the approval of the adviser.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed 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.

* Additional prerequisites may be required for courses in the minor.


## 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, 577, 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, Community Health Education 350, Economics 452, 454, 489, Geography 378, 409, 570, 572, 574, Geological Sciences 301, 303, History 441, 540, International Security and Conflict Resolution 301, Oceanography 541, 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.

# International Business 

In the College of Arts and Letters and the College of Business Administration

OFFICE: Business Administration/Mathematics 431<br>TELEPHONE: (619) 594-4505 / FAX: (619) 594-7738<br>EMAIL: ib@mail.sdsu.edu<br>WEB SITE: 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, American Studies, Anthropology, 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)
Senior Academic Coordinator: Claudia Allen
Undergraduate Adviser: Patricia Torgerson
Internship Director: Renatte K. Adler (Economics)
Committee: Adler (Economics), Donahue (International Business), Earwicker (CIBER), Gerber (Economics), Hergert (Management), Higurashi (Japanese), Krentler (Marketing),
Rhyne (Management), Saghafi (Marketing), Salehizadeh (Finance), Schorr (European Studies), Weiner (Asia Pacific Studies)

## Offered by International Business

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

Emphases in language: Chinese, English, French, German, Italian, Japanese, Portuguese, Russian, and Spanish.
Emphases in regional/cultural studies: Africa, Asia, Latin America, Middle East, 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 Chinese, English, French, German, Italian, Japanese, Portuguese, Russian, and Spanish) and one of seven emphases in regional/cultural studies (chosen from Africa, Asia, Latin America, Middle East, 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. 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.

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.

## 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.

## Semester Abroad Requirement

All foreign or domestic International Business majors are required to complete a study abroad or internship abroad experience of at least one semester in length. One semester abroad consists of 180 hours of either coursework or internship. To complete the 180 hours abroad, International Business majors studying abroad must complete 12 units of an approved program (for the most current listing, consult the International Business Exchanges and Multiple Degree Programs office). The study abroad experience must be done in the language and region of the student's emphases. Students must study at least two upper division business courses of the four courses (180 hours) that they must take abroad, all in the target language. Students must successfully complete all four courses with a passing grade otherwise the study abroad requirement will not have been met. Exceptions may be made in Chinese, Japanese, or Russian. Unapproved study abroad programs will not meet the semester abroad requirement for the major.

## Impacted Program

The international business major is an impacted program. Students must apply to enter the University under the international business premajor code (80000). Before enrolling in any upper division courses in business administration, students must advance to the upper division international business major and be admitted into the international business major code (05131). 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 ( $\mathrm{Cr} / \mathrm{NC}$ );
b. Complete or test out of one language sequence: Chinese 101, 102, 201, 202 (20 units); French 100A, 100B, 201, 210, 220, 221 (22 units); German 100A, 100B, 200, 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, 211 (23 units); or Spanish 101, 102, 103, 202, 211, 212 (22 units). For English, Communication 103 and 204; Information and Decision Systems 290; Rhetoric and Writing Studies 100 or Linguistics 100; Rhetoric and Writing Studies 200 or Linguistics 200 (15 units).
c. Clear the competency requirement in writing. Refer to Graduation Requirements section of this catalog for details;
d. Complete a minimum of 60 transferable semester units;
e. Have a cumulative GPA of 2.90 or higher;
f. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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.

## 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.

## PanAmerica Dual Degree

PanAmerica 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 PanAmerica 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 PanAmerica 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.

## 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.

## TransAtlantic Dual Degree

TransAtlantic is a transnational dual degree program between San Diego State University (SDSU) and the European School of Economics (ESE). Students may enter the program at either of the two schools and must spend a minimum of two years of study each in the United States and in Italy.

Participants in TransAtlantic 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 TransAtlantic program must complete 82 units of international business courses. Approximately half of all of these requirements are completed in Italian while attending school in Italy. Successful participants earn both the Bachelor of Arts degree in Liberal Arts and Sciences with a major in International Business, emphases in Italian and Western Europe from SDSU and the BA (Honors) in International Business with specialization in European Business from ESE.

## 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 $\cup A B C$.

## TransAmerica Triple Degree

TransAmerica 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 TransAmerica 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 TransAmerica 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 Negociaciones 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 and participate as interns in the United States, Canada, and Mexico. Students are immersed in the culture and language of each of the NAFTA partners.

Project North America is a consortium of six universities, two each from the United States (San Diego State University and the University of North Carolina), Canada (Bishop's University and Simon Fraser University), and Mexico (Centro de Enseñanza Técnica y Superior (CETYS) and Universidad de Guadalajara). 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.

## Study Abroad Programs

The international business program currently has direct exchange agreements with: Bishop's University, Québec, Canada; Centro de Enseñanza Técnica y Superior (CETYS), Mexicali and Tijuana, Mexico; Ecole Supérieure des Practiciens de Commerce International (Groupe ESSEC), Cergy Pontoise, France; Fachhochschule Reutlingen, Reutlingen, Germany; Instituto Tecnológico 7 de Estudios Superiores de Monterrey (ITESM), 26 campuses throughout Mexico; Northeastern University, Shenyang, P.R. China; Pontificia Universidade Católica do Rio de Janeiro (PUC-RIO), Rio de Janeiro, Brazil; Simon Fraser University, Vancouver, B.C., Canada; 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 Concepción, Concepción, Chile; Universidad de Guadalajara, Guadalajara, Mexico; Universidad de Guanajuato, Guanajuato, Mexico; Universidad de San Francisco, Quito, Ecuador; Universidad Técnica Federico Santa Maria, Valparaíso, Santiago, Rancagua and Talcahano, Chile; 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.

## Internships

Students in the major complete internships in international business in the U.S. and abroad by enrolling in International Business 495. Students are urged to enroll in this course no later than a year prior to their graduation date. Those completing the internship abroad should enroll in the course a semester prior to leaving the United States. Enrollment after the University's add deadline is not permitted.

## 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.

## International Business Major

With the B.A. Degree in Liberal Arts and Sciences
(Premajor Code: 80000U) (Major Code: 05131)
Applications from new students will be accepted by the University only during the months of August for the following spring semester and November for the following fall semester. Declaration of the preinternational business major will be accepted from continuing students only during August and January.

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: 38-51 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. Native speakers are strongly encouraged to avoid emphasizing their first language.
${ }^{\dagger}$ Chinese 101, 102, 201, 202. (20 units)
English (Not open to native speakers of English nor to students who graduated from secondary school where English was the principal language of instruction nor to students with near-fluency in English.) Communication 103 and 204; Information and Decision Systems 290; Rhetoric and Writing Studies 100 or Linguistics 100; Rhetoric and Writing Studies 200 or Linguistics 200. (15 units)
French 100A, 100B, 201, 210, 220, 221. (22 units)
German 100A, 100B, 200, 205A, 205B. (21 units)
Italian 100A, 100B, 201, 210. (16 units)
$\dagger$ Japanese 111, 112, 211, 212. (24 units) (Not open to speakers of Japanese who have completed compulsory education through junior high school in Japan.)
Portuguese 101, 201. (10 units)
§Russian 100A, 100B, 200A, 200B, 211. (23 units)
Spanish 101, 102, 103, 202, 211, 212. Spanish 281 replaces 103 and 211; and Spanish 282 replaces 202 and 212 for U.S. Hispanics. See adviser in Spanish Department. (22 units)
$\dagger$ Students choosing Chinese or Japanese language emphasis must complete the Asia 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: History 100 and 101.
Asia: Asian Studies 100, 101.
Latin America: Six units selected from History 115, 116 (recommended); Latin American Studies 101 (recommended).

Middle East: History 100 and 101.
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).
Foreign Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. (Complete I, II, and III below: 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: Management 357 and one 300 or 400 -level course in management, except Management 457.
Marketing: Two marketing courses at the 300-level or above.
II. Language Emphasis (choose one language): Students who have graduated from a secondary school whose primary language of instruction is the same as the language emphasis chosen in this major must still complete the upper division language courses. Contact International Business for details.

Chinese 301, 302, 431, 434. (12 units)
English (Not open to native speakers of English nor to students with native-like fluency in English.) Communication 307, 371; Linguistics 305W or Rhetoric and Writing Studies 305 W or 500W; Information and Decision Systems 396W or Rhetoric and Writing Studies 503W. (12 units)
French 301, 302, 422, and 423. (12 units)
German 300 or 310, 301, 303, 420. (12 units)
Italian 301; 305A, 305B, 421. (12 units)
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; and two courses selected from 304, 501, 580. (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 Exit Examination. Students are required to satisfy the Language Proficiency Exit Examination during or immediately following the semester in which they complete their last language course. To clear the language proficiency exit requirement, students must achieve a passing score on a language examination approved by the international business program. For further information concerning test dates and fees, contact the International Business office.
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 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: International Business 495, 498, and a minimum of nine units, with no more than six units from one department selected from Africana Studies 463, 470; Art 569; Communication 371+; Comparative Literature 440; Economics 336, French 465; History 475, 476; Humanities 460; Political Science 364, 393 ${ }^{+}$, 496+; Religious Studies 328; Women's Studies $580^{+}$.

Asia: International Business 495, 498, and a minimum of nine units, with no more than two courses from one department selected from Anthropology 450, 452, 453, 582+; Asian Studies 331, 458*, 459*; Chinese 351@, 352, 431, 433@, 450@, 451@; Communication 371+; 'Comparative Literature' 455, 460, 530; Economics 330, 336*, 360, 365, 465; History 420, 421, 422, 480, $563,564,565,566,567,569,570$; Japanese 321, 322, 412\#, 421, 422, 496+; Philosophy 351, 575+; Political Science 362, 393+, $496^{+}$, 563, 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+; Comparative Literature 445; Economics $336^{+}$, 360 (recommended), 365, 464, 565; Geography 323, 324, 353+; History $415,416,480,550,551,552,554,555,556,558,559 *$; Latin American Studies 498, 530, 531, 560, 580; Political Science 393, 481+, 482, 496 ${ }^{+}$, 566, 567, 568, 575*; Portuguese 535; Public Administration $580^{\star+}$; Spanish 341, 342, 406A, 406B, 491*, 492*, 493*; Women's Studies $310^{+}$, $512,580^{+}$.

Middle East: International Business 495, 498, and a minimum of nine units, with no more than six units from one department, selected from Art 596+; Communication 371+; History 473, 474, 488, 574; Political Science 363, 496+; Religious Studies 320, 328; Women's Studies $580^{+}$.

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, 324, 340, 350A, 355, 375, 380, 400, 498*; History 550, 551; Latin American Studies 575; 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; American Studies 580; 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, 358; History 450W, 442A, 442B, 444, 445, 455, 530, 532, 536, 540, 544A, 544B, 545A, 545B, 547A, 547B, 548A, 548B; Humanities 370; Linguistics 524; Political Science 305, 320, 321, 334, 335, 347A, 347B, 348, 422, 436, 478, 496 ${ }^{+}$, 531; Public Administration 485; Religious Studies 385, 390A-390B; Sociology 320, 335, 355, 421, 430, 433, 531, 532, 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; Geography 337; History 518A, 518B; Humanities 330; Political Science 359, $393^{+}, 496^{+}$; Russian 304\%\$, 305A, 305B, 430\$, 501\%\$, 555\$, 563\$, 580\%\$.

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 511, 512, 513, 514; Economics 330, 360; European Studies 301, 424, 501; French 305A, 305B, 421, 424; Geography 336, 353+; German 310, 320, 520*, 530*; History 407, 408, 480, 504, 505, 506, 507, 512A, 512B, 513B, 514*, 517, 522, 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.

* 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.
\% Indicates courses that may be used to satisfy the major requirement in regional/cultural studies emphasis when not used to satisfy the language emphasis.
\$ Two of these courses are required of students choosing Russian to satisfy the language emphasis of the major.


## Language Proficiency Exit Examination

For information regarding the Language Proficiency Examination for Chinese, Italian, Japanese, Portuguese, and Russian, contact the individual language department.

## Certificat professionel

The Center for International Business Education and Research (CIBER) administers the Chambre de Commerce et d'Industrie de Paris Certificat 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 Exit Examination for the French language emphasis in international business. Examination intended for non-French nationals.

## Test of English for

International Communication
The American Language Institute (ALI) administers the Test of English for International Communication (TOEIC) several times throughout the academic year. Students sit for the TOEIC examination and the oral test also administered by the ALI during or following the semester they complete their last upper division course in the English language emphasis. Passage of this examination is required to clear the Language Proficiency Exit Examination for the English language emphasis in international business.

## Examen Internacional de Negocios en Español

The Center for International Business Education and Research (CIBER) 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 Exit Examination for the Spanish language emphasis in international business.

## Zertifikat Deutsch für den Beruf

The German program administers the Zertifikat Deutsch für den Beruf examination at the end of each spring semester. Students taking German 303 normally sit for the Zertifikat examination as a part of the course. Passage of this examination is required to clear the Language Proficiency Exit Examination for the German language emphasis in international business. Examination not available to native speakers of German.

## Courses (IB)

## LOWER DIVISION COURSES

## 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.

## 299. Special Study (3-6)

Prerequisite: Pre-International Business major.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES (Intended for Undergraduates)

## 490. Senior Honors Thesis (3) I, II Cr/NC

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.

## 495. International Business Internship (3) I, II Cr/NC

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.

## 498. Doing Business Internationally (1) $\mathbf{C r} / \mathrm{NC}$

Prerequisite: Upper division status in the major.
Business customs and protocol pertinent to a foreign language and the regions in which that language is spoken. Course is waived for students completing an approved study program or internship abroad and for students completing the language emphasis in English.

## 499. Special Study (1-6)

Prerequisite: International business major.
Individual study. Maximum credit six units.
UPPER DIVISION COURSE (Also Acceptable for Advanced Degrees)

## 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.

# International Security and Conflict Resolution 

OFFICE: Nasatir Hall 127<br>TELEPHONE: (619) 594-1095<br>FAX: (619) 594-7302<br>EMAIL: iscor@mail.sdsu.edu

In the College of Arts and Letters, the College of Professional Studies and Fine Arts, and 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:
Mclllwain (Public Administration and Urban Studies)
ISCOR Curriculum Committee: Alexseev (Political Science), Guang (Political Science), Gupta (Political Science), Mclllwain (Public Administration and Urban Studies), Sabbadini (Biology), Sweedler (Physics), Weiner (Asia Pacific Studies), Zhang (Sociology)

## Offered by International Security and Conflict

## Resolution

Major in international security and conflict resolution with the B.A. degree in liberal arts and sciences.

## The 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. 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.

## 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 minimum of three units of study abroad. 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:
(a) Anthropology 102 or Geography 102;
(b) Comparative Literature 270B, History 100, or Philosophy 101;
(c) 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.

Foreign Language Requirement. It is strongly recommended that international security and conflict resolution majors consider either a minor or a second major in a foreign language. In addition, international security and conflict resolution majors may wish to obtain language certification in a foreign language. A minimum competency (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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include 18 units in International Security and Conflict Resolution 300, 301, 310, 320 and either 495 or 497; Political Science 375; and 18 units from one of the three specializations: Global Systems; Cooperation, Conflict, and Conflict Resolution; or Environment and Security.

## Specialization in Global Systems

This specialization focuses on the political, economic, and social characteristics of global systems, which include the study of international relations, comparative regional studies, and internationally mobile populations. An understanding of global systems will provide the context for analyzing issues of international security, cooperation and conflict.

Requirements for specialization. A minimum of 18 units to include Economics 360; six units selected from Economics 330; History 480; International Security and Conflict Resolution 475; 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 336 or 365; Geography $312^{+}, 554^{+}$; History 408 or 486 or 512A or 512B; History $543^{++}$or 544 B ; Political Science 361 or 478 or 479 or $481^{++}$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, 555, 564, 565; 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++; Biology 339++; Communication $371^{++}$,
$455^{++}$; 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; Geography 337; History 486, 512A, 514+, 533B, 556, 574; Political Science 363, 364, 566; Sociology 355++; Women's Studies 375, $536^{++}$; and three units selected from Africana Studies 325, 452+; Communication 408; International Security and Conflict Resolution 475; 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 $315^{++}$; Community Health Education 362; Economics 452; Geography 370+; Physics 301; Political Science 334; Sociology $350^{++}$; and nine units selected from courses listed above or from Biology $324^{+}$, $339^{++}$, $354^{+}$; Community Health Education 350; Economics 453, 489; Geography 378+, 570+, 574+; History 441; International Security and Conflict Resolution 475; Natural Science 333; Philosophy 329, 332, 333. 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.


## Courses (ISCOR)

## UPPER DIVISION COURSES

 (Intended for Undergraduates)300. Global Systems (3) 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.

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

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

## 320. International Security in the Nuclear Age (3) 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.

## 421. Alternative Dispute Resolution:Theory and International

 Applications (3) IPrerequisite: 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.
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.

## 475. Homeland Security (3)

Prerequisite: Upper division standing.
Components of homeland security. Research and analysis of policies, laws, and civil rights, including comparisons between nations. Relationship between international conflicts and homeland security in the United States.

## 495. Internship in International Security and Conflict

 Resolution (3) I, IIPrerequisites: Senior standing. Nine units of international security and conflict resolution core courses and nine units in selected specialization. Consent of instructor.

Supervised internship of 150 hours in government or nongovernmental agency, office or business in an area directly related to international security and conflict resolution.

## 496. Selected Topics in International Security and Conflict

 Resolution (1-3)Selected topics in international security and conflict resolution. See Class Schedule for specific content. May be repeated with new content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 497. Thesis in International Security and Conflict

 Resolution (3) I, IIPrerequisites: Senior standing. Nine units of international security and conflict resolution core courses and nine units in selected specialization. Consent of instructor.

An original and comprehensive written description and analysis of a problem or problem area in international security and conflict resolution.

## 499. Special Study (1-3) 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.

## Italian

In the Department of European Studies In the College of Arts and Letters

## Faculty

Emeritus: Vergani, G., Vergani, L.
Interim Chair: Benkov
Assistant Professor: Guidotti
Lecturer: Fellin
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 in Italian, nine units of which must be in upper division courses in the language, with a minimum of six upper division units completed in residence at San Diego State University.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable.

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.

## Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Italian to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Italian 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 foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first two years of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

OFFICE: Business Administration 304
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EMAIL: italian.coord@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 foreign language requirement.

## Courses (TTAL)

## 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.

## 100A. Elementary Italian I <br> (5) I, II

Pronunciation, speaking and writing, readings on Italian culture and civilization, essentials of grammar. Not open to students who have completed three years of high school Italian unless the third course was completed five or more years ago.

## 100B. Elementary Italian II (5) I, II

Prerequisite: Italian 100A or two years of high school Italian.
Continuation of Italian 100A. Not open to students who have completed four years of high school Italian unless the fourth course was completed five or more years ago

## 201. Reading and Speaking Italian (3) 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 Foreign Language Graduation Requirement (FLGR).

Emphasis on spoken language with readings of cultural material serving as a basis for discussion.
210. Intermediate Grammar and Composition (3) 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.

## 296. Topics in Italian Studies (1-4)

Prerequisite: Italian 100B or three years of high school Italian.
Topics in Italian language and culture. May be repeated with new content. Taught in Italian. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division Italian courses are taught in Italian unless otherwise noted.

Italian 301 is not open to students who hold the Italian secondary school diploma.

## 301. Advanced Oral and Written Composition (3)

Prerequisites: Six units of 200-level Italian, and completion of the General Education requirement in Foundations II.C., Humanities.

Grammar review. Reading of modern Italian prose, with written reports and oral discussions in Italian.

## 305A. Italian Literature (3)

Prerequisites: Six units of 200-level Italian, and completion of the General Education requirement in Foundations II.C., Humanities.

Important movements, authors and works in Italian literature from Middle Ages to the Renaissance.

## 305B. Italian Literature (3)

Prerequisites: Six units of 200-level Italian.
Continuation of Italian 305A from the Renaissance to the present.

## 421. Italian Civilization (3)

Prerequisites: Six units of 200-level Italian, and completion of the General Education requirement in Foundations II.C., Humanities.

Major aspects of Italian civilization with emphasis on art, music, history, and cinema.

## 496. Selected Topics (1-4)

Topics in Italian language, literature, culture and linguistics. Conducted in English or in Italian. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit eight units.

## 499. Special Study (1-3) I, II

Prerequisites: Italian 301 and 305A or 305B.
Individual study. Maximum credit six units. This course is intended only for students who are currently enrolled in or who already have credit for all upper division courses in Italian available in any given semester.

# Japanese 

In the Department of Linguistics and Oriental Languages In the College of Arts and Letters

OFFICE: Business Administration 327<br>TELEPHONE: (619) 594-5268<br>FAX: (619) 594-4877

## Faculty

Chair: Kaplan
Professor: Higurashi
Associate Professor: Kitajima

## Offered by the Department of Linguistics and Oriental Languages

Major in Japanese.
Major in international business, with emphasis in Japanese.
See International Business.
Minor in Japanese.

## The Major

Japanese is the fastest growing language in U.S. higher education. Due to the interdependence between the U.S. and Japan, as well as Japan's role in the world economy, the importance of Japanese has become evident.

Students who major in Japanese will gain proficiency in Japanese language skills, and the department offers a broad variety of courses designed to prepare majors for a number of careers after graduation A major in Japanese is also a good preparatory curriculum for graduate programs in such areas as international business, international law, librarianship, public administration, and journalism.

A knowledge of Japanese is a valuable asset in finding positions as interpreters and translators employed by the federal government the United Nations, international conferences, trade councils, and publishers, as well as internationally oriented companies, government agencies, the press corps, and the tourism industry. It also gives graduates an advantage in looking for positions in Japan in such areas as language teaching, business consulting, or journalism.

## Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters are declaration or change of major.

## 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 Test 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.

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 32 upper division units in Japanese to include Japanese 311, 312, 321, 322, 411, 412, 421, and 422.

## Japanese Minor

The minor in Japanese consists of a minimum of 24 units in Japanese, at least 12 units of which must be in upper division courses.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of eight upper division units must be completed in residence at San Diego State University, and a proficiency level equal to that of Japanese 411 must be demonstrated.

## Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Japanese to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Japanese 211 or the equivalent level of achievement. The usual sequence of coursework is Japanese 111, 112, and 211. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

## High School Equivalents

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

Secondary school language courses can be used as follows:

1. The first two years of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.
2. The first three years of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.
3. Four years of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the foreign 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 current Class Schedule.

## Courses (JAPAN)

## 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.

## 111. Elementary Japanese I (6) I

Six lectures and one hour of laboratory.
Elementary language skills: fundamental grammar, idiomatic expressions, hiragana, katakana, and basic kanji characters. Reading, writing, speaking, oral-aural drills, and relationship between language and culture. Not open to students who have completed three years of high school Japanese unless the third course was completed five or more years ago. (Formerly numbered Japanese 101.)

## 112. Elementary Japanese II (6) II

Six lectures and one hour of laboratory.
Prerequisite: Japanese 111.
Continuation of Japanese 111. Preparation for Japanese 211. Not open to students who have completed four years of high school Japanese unless the fourth course was completed five or more years ago. (Formerly numbered Japanese 102 and 202.)

## 211. Intermediate Japanese I (6) I

Six lectures and one hour of laboratory.
Prerequisite: Japanese 112.
Continuation of Japanese 112. More kanji and grammar. Further development of language competence for advanced courses in Japanese. Preparation for Japanese 212. (Formerly numbered Japanese 201 and 303.)

## 212. Intermediate Japanese II (6) II

Six lectures and one hour of laboratory.
Prerequisite: Japanese 211.
Strengthening communication skills in Japanese; various literary styles; additional kyoiku kanji. Cultural values shaping modern Japanese society; intercultural communication. Preparation for Japanese 311.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 299. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division courses in Japanese are taught in Japanese unless otherwise stated.

No credit will be given for Japanese 311, 312, 411, 412 taken out of sequence.
311. Third Year Japanese I (4) 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.

## 312. Third Year Japanese II (4) 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.

## 321. Advanced Japanese Discourse (4)

Prerequisite: Japanese 212.
Varieties of Japanese such as broadcasting Japanese, lectures, business negotiations, and ceremonial discourses. Focus on listening comprehension.

## 322. Advanced Conversation Through Media

(4)

Prerequisite: Japanese 311.
Development of advanced conversation skills through understanding and analysis of social and linguistic aspects of modern Japanese drama. Role play, practical vocabulary, and useful expressions; conversation on assigned topics.

## 411. Fourth Year Japanese I (4)

Prerequisite: Japanese 312.
Continuation of Japanese 312. Further strengthening of communication skills in Japanese; various literary styles; more chugaku kanji. Social and economic issues in Japan and in the U.S.; cultural values shaping business conduct in Japan; characteristics of Japanese management; intercultural communication. Preparation for Japanese 412.
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.

## 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.

## 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.

## 496. Topics in Japanese Studies (1-4)

Topics in Japanese language, literature, culture and linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit eight units.
499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## Jewish Studies

In the College of Arts and Letters

## 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; History; Linguistics and Oriental Languages; Religious Studies; and Sociology 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: Bar-Lev (Linguistics), Baron (History), Cayleff (Women's Studies), Chandler (Sociology), Cummins-Lewis (English), Grossbard-Shechtman (Economics), Kohn (Religious Studies), Koster (Information and Decision Systems), Mclllwain (Public Administration), Moore (Religious Studies), Shapovalov (Russian), Strom (Teacher Education), Wood (Sociology)

## 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.

# ${ }^{66}$ Nothing in life is to be feared. It is only to be understood.9 

-Madame Curie

## 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. Humanities 130 and either Religious Studies 101 or 103. (6 units)

Foreign Language Requirement. Hebrew 101, 102, and 201.
Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units. 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)
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 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

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 Humanities 130 and Hebrew 101, 102, 200, or 201; and 12 upper division units selected from Jewish Studies 495, 496; Comparative Literature 405; Hebrew 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)

## LOWER DIVISION COURSES

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.
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 <br> (Intended for Undergraduates)

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.
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.

# Latin American Studies 

OFFICE: Storm Hall 146
TELEPHONE: (619) 594-1103

## Faculty

Latin American studies is administered by the Latin American Studies Committee. Faculty assigned to teach courses in Latin American studies are drawn from 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), Ball (Anthropology), Carruthers (Political Science), Colston (History), De la Luz Ibarra (Chicana and Chicano Studies), Del Castillo (Chicana and Chicano Studies), DeVos (History), Esbenshade (Sociology), Fredrich (Geography), Ganster (Institute for Regional Studies of the Californias), Gerber (Economics), Godoy (Spanish), Griffin (Geography), Griswold del Castillo (Chicana and Chicano Studies), Herzog (Public Administration and Urban Studies), Hicks (Chicana and Chicano Studies), Hidalgo (Spanish), Hill-
Maher (Political Science), Kish (Spanish), Iglesias Prieto (Chicana and Chicano Studies), Lippold (Anthropology), Loveman (Political Science), Lyman-Hager (Language Acquisition Resource Center), Martín-Flores (Spanish), Mattingly (Women's Studies), Murillo (History), Múzquiz-Guerreiro (Spanish), Nericcio (English and Comparative Literature), Ojeda (Sociology/Chicana and Chicano Studies), Ortiz (Chicana and Chicano Studies), Pérez (Anthropology), Rivera-Garza (History), Robinson (Spanish), Rodriguez (Chicana and Chicano Studies), Silverman (Portuguese), Strejilevich (Spanish), Stromberg (Language Acquisition Resource Center), Talavera (Public Health), Waisman (Spanish), Watson, M. (Women's Studies), Weeks (Geography), Wilson (Spanish), Young (Spanish).

## Offered by Latin American Studies

Master of Arts degree in Latin American studies.
Major in Latin American studies with the B.A. degree in liberal arts and sciences.
Minor in Latin American studies.

## The Major

The major in Latin American studies is a multidisciplinary program designed to provide an effective understanding of the cultures and governments of Latin America, offering basic education and training for business or professional careers that require specialized knowledge of this exciting and diverse area of the world.

A major in Latin American studies provides a multitude of career opportunities. Employment possibilities exist not only in Latin America, but throughout the world. Graduates can apply their specialization to service in international organizations and government positions at the federal or state level. Numerous employment situations can be found in the private sector. Private agencies and corporations have significant interests in Latin America and are looking for area specialists. Those students who wish to continue in their studies will find opportunities in teaching at all levels. A major in Latin American studies opens many avenues in the choice of a career.

High school students preparing to enter this program should include in the high school course of study not less than three years of study in one foreign language, preferably Spanish or Portuguese. Proficiency in either of these languages is indispensable to a successful career in this area of study.

## Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible. Students are required to meet with their department adviser within the first two semesters after declaration or change of major.

## Latin American Studies Major

## With the B.A. Degree in Liberal Arts and Sciences

## (Major Code: 03081)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.
Preparation for the Major. Portuguese 101, 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.

Foreign Language Requirement. The foreign language requirement is automatically fulfilled through preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units selected from courses in anthropology, art, Chicana and Chicano studies, economics, geography, history, Latin American studies, political science, Portuguese, sociology, Spanish, and women's studies, with not less than 12 units in one field and nine in each of two other fields. At least 33 units must be in courses having Latin American content.

Courses acceptable for the Latin American studies major include:

Latin American Studies 495, 498, 530, 531, 560, 575, 580; Anthropology 442*, 508*, 582*, 583+*; Art 557*, 577*; Chicana and Chicano Studies 306, 310, 335, 340, 350A, 355, 375, 376, 380, 498; Communication 591*; Comparative Literature 445, 561+, $562^{+}, 563^{+}$, 571+, 594+; Economics 336, 360, 365, 464, 561*, 565, 592*; English 501, 502; Geography 323, 324, 498+, 507, 509, 545*, 554*; History 415, 416, 444, 550, 551, 552, 554, 555, 556, 558, 559; Political Science 361, 531, 555, 560, 566, 567*, 568, 577; Portuguese 535*; Public Administration and Urban Studies 580*; Sociology 350, 450*, 522*, 527*; Spanish 341*, 342*, 406A-406B*, 515*, 520*; Television, Film, and New Media 363+, 562*; Women's Studies 310, 515*, 521*, 522*, 530*, 536*, 553*, 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.

* Indicates course with prerequisites not included in requirements listed above.
+ Acceptable when of relevant content.


## Latin American Studies Major

## (Imperial Valley Campus)

## With the B.A. Degree in Liberal Arts and Sciences (Major Code: 03081)

At the Imperial Valley campus the major in Latin American studies is essentially the same as the Latin American studies major offered at the San Diego campus.

It is designed to provide (1) a foundation of understanding of the history, culture and governments of the countries of Latin America
and the multiple interrelationships among those countries; and (2) a basic education and training for a business or professional career involving understanding of Latin America.

A minor is not required with this major.
Preparation for the Major. The lower division preparation for the major can be fulfilled by taking the following courses at a community college, or their equivalent: elementary Spanish; intermediate Spanish or bilingual Spanish; intermediate conversational Spanish or bilingual oral Spanish; advanced conversational Spanish; and 12 units selected from 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.

Foreign Language Requirement. The foreign language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units selected from the courses listed below with not less than 12 units in one field and nine in two other fields. At least 33 units must be in courses having Latin American content: 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, 495, 498, 530, 531, 560, 575, 580; Anthropology 442, 582 (when relevant); Chicana and Chicano Studies 306, 310, 335, 340, 350A, 355, 375, 376, 380, 498; Comparative Literature 445; Economics 336, 360, 365, 464, 565, 592; Geography 323, 324; History 115, 116, 415, 416, 444, 550, 551, 552, 554, 555, 556, 558, 559; 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.

[^22]
## Courses (LATAM)

## LOWER DIVISION COURSE

## 101. Latin American Heritage (3)

Introduction to Latin American cultures and peoples from an interdisciplinary perspective.

## UPPER DIVISION COURSES (Intended for Undergraduates)

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.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 498. Seminar on Latin America (3)

Exploration of the interdisciplinary approach to Latin America including evaluation of relevant resources and methods. Taught by a team of instructors representing two or more disciplines.

## 499. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)
530. Civilization and Culture of Pre-Columbian America (3)

Prerequisite: Upper division standing.
Indigenous cultures of U.S./Mexico border region, Mexico, Central America from a multidisciplinary perspective. Geographical, religious, political, economic, and social realities.

## 531. Visual Representation of Latin American Culture

(3)

Prerequisite: Upper division standing.
Latin American civilization and culture from the Encounter to present. Visual expressions of culture including rituals, ceremonies and festivals, examined from a multi-disciplinary perspective.

## 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.
575. Art and Culture in the U.S./Mexico Border Region

Prerequisite: Upper division standing.
Settlement and culture along the U.S./Mexican border seen through a multi-disciplinary study of art, architecture, artists, and patronage.
576. Frida Kahlo and Her Circle: Mexican Artists and the Challenge of Modernity (3)
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.

## 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.

OFFICE: Liberal Studies Office (Student Services 1575) TELEPHONE: (619) 594-0597
WEB SITE and EMAIL: dus.sdsu.edu/liberalstudies

## Liberal Studies

In the Division of Undergraduate Studies

## Faculty

Coordinator: Roeder, P. (Division of Undergraduate Studies)
Allison (English), Bar-Lev (Linguistics), Colston (History), Dunn (History), Fisher (Biology), Goldberg (Physics), Griswold (English), McKerrow (Theatre, Television, and Film), Meyer (Linguistics), Sowder, L. (Mathematics), Webb (Linguistics)

Committee: Anderson, B. (Theatre, Television, and Film), Indermill (Liberal Studies Advising), McDonald (Music), Roeder, P. (Natural Science), Sowder, L. (Mathematics), Webb (Linguistics)

## Offered by the Division

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

## The Majors

The liberal studies blended teacher education major and traditional liberal studies major are designed solely for students who intend to teach at the elementary level. Both are four-year stand-alone majors, which may be completed independent of a credential program. The liberal studies blended teacher education major, however, may be completed as a part of the five-year liberal studies blended teacher education program, which integrates the undergraduate content courses with credential coursework. Details of the final year of this program are still being refined.

Both liberal studies majors are designed to satisfy the Senate Bill 2042 requirements for elementary subject matter programs approved by the California Commission on Teacher Credentialing in September 2001. Students completing the major, including a satisfactory assessment portfolio, do not have to satisfy subject matter competency by passing the California Subject Examinations for Teachers (CSET). Students in all other majors must pass this examination before being admitted to a multiple subject credential program in California. Liberal studies majors who ultimately choose not to enter the teaching profession find opportunities in a variety of careers.

The goal of the program is to provide an educational experience that prepares liberally educated individuals capable of thinking critically, writing clearly and effectively, analyzing evidence, and appreciating the difference in goals, processes, and evaluation of the major disciplines: literature, history, mathematics, science, visual and performing arts, and physical education. In addition, studies of human development help students understand the developmental stages of the children they will ultimately teach. Field experiences provide a context for observing, interviewing, and tutoring in elementary classrooms.

The liberal studies blended teacher education major includes a special core of freshmen-sophomore courses: Teaching as a Profession, Introduction to Literacy, and Child and Adolescent Development from a Cultural Perspective. The liberal studies major includes a more traditional core of courses: Introduction to Psychology, Developmental Psychology, and an additional history, philosophy, or religious studies course. The upper division requirements for both majors include 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, and child development.

Students in both majors complete a specialization, which consists of 12-units in a given discipline. In the new SB 2042 program, one course from the upper division major may be double counted in some specializations. 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. Careful choice of courses for certain specializations can lead to a supplementary authorization in a specific subject area if the student desires to teach at the middle school level. Because Liberal Studies students automatically qualify for a supplementary authorization in English, they may be able to complete the major with supplementary authorizations in two subject areas.

The senior project for both liberal studies majors is the Liberal Studies Assessment Portfolio. Students are introduced to the portfolio during orientation, special workshops, and via the Web site. They buy the guidelines and contrast the disciplines when they take Liberal Studies 300 during their junior year. They begin organizing samples and writing their essays the semester before submission when they take the 0.5 unit Liberal Studies 498 course. Students are strongly encouraged to save both syllabi and written work (exams, projects, and other materials) from all their courses. Students should ask their professors to sign their work. The portfolio serves as the summative assessment for the major; it challenges students to synthesize and think reflectively about what they are learning.

Advising is extremely important because students must make numerous decisions that include choosing appropriate courses, shaping the specialization, preparing the assessment portfolio, and planning for the credential program. 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 Future Educators Center (ED-107; 619 594-6320).

## Requirements for Elementary Subject Matter (ESM) Certification

To qualify for admission into a credential program in California, a student must satisfy subject matter competency. In order to be certified, liberal studies students must complete all requirements, submit a satisfactory portfolio, AND earn a "C" or better in all but one of the courses in the upper division major including the specialization. Students may repeat a given requirement only two times; they may repeat at most three different requirements. When repeating a requirement to improve a grade, any course listed under the requirement may be taken; it is not necessary to repeat the same course.

## Deadline for Certification

Students in 2002-2003 and earlier catalogs must complete all requirements for ESM Certification by the end of summer semester 2008. Students who do not meet this deadline may 1) graduate without the ESM certification by satisfying the requirements in their original 2002-2003 or earlier catalog year or 2) graduate with the ESM certification by satisfying the requirements in the new 2003-2004 or later catalog in effect the year they graduate.

## Impacted Program

The liberal studies major is an impacted program. The traditional and blended liberal studies majors are impacted programs. Students must enter the University under the liberal studies blended teacher education premajor code (49080) or the liberal studies premajor code (49012). To be admitted to the liberal studies blended teacher education major (49081) or the traditional liberal studies major (49015), students must meet the following criteria:
a. Complete with a grade of 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 cannot be taken for credit/no credit (Cr/NC);
b. Clear the competency requirement in writing. Refer to Graduation Requirements section of this catalog for details;
c. Earn a passing score on the 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. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment);
g. To declare the liberal studies major, contact the liberal studies program via 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)

UPPER DIVISION COURSES (Intended for Undergraduates)

## 300. Introduction to Liberal Studies (3)

Prerequisites: Preparation for the major completed or to be completed concurrently. Completion of lower division Writing Competency and Entry-Level Mathematics requirements.

Introduction to ideas, structures, and values within and among the various disciplines in this interdisciplinary major. Exploration of issues of diversity in contemporary society through directed field experience and required readings. Individual qualitative evaluation process required by major included.

## 498. Assessment in Liberal Studies (0.5-1) Cr/NC

Prerequisites: Successful completion of two upper division semesters of liberal studies major; upper division major code.

Portfolio development 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.

## Liberal Studies Blended Teacher Education Major

With the B.A. Degree in Applied Arts and Sciences

## (Pre-major code: 49080) (Major code: 49081)

This major is designed for students:

- who choose their major early in their freshman year;
- who have the flexibility during daytime hours to allow classroom visits plus two 30-hour field experiences (coupled with Education 201 and Liberal Studies 300); and/or
- who enter SDSU as freshmen or transfer from a community college that offers the special courses required for the liberal studies blended teacher education major.
Students in this major who choose to seek a multiple subject credential may apply to any traditional, fifth-year credential program. However, they are encouraged to apply to the liberal studies blended teacher education credential program (see below), which integrates the undergraduate major with the multiple subject credential program. The liberal studies and College of Education Web sites contain current information and prerequisites for SDSU credential programs.

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 Blended Teacher Education major fulfills General Education requirements.

A minor is not required for this major.
Liberal Studies Foreign Language Requirement. Competency (successful completion at the second college semester or third college quarter level) is required in one foreign language as part of the preparation for the major. For course choices, refer to section of the catalog on "Graduation Requirements." Speech, Language, and Hearing Sciences 259 is allowed by petition only for those students who provide evidence that they intend to enroll in the deaf and hard of hearing specialist credential program.

Cultural Perspective Requirement. Preparation for the liberal studies blended teacher education major must include at least one course that approaches its subject from an ethnic perspective. Choose one of the courses indicated by a star (*).

Preparation for the Major. (59-59.5 units)

## Language and Literature

LANG-1. Three units selected from Africana Studies 140*, Chicana and Chicano Studies 111A*, Communication 103, or any certified oral communication (A1) transfer course.

LANG-2. Three units selected from Africana Studies 120*; Chicana and Chicano Studies 111B*; Linguistics 100; Rhetoric and Writing Studies 100, 101; or any certified written communication (A2) transfer course.

LANG-3. Three units selected from Africana Studies 200*, Chicana and Chicano Studies 200*, Linguistics 200, Philosophy 110, Rhetoric and Writing Studies 200, or any certified critical thinking (A3) transfer course.

LANG-4. Three units selected from Comparative Literature 270A, 270B; English 220.

## 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 (highly recommended for students seeking social science supplementary authorization).

HIST-4. Three units selected from History 100; Religious Studies 101.

## Mathematics

MATH-1. Mathematics 210.
MATH-2. Mathematics Education 212 (1-1.5 units). (Taken concurrently with Mathematics 210.)

MATH-3. Mathematics 211.

## Science

SCl-1. Three units selected from Geological Sciences 104 (earth science) or Natural Science 100 (physical science).

SCI-2. Biology 203 (4 units; includes laboratory).
Visual and Performing Arts
VPA-1. Three units selected from Art 157 or Theatre 120.
VPA-2. Three units selected from Music 102, or Dance 290 (2 units) plus Dance 100A-J (1 unit).

## Development, Health, and Physical Education

DHP-1. Exercise and Nutritional Sciences 241A (1 unit) and 241B (1 unit).

DHP-2 Health: A 1-unit health course will be required for subject matter certification; check with adviser.

## Blended Core

BL-1. Education 200.
BL-2. Education 201.
BL-3. General Studies 130.

BL-4. General Education Humanities: Complete a second semester level foreign language course (not American Sign Language) OR, if foreign language requirement has been completed (see Liberal Studies Foreign Language Requirement above), then complete a minimum of three units selected from a more advanced foreign language course, History 100, Religious Studies 101, or Philosophy 101 (may not use the course chosen for HIST-4).

## Liberal Studies Major (Traditional)

## With the B.A. Degree in Applied Arts and Sciences

## (Pre-major code: 49012) (Major Code: 49015)

This major is designed for students:

- who choose their major after their freshman year;
- who have limited time available during the day for field experience; and/or
- who transfer from a community college that does not offer the special courses required for the liberal studies blended teacher education major.
Students in this major who choose to seek a multiple subject credential must apply to a traditional, fifth-year credential program. They do not qualify for admission to the liberal studies blended teacher education credential program, which integrates the undergraduate major with the multiple subject credential program. The liberal studies and College of Education Web sites contain current information and prerequisites for the SDSU credential programs.

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 traditional Liberal Studies major fulfills General Education requirements.

A minor is not required for this major.
Liberal Studies Foreign Language Requirement. Competency (successful completion at the second college semester or third college quarter level) is required in one foreign language as part of the preparation for the major. For course choices, refer to section of the catalog on "Graduation Requirements." Speech, Language, and Hearing Sciences 259 is allowed by petition only for those students who provide evidence that they intend to enroll in the deaf and hard of hearing specialist credential program.

Preparation for the Major. (56-56.5 units; plus foreign language)

## Language and Literature

LANG-1. Three units selected from Africana Studies 140, Chicana and Chicano Studies 111A, Communication 103, or any certified oral communication (A1) transfer course.

LANG-2. Three units selected from Africana Studies 120; Chicana and Chicano Studies 111B; Linguistics 100; Rhetoric and Writing Studies 100, 101; or any certified written communication (A2) transfer course.

LANG-3. Three units selected from Africana Studies 200, Chicana and Chicano Studies 200, Linguistics 200, Philosophy 110, Rhetoric and Writing Studies 200, or any certified critical thinking (A3) transfer course.

LANG-4. Three units selected from Comparative Literature 270A, 270B; English 220.

## 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, Chicana and Chicano Studies 141B, History 110, Political Science 102 (highly recommended for students seeking social science supplementary authorization).

HIST-4. History 100.

## Mathematics

MATH-1. Mathematics 210.
MATH-2. Mathematics Education 212 (1-1.5 units). (Concurrently with Math 210 recommended.)

MATH-3. Mathematics 211.

## Science

SCl-1. Three units selected from Geological Sciences 104 (earth science) or Natural Science 100 (physical science).

SCI-2. Biology 203 (4 units; includes laboratory) recommended; Biology 100 and 100L.

## Visual and Performing Arts

VPA-1. Three units selected from Art 157 or Theatre 120.
VPA-2. Three units selected from Music 102 or Dance 290 (2 units) plus Dance 100A-J (1 unit).

## Development, Health, and Physical Education

DHP-1. Exercise and Nutritional Sciences 241A (1 unit) and 241B (1 unit).

DHP-2 Health: A 1-unit health course will be required for subject matter certification; check with adviser.

## Traditional Core

TR-1. Three units selected from Philosophy 101; Religious Studies 101.

TR-2. Psychology 101.
TR-3. Psychology 230.
TR-4. Complete a second semester-level foreign language course if the foreign language requirement has not been completed (see Liberal Studies Foreign Language Requirement above). American Sign Language may be used by petition only by students who provide evidence that they intend to enroll in the deaf and hard of hearing specialist credential.

## Upper Division Major Requirements for Both Majors

Upper Division Writing Requirement. English 306W, with a grade of C (2.0) or better.

Upper Division Major. (42.5 units)
Language and Literature
LANG-5. Linguistics 420.
LANG-6. Linguistics 452.
LANG-7. English 306W. (Passing with a C or better satisfies the upper division writing graduation 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).
MATH-5. Mathematics 313.

## Science

SCI-3. Natural Science 412A (physical science, if Geological Sciences 104 taken for SCI-1) or Natural Science 412D (earth science, if Natural Science 100 taken for SCI-1). (4 units).

SCI-4. Chemistry 308.

## 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, Dance 380B, Music 343, Theatre 310, or Theatre 315.

Option II: If Art 157 and Dance 290/100A-J, choose Art 387 or Dance 380B plus three additional units selected from Art 387, Dance 380B, Theatre 310, or Theatre 315.

Option III: If Theatre 120 and Music 102 lower division, choose Music 343, Theatre 310, or Theatre 315, plus Art 387.

Option IV: If Theatre 120 and Dance 290/100A-J lower division, choose Dance 380B, Theatre 310, or Theatre 315, plus Art 387.
Development, Health, and Physical Education
DHP-3. Three units selected from Child and Family Development 371 or Speech, Language, and Hearing Sciences 322.

## Nature of the Disciplines and Assessment

LS-1. Liberal Studies 300.
LS-2. Liberal Studies 498 (0.5 units) and satisfactory completion of the Liberal Studies Assessment Portfolio. (For additional information, see below.)

In order to graduate with the liberal studies major, every student must complete a satisfactory portfolio.

To qualify for admission into a credential program in California, a student must satisfy subject matter competency. In order to be certified, liberal studies students must complete all requirements, submit a satisfactory portfolio, AND earn a "C" or better in all but one of the courses in the upper division major including the specialization. Students may repeat a given requirement only two times; they may repeat at most three different requirements. When repeating a requirement to improve a grade, any course listed under the requirement may be taken; it is not necessary to repeat the same course.

## Specialization (9-12 units)

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: Comparative Literature 270A, 270B; or English 220.
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: Linguistics 420.
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 have passed the Spanish Diagnostic Placement Examination. Examination must be passed prior to enrollment in Spanish 281 and 381.)

Prerequisite: Spanish 281.
Foundations and Inquiry: Spanish 381 and 350.
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: Geography 106, HIST-2 course, HIST-3 course, History 100.

Foundations and Inquiry: History 413 (HIST-6 in major).
Breadth and Current Issues: Three units selected from History 410, 412.

California: Three units selected from History 444, 445.
Depth: Three units selected from Geography 321 or Political Science 320+ (not allowed after Political Science 102).

+ Must have Political Science 102 or 320 in order to qualify for the supplementary authorization in Social Science.


## 5. ETHNIC STUDIES

(12 upper division units required)
Prerequisites: Geography 106, HIST-2 course, HIST-3 course, History 100 or Religious Studies 101.

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.)
Prerequisite: Mathematics 210, 211; Mathematics Education 212; plus Mathematics 141 (if did not have the equivalent of precalculus in high school)

Foundations and Inquiry: Mathematics 313 (MATH-5 in major)
Calculus for Life Science: Mathematics 121.
Depth: Three units selected from Mathematics 302, 303.
Depth and Applications: Mathematics 413.

## 7. SCIENCE

(One additional upper division unit required.)
Prerequisites: Geological Sciences 104 or Natural Science 100; Biology 203 or Biology 100 and 100L.

Foundations and Inquiry: Natural Science 412A (SCI-3 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; Geology 301, 303; Oceanography 320; Physics 301.

Inquiry and Research on an Environmental Problem: Natural Science 412D (4 units).

## 8. ART

Prerequisite: Art 157.
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

(Three additional prerequisite units required.)
Prerequisites: Music 102, 110A, 115, 240.
Foundations and Inquiry: Music 343 (VPA-3 in major)
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: Theatre 120.
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

(12 upper division units required)
Prerequisites: Exercise and Nutritional Sciences 241A and 241B.
Foundations and Inquiry: Exercise and Nutritional Sciences 301+, $335+$.

Breadth and Current Issues: Exercise and Nutritional Sciences 348+++

Depth and Application: Exercise and Nutritional Sciences $347 \mathrm{~A}++, 347 \mathrm{~B}++, 398+$ (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: Psychology 101; General Studies 130 or Psychology 230.

Foundations and Inquiry: Child and Family Development 371 or Speech, Language, and Hearing Sciences 322 (DHP-3 in major).

Depth: Psychology 331.
Special Populations: Six 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.

## Linguistics

In the College of Arts and Letters

Faculty
Emeritus: Elgin, Frey, Johns, Seright
Chair: Kaplan
Professors: Bar-Lev, Choi, Donahue, Gawron, Higurashi, Kaplan, Robinson, Underhill
Associate Professors: Kitajima, Poole, Webb, Zhang
Assistant Professors: Csomay, Malouf, Samraj, 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. Teaching major in linguistics for single subject teaching credential in English.
Minor in linguistics.
Certificate in applied linguistics and English as a second language (ESL), 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.

OFFICE: Business Administration 327
TELEPHONE: (619) 594-5268
FAX: (619) 594-4877
WEB SITE: www-rohan.sdsu.edu/dept/linguist/lol.html

## Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

## Linguistics Major

## With the B.A. Degree in Liberal Arts and Sciences (Major Code: 15051)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in linguistics courses can apply to the degree.

Students majoring in linguistics must complete a minor in another field approved by the departmental adviser in linguistics. Recommended fields include anthropology, 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.

Foreign Language Requirement. Competency equivalent to that which is normally attained through three college semesters of a foreign language with a B (3.0) average, or the equivalent. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or Linguistics 305W or 396W or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units is required: at least 18 of these must be in Linguistics (and those 18 must include Linguistics 420 or 520 and 521 and 522); with the approval of the adviser, up to six units may be selected from related fields.

## Linguistics Major

## In preparation for the Single Subject Teaching Credential in English

## With the B.A. Degree in Liberal Arts and Sciences

 (Major Code: 15051)Preparation for the Major. Linguistics 101; Linguistics 100 or Rhetoric and Writing Studies 100; Linguistics 200 or Rhetoric and Writing Studies 200; Comparative Literature 270A or 270B or English 220; Humanities 140 or Theatre 120; three units selected from Communication 200, English 280, 281, Journalism 220, Theatre 115, and one of the following sequences: English 250A and 250B or English 260A and 260B. (24 units)

Foreign Language Requirement. Competency equivalent to that which is normally attained through three college semesters of a foreign language with a B (3.0) average, or the equivalent. Refer to section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Linguistics 305W or 396W or English 508W or Rhetoric and Writing Studies 500W with a grade of C (2.0) or better.

Major. A minimum of 39 upper division units to include Linguistics 420 or 520; Linguistics $521,522,550,551$; Linguistics 525 or 530 ; Linguistics 452 or 552; Comparative Literature 562 or Theatre 310 or 580;

English 533; Rhetoric and Writing Studies 509. Three units selected from Africana Studies 460, 461, 462, 463, 464; American Indian Studies 430; Chicana and Chicano Studies 335, 464; English 519, 520; Women's Studies 352. Three units selected from Communication 360, 371, 391, 407, 408, 491; English 541A, 541B, Philosophy 531;Theatre 460B. One course selected from the following area not covered at the lower division level: English 560A or 560B (for students who took English 250A and 250B); English 522, 523, 524, 525 (for students who took English 260A and 260B).

## Minor in Linguistics

The minor in linguistics consists of a minimum of 15 units, 12 of which must be upper division and at least 12 of which must be linguistics courses.

Required: Linguistics 101 or 420 or 520. Twelve units selected under the guidance of and with approval of the adviser from Linguistics 101, 242, 296, 354, 410, 420, 430, 452, 453, 496, 499, 520, 521, 522, $524,525,530,550,551,552,553,554,555,570,571,581,582,596$, and no more than one course from Anthropology 410, Chinese 352, Communication 530, French 561, 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 an advanced Certificate in Applied Linguistics and English as a Second Language (ESL). The basic certificate requires 15 units to include Linguistics 420 or 520 ; 452, 552, or 554; 524 or 551 ; 530 or 555; and 550. Under certain circumstances comparable courses taken at other institutions may count toward the certificate. Such courses must be evaluated and approved by the certificate adviser. In addition, there is a 15 -hour tutoring 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 Bulletin of the Graduate Division for information on the advanced certificate

## Courses (LING)

## LOWER DIVISION COURSES

## General

## 99. Writing for Graduate Students (3) (Offered only in Extension)

To assist graduate students, particularly those for whom English is a second language, in writing theses or other assigned papers for courses in their majors. Focus on students' writing needs, including writing style, mechanics, grammar, and other issues. Does not apply to undergraduate degrees or credentials. (Formerly numbered Linguistics 397.)

## 101. Introduction to Language (3)

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.

## 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.
242. Foreign Language Experiences (3)

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.

## 250. Directed Language Study (3) I, II

Prerequisite: Consent of instructor.
Directed independent study of a foreign language not offered at San Diego State University with aim of acquiring a developing competency in the language. May include speaking, listening, reading, writing, and grammar. May be repeated with approval of undergraduate adviser. Maximum credit six units.

## 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.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## English Composition for International Students

## 100. English Composition for International Students (3)

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements. (See Graduation Requirements section of catalog.) Proof of completion of prerequisites required: Copy of EPT or competency scores (including ISEPT) or verification of exemption; proof of Cr in Rhetoric and Writing Studies 92A or 92B or 97A or 97B, or notification from the Department of Rhetoric and Writing Studies.

Introduction to college-level written English; attention to English language/grammar needs of non-native speakers of English; grammatical and rhetorical techniques for effective writing, based in part on study of models of current American writing. Not open to students with credit in Africana Studies 120 or Chicana and Chicano Studies 111B or Rhetoric and Writing Studies 100 or higher-numbered composition course.

## 200. Advanced English for International Students (3)

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements; and Linguistics 100. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

Further practice in mastering conventions of standard academic writing, with emphasis on strategies for research in writing papers. Focus on language issues specific to non-native speakers of English. Not open to students with credit in Africana Studies 200, Chicana and Chicano Studies 200, or Rhetoric and Writing Studies 200.

## UPPER DIVISION COURSES (Intended for Undergraduates)

## 305W. Advanced Composition for International Students (3)

Prerequisites: Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Communication 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 competently with written English on advanced university levels.
354. Language and Computers
(3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Computers, computer programming languages, and "artificial intelligence" viewed from perspective of human language.

## 396W. Writing Proficiency (1)

Prerequisite: Consent of instructor. Limited to linguistics majors Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Communication 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.

## 410. History of English (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities

The history of English and its present day use.
420. Linguistics and English
(3)

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.

## 430. English Grammar for Prospective Teachers (3)

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.
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.

## 453. Language Issues in the Secondary School (3) <br> (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.
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).

## 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.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)
520. Fundamentals of Linguistics (3)

Prerequisite: Upper division standing.
Principles of modern linguistics, with attention to English grammar (syntax, morphology, phonology). Language change, dialects, sociolinguistics, psycholinguistics, language acquisition.

## 521. Phonology (3)

Prerequisite: Linguistics 420 or 520.
Introduction to the theoretical principles of transformationalgenerative phonology.

## 522. Syntax (3)

Prerequisite: Linguistics 420 or 520.
Introduction to the theoretical principles of transformational-generative syntax.
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.
525. Semantics and Pragmatics (3)

Prerequisite: Linguistics 420 or 520 .
Advanced semantic theory; systematic analysis of the interaction of sequences of language with real world context in which they are used.

## 530. English Grammar (3)

Prerequisite: Six upper division units in linguistics.
English morphology, syntax, and discourse structure, including simple and complex sentence structure; lexical categories and subcategories; discourse functions of selected constructions. Problems and solutions in teaching English grammar.
550. Theory and Practice of English as a Second Language (3) Prerequisite: Linguistics 420 or 520 .
The nature of language learning; evaluation of techniques and materials for the teaching of English as a second language.
551. Sociolinguistics (3)

Prerequisite: A course in introductory linguistics.
Investigation of the correlation of social structure and linguistic behavior.

## 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.

## 553. Bilingualism (3)

Prerequisite: Linguistics 420 or 520 or Communicative Disorders 300.

Bilingual societies; language choice by bilinguals; bilingual language acquisition; effects of bilingualism on language structure and use.
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.

## 555. Practical Issues in Teaching English as a Second Language (3)

Prerequisite: 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.

## 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.

## 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.

## 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.

## 582. Computational Syntax and Semantics <br> (3)

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.

## 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 Bulletin of the Graduate Division.

# Management 

In the College of Business Administration

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, Mitton, Pierson, Robbins, Srbich, Wright
Chair: Hampton
Professors: De Noble, Fatemi (IVC), Hampton, Hergert, Marino
Associate Professors: Dunn, Ehrlich, Jung, Rhyne, Singh
Assistant Professors: Chung-Herrera, Dean, Rodriguez, Ryan, West (IVC)
Lecturers: Cornforth, Glazer, Williams, Jr.

## 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.

## 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 is concerned that each individual upper division student makes reasonable academic progress toward earning a degree. To this end, the College will counsel students who have earned less than a "C" (2.0) average each semester. Further, such students will be warned that continued poor performance may result in their removal from any business major.

## Transfer Credit

Lower Division: Courses clearly equivalent in scope and content to San Diego State University courses required for minors or as preparation for all business majors will be accepted from regionally accredited United States institutions and from foreign institutions recognized by San Diego State University and the College of Business Administration.

Upper Division: It is the policy of the San Diego State University College of Business Administration to accept upper division transfer credits where (a) the course content, requirements, and level are equivalent to San Diego State University courses and (b) where the course was taught in an 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. Students must apply to enter the University under the business administration premajor code (05011). To be admitted to the upper division management major, students must meet the following criteria:
a. Complete with a grade of C or higher: Accountancy 201 and 202; Finance 240 (formerly 140); Information and Decision Systems 180 and 290; 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. Clear the lower division competency requirement in writing. Refer to Graduation Requirements section of this catalog for details;
c. Complete a minimum of 60 transferable semester units;
d. Have a cumulative and SDSU GPA of 2.90;
e. 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;
f. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment)
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).

## 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.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. Thirty-six upper division units consisting of Management 350, 352, 356, 401, 451, 454; 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 307, 371, 406, 407; Geography 353; History 480; Natural Science 333; Philosophy 329, 333; Political Science 346; Psychology 321, 340; Social Work 350; Sociology 355, 401, 410, 430, 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. A maximum of six lower division units in principles of accounting courses may be used to satisfy degree requirements.

## 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 SDSU lower division writing competency requirement; 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

(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.

## Courses (mat)

## LOWER DIVISION COURSE

## 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 <br> (Intended for Undergraduates)

350. Management and Organizational Behavior (3) I, II

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration. Proof of completion of prerequisite required: Change of major form or other evidence of acceptable major code.

Human behavior at individual, interpersonal, and group levels including effect of organization structure on behavior. Emphasis on managerial roles, historical evolution of management, ethics, and behavior in multicultural contexts.
352. Human Resource Management (3) I, II

Prerequisite: Management 350. Recommended: Information and Decision Systems 301.

The employment relationship. Functions and techniques; role of government, unions, behavior, and environmental variables in human resource management.

## 356. Social and Ethical Issues in Business (3) I, II

Prerequisite: Management 350.
Ethics of various issues in business, including social responsibility, environmental protection, privacy, individual rights, occupational safety and health, product liability, equality of opportunity, and the morality of capitalism.
357. Multinational Business and Comparative Management (3) Prerequisite: Management 350.
Context of international business, environment, institutions, and business practices. Cultural awareness, sensitivity, interpersonal, and leadership skills needed in an international context.

## 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.
405. International Business Strategy and Integration (3) I, II

Prerequisites: Management 350, Finance 323, Information and Decision Systems 301 or 302, Marketing 370. Proof of completion of prerequisites required: Copy of transcript.

Integration of business administration principles and concepts for strategy design, implementation, and control in domestic, international, and global markets. Establishment of top management policy emphasized through case studies, experiential exercises, and simulations.

## 450. Venture Management (3) I, II

Prerequisites: Management 350, Finance 323, Information and Decision Systems 301 or 302, Marketing 370. Proof of completion of prerequisites required: Copy of transcript.

Process of initiating, expanding, purchasing, and consolidating businesses. Concepts, theories, and techniques of managerial innovation and implementation.

## 451. Organization Design and Change <br> (3) I, II <br> 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.

## 454. Interpersonal Processes (3) I, II, S

Prerequisite: Management 350.
Conceptual study and experiential training in interpersonal skills of management; acquisition of personal, managerial, and entrepreneurial behavioral competencies.
456. Conceptual Foundations of Business (3) I, II

Prerequisite: Completion of General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Development and evolution of values and ideas characteristic of the business society: individualism, materialism, rationality, technology, and other major components of business ideology. Capitalism/ socialism debate. Majors in the College of Business Administration may not use this course to satisfy requirements for General Education.
457. Applications in Management (1-3) I, II

Prerequisite: Consent of instructor.
Developing specific skills in areas of management. See Class Schedule for specific content.

## 458. Management Decision Games (1-3) II

Prerequisites: Consent of instructor. Management 350, Finance 323, Information and Decision Systems 301 or 302, Marketing 370. Proof of completion of prerequisites required: Copy of transcript.

Integrated managerial decision making within a dynamic environment through the use of business games.

## 496. Selected Topics in Management (1-4)

Prerequisite: Consent of department chair.
Selected areas of concern in management; see Class Schedule for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.
498. Investigation and Report (1-3) I, II

Prerequisites: Senior standing and consent of instructor.
A comprehensive and original study of a problem connected with management under the direction of one or more members of the management staff. May be repeated with new content. Maximum credit six units.
499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.
UPPER DIVISION COURSE
(Also Acceptable for Advanced Degrees)

## 596. Advanced Topics in Management (3)

Prerequisite: Six upper division units in management.
Advanced special topics in management. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to Bulletin of the Graduate Division.

OFFICE: Student Services 3356
TELEPHONE: (619) 594-5317
FAX: (619) 594-3272

## A Member of the AACSB International-The Association to Advance

 Collegiate Schools of Business.
## Faculty

Emeritus: Akers, Apple, Barber, Darley, Haas, Hale, Lindgren, McFall, Settle, Vanier, Wotruba
Chair: Belch
Professors: Belch, Kartalija, Krentler, Saghafi, Sciglimpaglia, Stampfl, Tyagi
Associate Professor: Baker
Assistant Professors: Aistrich, Appleton-Knapp, Honea, Russell

## 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.

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.


## 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 is concerned that each individual upper division student makes reasonable academic progress toward earning a degree. To this end, the College will counsel students who have earned less than a " $C$ " (2.0) average each semester. Further, such students will be warned that continued poor performance may result in their removal from any business major.

## Transfer Credit

Lower Division: Courses clearly equivalent in scope and content to San Diego State University courses required for minors or as preparation for all business majors will be accepted from regionally accredited United States institutions and from foreign institutions recognized by San Diego State University and the College of Business Administration.

Upper Division: It is the policy of the San Diego State University College of Business Administration to accept upper division transfer credits where (a) the course content, requirements, and level are equivalent to San Diego State University courses and (b) where the course was taught in an 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. Students must apply to enter the University under the business administration premajor code (05011). To be admitted to the upper division marketing major, students must meet the following criteria:
a. Complete with a grade of C or higher: Accountancy 201 and 202; Finance 240 (formerly 140); Information and Decision Systems 180 and 290; 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. Clear the lower division competency requirement in writing. Refer to Graduation Requirements section of this catalog for details;
c. Complete a minimum of 60 transferable semester units;
d. Have a cumulative and SDSU GPA of 2.90;
e. 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;
f. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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).

## Marketing Major

## With the B.S. Degree in Business Administration <br> (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.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. 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, 470L, 479; 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, 476, 478. 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. A maximum of six lower division units in principles of accounting courses may be used to satisfy degree requirements.

## Specialization in Integrated Marketing Communications

Forty-seven to forty-eight upper division units consisting of Marketing 370, 371, 373, 470, 470L, 472, 478; 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, 500*, 560*; 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. A maximum of six lower division units in principles of accounting courses may be used to satisfy degree requirements.

Additional prerequisites waived for these courses.

## 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 13 units selected from Information and Decision Systems 301, Marketing 371, 372, 373, 376, 377, 470 and 470L, 472 and 478, 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 SDSU lower division writing competency requirement; 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)

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

## 370. Marketing (3) I, II

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration. Proof of completion of prerequisite required: Change of major form or other evidence of acceptable major code. Marketing majors must complete this course with a minimum grade of $C$ (2.0).

Function of marketing in the organization and in society. Topics include market analysis and consumer behavior, product planning, pricing, promotion, distribution, and international marketing.

## 371. Consumer and Buyer Behavior (4) I, II

Prerequisite: Marketing 370 with a minimum grade of $C$ (2.0). Proof of completion of prerequisite required: Copy of transcript.

Personal, social, and cultural factors that distinguish identifiable market segments and influence buyers' and consumers' responses to marketing programs.

## 372. Retail Marketing Methods (4) I, II

Prerequisite: Marketing 370 with a minimum grade of $C$ (2.0) Proof of completion of prerequisite required: Copy of transcript.

Retail store and direct retail marketing organization, site location, personnel, promotion, purchasing, merchandising, inventory, and control methods.

## 373. Marketing Communication and Promotion (4)

Prerequisite: Marketing 370 with a minimum grade of $C$ (2.0). Proof of completion of prerequisite required: Copy of transcript.

Communication and promotion theory; advertising, personal selling, media strategy and tactics, public relations, and publicity strategy, methods, measurement, and ethics.

## 376. Global Marketing Strategy (4) I, II

Prerequisite: Marketing 370 with a minimum grade of $C$ (2.0). Proof of completion of prerequisite required: Copy of transcript.

International marketing and trade principles; comparative economic and sociocultural systems; entry, counter-trading, transfer pricing, and promotion.

## 377. Selling Strategy and Practices (4) I, II

Prerequisite: Marketing 370 with a minimum grade of $C$ (2.0). Proof of completion of prerequisite required: Copy of transcript.

Selling strategy and practices as an integral part of the total marketing system, including territory management, consultative selling, negotiation, and system selling.

## 470. Marketing Research (4) I, II

Prerequisites: Completion of lower division courses in the major or minor. A minimum grade of C (2.0) in Information and Decision Systems 301 and Marketing 370. Proof of completion of prerequisites required: Copy of transcript. Concurrent registration in Marketing 470L.

Methods of information generation and interpretation for marketing decisions; research design, data sources and collection, analysis and reporting techniques.
470L. Marketing Research Laboratory (1) Cr/NC
Two hours of laboratory.
Prerequisites: Completion of lower division courses in the major or minor. A minimum grade of C (2.0) in Information and Decision Systems 301 and Marketing 370. Proof of completion of prerequisites required: Copy of transcript. Concurrent registration in Marketing 470.

Computer practicum. Use of SPSS computer programs for analysis of marketing research survey and experimental data.

## 472. Advertising and Promotion Management (3)

Prerequisites: Marketing 371 and 373; concurrent registration in Marketing 478. Proof of completion of prerequisites required: Copy of transcript.

Management of the advertising and promotion functions. Promotional planning, implementation, and evaluation.

## 473. Sales Management (4) I, II

Prerequisite: Marketing 370 with a minimum grade of $C$ (2.0). Proof of completion of prerequisite required: Copy of transcript.

Sales force organization, recruitment, selection, training, compensation, evaluation, and control; sales analysis, costs, budgets, and quotas; coordination with personal selling.

## 474. Business Marketing (4) I, II

Prerequisite: Marketing 370 with a minimum grade of $C$ (2.0). Proof of completion of prerequisite required: Copy of transcript.

Marketing practices and strategy designed for organizational customers; focuses on purchasing practices of organizational customers and development of marketing mixes for private, commercial, institutional, and governmental markets, both domestic and global.
475. Global Marketing Applications (4) I, II

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.
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.
478. Advertising and Promotion Management Project (1)

Two hours of activity.
Prerequisite: Concurrent registration in Marketing 472. Proof of completion of prerequisite required: Copy of transcript.

Advertising and sales promotion program development project; initial design, pretesting, implementation, and program evaluation.
479. Strategic Marketing Management (4) I, II

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.
496. Selected Topics in Marketing (1-4) I, II

Prerequisite: Consent of department chair.
Selected areas of concern in marketing. See Class Schedule for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.
498. Investigation and Report (1-3) I, II

Prerequisites: Senior standing and consent of instructor.
A comprehensive and original study of a problem connected with marketing under the direction of one or more members of the marketing staff. May be repeated with new content. Maximum credit six units.
499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## GRADUATE COURSES

Refer to Bulletin of the Graduate Division.

## Mathematics

## In the College of Sciences

## OFFICE: Geology/Mathematics/Computer Science 413 TELEPHONE: (619) 594-6191

## Faculty

Emeritus: Branstetter, Branca, Bray, Carlson, Deaton, Eagle, Eisemann, Fountain, Garrison, Gindler, Hager, Harvey, Hintzman, Ho, Holmes, Marcus, Marosz, McLeod, Nower, Riggs, Ross, Saltz, Short, Smith, Sowder, J., Springer, Thompson, Van de Wetering, Villone, Whitman, Willerding
Chair: Lesley
Professors: Castillo, Dunster, Elwin, Geveci, Greer, Grone, Hui, Lesley, Lutz, Mahaffy, Pierce, Salamon, Sowder, L.
Associate Professors: Bowers, Kirschvink, Lobato
Assistant Professors: Blomgren, Carretero, Greferath, Nickerson, O'Sullivan, Palacios, Smarandache
Lecturers: Brock, Cavanaugh, Gill, P., Menegus, Nelipovich, Rotar

## Offered by the Department of Mathematics and Statistics

Master of Arts degree in mathematics.
Master of Science degree in applied mathematics.
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 Bulletin of the Graduate Division).
Certificate in introductory mathematics.
Certificate in single subject mathematics.

## The Majors

Mathematics is the language and instrument for the sciences and technology. It is concerned with a wide range of diverse problems from developing techniques to model real world applications 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 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.

Majors will have a faculty member assigned as an adviser/mentor. The faculty member will be available to offer academic advice and assist the student in major course selection.

## 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. (23 units)

Recommended: Physics 195, 195L, 196, 196L, 197, 197L.
Foreign 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 this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 27 upper division units, selected with approval of the departmental adviser before starting upper division work, including Mathematics 337, 521A, 524, 534A, and one two-semester sequence selected from: Mathematics 521A-521B, 521A and Computer Science 562; Mathematics 337 and 531; 534A-534B; 534A and 535; 541 and 542; 541 and 543; Computer Science 310 and 320 or 520; Statistics 550 and 570 , Statistics 551A and 551B; and nine units of electives. Student must complete an outline for the major and file a copy signed by the adviser 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.

A minor is not required with this major.

## 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. (26 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include Mathematics 337, 521A, 524, 532, 534A, 534B, 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, 342A, 342B, 414, 509, and Statistics 357. Student must complete outline for major and file a copy signed by adviser 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. (32 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include Mathematics 336, 337, 521A, 524, 534A; 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. Student must complete outline for major and file a copy signed by adviser 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. (35 units) The student must complete these courses before being allowed to register for the upper division finance courses.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 39 upper division units to include Mathematics $337,524,531,544,562,580,581$, Statistics 551 A or 550 , and 551B or 570, Finance 323, 326 or Economics 490, Finance 327, 329 or 421. Student must complete outline for major and file a copy signed by adviser 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. (26 units) Some lower division courses will probably be prerequisite to science courses applied to the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 36 upper division units to include Mathematics 337, 524, 534A, 534B; at least six units selected from Mathematics

521A, 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. Student must complete outline for major and file a copy signed by adviser 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 in teacher education 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, Computer Science 107. (23 units)

Recommended: Physics 195, 195L, 196, 196L, 197, 197L. (12 units)
Foreign 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."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units in mathematics to include Mathematics 302, 414, 521A, 534A, Statistics 357; an upper division course in geometry; and six units of electives in mathematics approved by the credential adviser. Student must complete outline for major and file a copy signed by adviser with the Office of Advising and Evaluations.

## Single Subject Waiver Program in Mathematics

Students who wish to satisfy the requirements for the subject matter program in mathematics to prepare for a single subject teaching credential program in mathematics must complete the following requirements. (Students who have completed one or more courses in the program before January 1, 1995, should see the adviser since the earlier program is slightly different.)

To be admitted to the program, students must demonstrate competency in high school mathematics (algebra through trigonometry) by passing a mathematics placement test.

Subject Matter Waiver Program. A minimum of $45-46$ units to include Mathematics 150,151, 245, 252, 254, 302, 414, 521A, 534A, Statistics 357; one course selected from Mathematics 510, 511, 512; Computer Science 107 or 205; and six units of upper division electives selected with the approval of the adviser from physical and mathematical sciences. Students may substitute equivalent courses taken at this or other universities only with the approval of the single subject credential adviser. An approved calculus sequence of 12 units may be substituted for the 13-unit calculus sequence (Mathematics $150,151,252$ ), thus reducing the total unit requirement from 46 to 45 .

## Mathematics Minor

The minor in mathematics consists of a minimum of 20-22 units in mathematics to include 12 upper division units, at least six of which have as prerequisite Mathematics 151; or Mathematics 252 and nine upper division units in mathematics, at least six of which have as prerequisite Mathematics 151. The courses selected will be subject to the approval of the minor adviser.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

## Introductory Mathematics Certificate

The purpose of the Introductory Mathematics Certificate program is to provide individuals with appropriate mathematics coursework to qualify them to receive a supplementary authorization in introductory mathematics from the Commission on Teacher Credentialing. Admission is open to individuals who are majoring or have majored in an area other than mathematics and who have the equivalent of two years of high school mathematics and satisfy the Entry-Level Mathematics Examination. In order to enroll in the program, individuals should contact the supplementary mathematics credential adviser in the Department of Mathematics and Statistics.

The program consists of 20 units to include Mathematics 141, 150, 302, 312 (with departmental credential adviser permission), 313, and Statistics 357. The department also has other, state-approved programs for the supplementary authorization in mathematics (see departmental credential adviser).

Individuals must complete at least six units at San Diego State University and have a cumulative grade point average of 2.5 in the required courses to qualify for the certificate.

With the approval of the department, a student may apply no more than three units of coursework from the certificate program toward a major. Courses in the certificate may not be counted toward the minor.

## Single Subject Mathematics Certificate

The purpose of the Single Subject Mathematics Certificate program is to provide individuals with appropriate mathematics coursework to qualify them to receive a credential in single subject mathematics. Admission is open to individuals who are majoring or have majored in an area other than mathematics and who have the equivalent of two years of high school mathematics and satisfy the Entry-Level Mathematics Examination. In order to enroll in the program, individuals should contact the single subject mathematics credential adviser in the Department of Mathematics and Statistics.

The program consists of 46 units to include Computer Science 107, Mathematics 150 and 151; and 245, 252, 254, 302, 414, 510, 521A, 534A, Statistics 357, and six 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)

(Intermediate algebra is prerequisite to all mathematics courses.)

## 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.

## 118. Topics in Mathematics (3) I, II (CAN MATH 2)

Prerequisites: Satisfaction of Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA.

Topics selected from algebra, analysis, geometry, logic, probability, or statistics, designed to give student insight into structure of mathematical theories and their applications. Not open to students with credit in Mathematics 141 or higher numbered courses.
120. Calculus for Business Analysis (3) I, II, S (CAN MATH 34)

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA.

Matrix algebra. Calculus including differentiation and integration. Graphing and optimization. Exponential and logarithmic functions. Multivariable calculus.

## 121. Calculus for the Life Sciences I (3) I, II (CAN MATH 30)

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA.

Basic concepts of differential calculus with life science applications. Not intended for physical science or engineering majors. Not open to students with credit in Mathematics 150.

## 122. Calculus for the Life Sciences II (3) I, II

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.

## 141. Precalculus (3) I, II

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA. Proof of completion of Entry-Level Mathematics requirement required: Copy of ELM score or verification of exemption.

Real numbers, inequalities; polynomials; rational, trigonometric, exponential and logarithmic functions; conic sections. Not open to students with credit in Mathematics 104 and 140.

## 150. Calculus I (5) I, II, S (CAN MATH 18)

## ( 150 + 151: CAN MATH SEQ B)

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.

## 151. Calculus II (4) I, II, S (CAN MATH 20)

## ( 150 + 151: CAN MATH SEQ B)

Prerequisite: Mathematics 150 with minimum grade of $C$.
Techniques and applications of integration. Improper integrals. Differential equations. Infinite series. Conic sections. Curves in parametric form, polar coordinates.
210. Number Systems in Elementary Mathematics (3) 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.

## 211. Geometry in Elementary Mathematics (3) 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.

## 241. Mathematics Software Workshop (1)

Prerequisites: Computer Science 107 and Mathematics 151.
Introduction to mathematical software environment such as MAT-
LAB, MAPLE, MATHEMATICA OR TI-92. May be repeated for credit with different software. See Class Schedule for specific content. Maximum credit two units.

## 245. Discrete Mathematics (3) 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.

## 252. Calculus III (4) I, II, S (CAN MATH 22)

Prerequisite: Mathematics 151 with minimum grade of C .
Functions of several variables. Vectors. Partial derivatives and multiple integrals. Line integrals and Green's Theorem.
254. Introduction to Linear Algebra (3) I, II, S

Prerequisite: Mathematics 151.
Matrix algebra, Gaussian elimination, determinants, vector spaces, linear transformations, orthogonality, eigenvalues, and eigenvectors.
296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 299. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES (Intended for Undergraduates)

NOTE: Proof of completion of prerequisites required for all upper division courses: Copy of transcript.

## 302. Transition to Higher Mathematics (3) I, II <br> Prerequisite: Mathematics 150.

Selected topics in mathematics to emphasize proof writing and problem solving. Intended for those planning to teach secondary school mathematics.
303. History of Mathematics (3) 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.
311. Topics in Elementary Mathematics for Blended Program (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 in the blended program. Not open to students with credit in Mathematics 312.
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.

## 313. Topics from Elementary Mathematics II (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.
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.

## 337. Elementary Differential Equations <br> (3) I, II

Prerequisite: Mathematics 151.
Integration of first-order differential equations, initial and boundary value problems for second-order equations, series solutions and transform methods, regular singularities.

## 342A. Methods of Applied Mathematics I

(3) I

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.

## 342B. Methods of Applied Mathematics II <br> (3) II

Prerequisite: Mathematics 342A.
Second order ordinary differential equations, power series methods, Bessel functions, Legendre polynomials. Linear partial differential equations, separation of variables, Fourier series, Sturm-Liouville theory, orthogonal expansions, Fourier Transforms. Use of computer software packages for symbolic algebra and solution of differential equations. Not open to students with credit in Physics 340B.

## 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.
414. Mathematics Curriculum and Instruction (3)

Prerequisites: Senior standing and 12 upper division units in mathematics.

Historical development of mathematics and mathematics curriculum. Principles and procedures of mathematics instruction in secondary schools. For secondary and postsecondary teachers and teacher candidates. Course cannot be used as part of the major or minor in mathematical sciences with exception of major for the single subject teaching credential.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

NOTE: Proof of completion of prerequisites required for all upper division courses: Copy of transcript

## 509. Computers in Teaching Mathematics

Two lectures and three hours of laboratory.
Prerequisite: Mathematics 252.
Solving mathematical tasks using an appropriate computer interface, and problem-based curricula. Intended for those interested in mathematics teaching.

## 510. Introduction to the Foundations of Geometry (3) I, II

Prerequisite: Mathematics 122 or 151.
The foundations of Euclidean and hyperbolic geometries. Highly recommended for all prospective teachers of high school geometry.

## 511. Projective Geometry (3)

Prerequisite: Mathematics 254
Geometry emphasizing relationships between points, lines, and conics. Euclidean geometry and some non-Euclidean geometrics as special cases of projective geometry.

## 512. Non-Euclidean Geometry (3)

Prerequisite: Mathematics 122 or 151.
History of attempts to prove the fifth postulate; emphasis on plane synthetic hyperbolic geometry; brief treatment of other types of nonEuclidean geometry.

## 521A. Abstract Algebra (3) I, II

Prerequisites: Mathematics 245 and 252
Abstract algebra, including elementary number theory, groups, and rings.

## 521B. Abstract Algebra (3) II

Prerequisite: Mathematics 521A
Continuation of Mathematics 521A. Rings, ideals, quotient rings, unique factorization, noncommutative rings, fields, quotient fields, and algebraic extensions.

## 522. Number Theory (3)I

Prerequisites: Mathematics 245 and 252.
Theory of numbers to include congruences, Diophantine equations, and a study of prime numbers; cryptography.

## 523. Mathematical Logic (3)

Prerequisite: Mathematics 245.
Propositional logic and predicate calculus. Rules of proof and models. Completeness and the undecidability of arithmetic. Not open to students with credit in Philosophy 521.
524. Linear Algebra (3) I, II

Prerequisites: Mathematics 245 and 254; or 342A.
Vector spaces, linear transformations, orthogonality, eigenvalues and eigenvectors, normal forms for complex matrices, positive definite matrices and congruence.

## 525. Algebraic Coding Theory (3) I

Prerequisite: Mathematics 254
Linear codes, perfect and related codes, cyclic linear codes, BCH codes, burst error-correcting codes.

## 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.

## 532. Functions of a Complex Variable (3)

Prerequisite: Mathematics 252
Analytic functions, Cauchy-Riemann equations, theorem of Cauchy, Laurent series, calculus of residues, and applications.
533. Vector Calculus (3)

Prerequisite: Mathematics 254 or 342A
Scalar and vector fields; gradient, divergence, curl, line and surface integrals: Green's, Stokes' and divergence theorems. Green's identities. Applications to potential theory or fluid mechanics or electromagnetism

## 534A. Advanced Calculus I (3) I, II, S

Prerequisites: Mathematics 245 and 254; or 342A
Completeness of the real numbers and its consequences, sequences of real numbers, continuity, differentiability and integrabil ity of functions of one real variable.

## 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.
535. Introduction to Topology (3) I

Prerequisite: Mathematics 534A.
Topological spaces. Functions, mappings, and homeomorphisms. Connectivity, compactness. Metric spaces.
537. Ordinary Differential Equations (3)

Prerequisite: Mathematics 337.
Theory of ordinary differential equations: existence and uniqueness, dependence on initial conditions and parameters, linear systems, stability and asymptotic behavior, plane autonomous systems, series solutions at regular singular points

## 538. Dynamical Systems and Chaos <br> (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.

## 541. Introduction to Numerical Analysis and

 Computing (3) I, II, SPrerequisites: 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.

## 542. Introduction to Numerical Solutions of Differential Equations (3) II

Prerequisites: Mathematics 337 and 541
Initial and boundary value problems for ordinary differential equations. Partial differential equations. Iterative methods, finite difference methods, and the method of lines.

## 543. Numerical Matrix Analysis

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.

## 544. Computational Finance (3)

Prerequisites: Mathematics 531 and Statistics 550.
Numerical procedures for evaluating financial derivatives. Discretization of partial differential equations. Monte Carlo simulation techniques.

## 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.

## 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.

## 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.
580. Risk Management: Stocks and Derivative Securities

Prerequisite: Mathematics 337, Statistics 550, or 551A.
Theory of derivative securities with focus on evolution of stock prices and pricing of options.
581. Risk Management: Portfolio Selection and Other Features of Finance Markets (3)
Prerequisite: Mathematics 337, Statistics 550 or 551A, Mathematics 580.

Derivatives and term structures, method of principal components, theory of portfolio optimization, some numerical methods.

## 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

## Courses (mthed)

## LOWER DIVISION COURSE

 (Intended for Undergraduates)(Intermediate algebra is prerequisite to all mathematics 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.

## 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. For students in the liberal studies blended teacher preparation major.

## UPPER DIVISION COURSE

(Also Acceptable for Advanced Degrees)
502. Technology in Teaching and Learning Mathematics: Grades K-8 (3)
Prerequisites: Classified graduate standing; consent of instructor for undergraduates.

Research in use of technology in learning and teaching mathematics in grades K-8. Major focus devoted to use of applications. Other uses for technology addressed include simulations, communication, and calculational speed. (Formerly numbered Mathematics Education 602.)

## 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 Bulletin of the Graduate Division in the Mathematics and Science Education section. Undergraduate mathematics courses for the certificate program are listed below.

## Courses (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.

## 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.
384. Fostering Algebraic Thinking (1)

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.

## 385. Representing and Interpreting Data

One-half lecture and one hour of activity.
Prerequisites: Teaching credential and consent of instructor. Gathering, representing, and interpreting data sets.

## 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.
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.
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 Bulletin of the Graduate Division.

# Mechanical Engineering 

In the College of Engineering

OFFICE: Engineering 323L<br>TELEPHONE: (619) 594-6067<br>EMAIL: me@engineering.sdsu.edu

The undergraduate program in Mechanical Engineering is accredited by the Accreditation Board for Engineering and Technology, Inc.<br>\section*{Faculty}<br>Emeritus: Bauer, Bedore, Bilterman, Craig, Hoyt, Hussain, Lybarger, Mansfield, Morgan, Murphy, Ohnysty, Rao<br>Interim Chair: Katz<br>Professors: Bhattacharjee, Kline<br>Associate Professors: Burns, Olevsky<br>Assistant Professors: Impelluso, Lambert, May-Newman

## Offered by the Department

Doctor of Philosophy degree in engineering sciences/applied mechanics.
Master of Science degree in mechanical engineering.
Major in mechanical engineering with the B.S. degree.

## Transfer Credit

No credit will be given for upper division engineering coursework taken at an institution having an engineering program which has not been accredited by the Accreditation Board for Engineering and Technology, Inc., unless the student successfully completes the first 12 units of engineering work attempted at this university. At that time, and upon recommendation of the department, credit will be given for the unaccredited work.

## General Education

Students will complete a minimum of 50 units in General Education, to include a minimum of nine upper division units taken after attaining junior class standing. 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, III, and IV combined (Foundations, American Institutions, and Explorations).
I. Communication and Critical Thinking: 9 units

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)
II. Foundations: 29 units
A. Natural Sciences and Quantitative Reasoning (17 units):
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.
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.

## 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,

| FRESHMAN YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall Semester | Units | Spring Semester | Units |
| Chemistry 202, Gen. Chem. for Engrs. .... | 4 | Mathematics 151, Cal | 4 |
| ENGR 190, Graph. Comm. Virtual Reality | 2 | ENGR 195, Graph. Co | II |
| Mathematics 150, Calculus I ................. | 5 | Physics 195, Principle | 3 |
| General Education............................... | 6 | General Education | 9 |
|  | 17 |  | 18 |
| SOPHOMORE YEAR |  |  |  |
| Fall Semester | Units | Spring Semester | Units |
| Mathematics 252, Calculus III | 4 | Physics 197, Principle | 3 |
| EM 200, Statics | 3 | EE 203, Principles of | 3 |
| ME 260, Intro. to Engineering Materials | 3 | EM 220, Dynamics | 3 |
| ME 290, Computer Programming and Applications | 2 | ENGR 280, Methods of | 3 |
| Physics 196, Principles of Physics | 3 | ME 295, Simulation of | 2 |
| General Education | 3 | General Education | 3 |
|  | 18 |  | 17 |
| JUNIOR YEAR |  |  |  |
| Fall Semester | Units | Spring Semester | Units |
| CIV E 301, Intro. to Solid Mechanics ....... | 3 | EE 303, Electronics, In |  |
| ME 310, Engr. Design: Introduction ........ | 3 | Electrical Energy Co | 3 |
| ME 340, Materials and Design............... | 3 | EM 340, Fluid Mechan | 3 |
| ME 350, Thermodynamics ........ | 3 | ME 314, Engr. Design: | 3 |
| ME 390, Engr. Systems Laboratory ....... | 2 | ME 395, Engr. System | 2 |
| General Education ........................... | 3 | ME 450, Engr. Thermo | 3 |
|  |  | General Education | 3 |
|  | 17 |  | 17 |
| SENIOR YEAR |  |  |  |
| Fall Semester | Units | Spring Semester | Units |
| ME 470, Principles of Heat Transfer | 3 | ME 490B, Engr. Desig | 2 |
| ME 490A, Engr. Design: Project ..... | 2 | ME 510, Adv. Machine | 3 |
| ME 512, Simulation of Engr. Sys. ........... | 3 | ME 570, Thermal Syst | 3 |
| \#Professional Electives ............... | 3 | \#Professional Electives | 3 |
| General Education ..... | 3 | General Education .. | 3 |
| American Institutions ............................ | 3 | American Institutions | 3 |
|  | 17 |  | 17 |

\# Approved as part of the student's master plan.
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.

## Mechanical Engineering Major

With the B.S. Degree (Major Code: 09101)
NOTE: Refer to above 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 50 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 below as "professional electives" and may be selected
from available courses in controls, energy conversion, gas dynamics, heat transfer, machine design, materials, thermodynamics, vibrations, and other areas. The students' choice of elective courses must be made in consultation with their advisers and documented by the filing of an approved master plan during the second semester of their freshman year.

All mechanical engineering students are required to file a master plan. The purpose of the plan is to facilitate proper academic advice. The plan is to be filed after consultation with a faculty member of the department. Once filed, the plan must be reviewed each semester with the assigned adviser before advanced registration. Transfer students must comply with this requirement prior to enrollment in Mechanical Engineering 310.

Students must complete all upper division courses in the major within seven years prior to graduation. Students who will have completed any of those courses more than seven years before the projected date of graduation must contact the department chair for information about ways to certify knowledge of current course content.

Upper Division Writing Requirement. This requirement can be satisfied by passing the departmental screening examination, a part of Mechanical Engineering 310, or passing the University Writing Examination, or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

## Courses (ME)

## LOWER DIVISION COURSES

260. 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.
290. Computer Programming and Applications (2) $\mathrm{Cr} / \mathrm{NC} \mathrm{I}$

Six hours of laboratory.
Prerequisites: Engineering 190 and Mathematics 151. Recommended: Engineering 195.

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.

## 295. Simulation of Physical Systems $\quad$ (2) $\mathrm{Cr} / \mathrm{NC}$ II

Six hours of laboratory.
Prerequisites: Mechanical Engineering 290, Engineering 190, 195, 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

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES

 (Intended for Undergraduates)NOTE: Proof of completion of prerequisites required for all Mechanical Engineering 300-, 400-, and 500-level courses: Copy of transcript is acceptable as proof. In addition, Mechanical Engineering 390, 450, 490A, and 530 require evidence of concurrent registration in appropriate courses.

## 310. Engineering Design: Introduction (3) I, II

Two lectures and three hours of guided design activities.
Prerequisites: Mechanical Engineering majors-Africana Studies 200 or Linguistics 200 or Philosophy 110 or Rhetoric and Writing Studies 200 with a grade of C or better, Engineering 195 and Engineering Mechanics 220. To be eligible for the departmental upper division writing test in this class, students must have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Written Communication. Every mechanical engineering student must have a master plan on file before enrolling in Mechanical Engineering 310.

Professional approach to engineering design problems. Problem definition, information gathering, feasibility studies, analysis, final design and communication. Several design studies and projects are completed.

## 314. Engineering Design: Mechanical Components (3) I, II

Prerequisites: Mechanical Engineering 310 and Civil Engineering 301.

Application of mechanics, physical properties of materials, and solid mechanics to the design of machine elements. Student design projects.
340. Materials and Design (3) I, II

Prerequisite: Mechanical Engineering 260
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.

## 350. Thermodynamics <br> (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.
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.
390. Engineering Systems Laboratory (2) I, II

One lecture and three hours of laboratory.
Prerequisites: Rhetoric and Writing Studies 200 or Linguistics 200, Electrical Engineering 203, Engineering 280, all with a grade of C or better; and credit or concurrent registration in Civil Engineering 301.

Engineering experimentation. Instrumentation theory, data analysis, technical communication and experiment design. Principles taught in lecture and applied experiments selected from subdisciplines of mechanical engineering. Focus includes vibration measurement analysis, electronics and digital Programmable Logic Control (PLC).

## 395. Engineering Systems Laboratory (2) I, II

One lecture and three hours of laboratory.
Prerequisites: Mechanical Engineering 350 and 390.
Advanced experiment design, data acquisition theory and data analysis. Experience in designing, conducting and reporting on experiments to acquire knowledge about engineering systems. Projects include heat transfer and experiments in thermodynamics, material testing and heat treatment.

## 450. 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 gasvapor. Air-conditioning. Combustion and chemical equilibrium. Design of engineering systems and processes.

## 470. Principles of Heat Transfer (3) I, II

Prerequisites: Engineering 280, Engineering Mechanics 340, and Mechanical Engineering 350.

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.
490A-490B. Engineering Design: Senior Project (2-2) I, II
Six hours of guided design activities.
Prerequisites for 490A: Mechanical Engineering 470, 512, and Electrical Engineering 303. Biology students enrolling in this course must have completed Biology 366, Chemistry 365, Civil Engineering 301, Electrical Engineering 303, Mechanical Engineering 352, and have credit or concurrent registration in Biology 590.

Prerequisites for 490B: Mechanical Engineering 490A, and Mechanical Engineering 450 or 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.
496. Advanced Mechanical Engineering Topics (1-3) I, II

Prerequisite: Consent of instructor. Proof of completion of prerequisite required: Copy of transcript.

Modern developments in mechanical engineering. See Class Schedule for specific content. Maximum credit six units for any combination of Mechanical Engineering 496, 499 and 596.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor. Proof of completion of prerequisite required: Copy of transcript.

Individual study. Maximum credit six units for any combination of Mechanical Engineering 496, 499 and 596.

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

NOTE: Proof of Completion of prerequisites required for all Mechanical Engineering 300-, 400-, and 500-level courses: Copy of transcript. In addition, Mechanical Engineering 390, 450, 490A, and 530 require evidence of concurrent registration in appropriate courses.

## 510. Advanced Machine Design (3) I, II

Prerequisites: Mechanical Engineering 314 and 340.
Application of advanced mechanics of materials to the design and analysis of mechanical elements. Introduction to probabilistic design and to finite element methods and applications. Design projects involve extensive use of finite element programs.
512. Simulation of Engineering Systems (3) I, II

Prerequisites: Mechanical Engineering 290, 314, 350; Engineering Mechanics 340; Engineering 280; C programming language.

Modeling, simulation, analysis, and design of mechanical engineering dynamic, vibration, electromechanical, heat transfer, thermodynamic, fluid mechanics, and control systems.

## 520. Introduction to Mechanical Vibrations (3)

Prerequisites: Mechanical Engineering 512 and Civil Engineering 301.

Analysis of mechanical vibration; single- and multi-degree of freedom systems; free and forced vibrations; vibration isolation; vibration absorbers. Theory of vibration measuring instruments.

## 530. Automatic Control Systems

(3)

Prerequisites: Engineering 280 with a grade of $C$ or better, and credit or concurrent registration in Mechanical Engineering 512.

Analysis of the dynamic characteristics of control components and systems. Stability and response of closed loop systems. Design of control systems.

## 540. Nonmetallic Materials (3)

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.
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.
546. Computer Aided Manufacturing (3)

Prerequisites: Mechanical Engineering 314, 340; Engineering 280 with a grade of C or better; and Engineering 195.

Computer controlled manufacturing and assembly techniques and devices. Databases and special languages. Agile manufacturing soft ware programs and technologies.

## 570. Thermal Systems Analysis and Design (3)

Prerequisites: Mechanical Engineering 450 and 470.
Analysis, design, and optimization of thermal systems using microcomputers. Modeling of thermal systems and components. Thermal system component characteristics and their effect on overall system performance. Relationship among thermal sciences in design process. Introduction to thermoeconomic optimization.

## 582. Heating, Ventilating, and Air-Conditioning (3)

Prerequisites: Mechanical Engineering 450 and 470.
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.
586. Solar Energy Conversion
(3)

Prerequisites: Engineering Mechanics 340, Mechanical Engineering 450 and 470.

Application of thermodynamics, fluid mechanics and heat transfer to the thermal design of solar energy conversion systems. Computer simulations utilized.
590. Biomechanics (3)

Prerequisites: Civil Engineering 301 and Engineering Mechanics 340.

Application of engineering methodologies for quantitative understanding of biological/physiological phenomena. Continuum mechanics principles. The cardiovascular system and its components viewed from a mechanistic standpoint.
596. Advanced Mechanical Engineering Topics (1-3) I, II

Prerequisite: Consent of instructor. Proof of completion of prerequisite required: Copy of transcript.

Modern developments in mechanical engineering. See Class Schedule for specific content. Maximum credit of six units for any combination of Mechanical Engineering 496, 499 and 596 applicable to a bachelor's degree. Maximum combined credit of six units of Mechanical Engineering 596 and 696 applicable to a 30-unit master's degree.

## GRADUATE COURSES

 Refer to Bulletin of the Graduate Division.
## Mexican American Studies

Refer to "Chicana and Chicano Studies" in this section of the catalog

# Military Science 

# In the College of Professional Studies and Fine Arts 

OFFICE: Exercise and Nutritional Sciences 451 TELEPHONE: (619) 594-4943

FAX: (619) 594-7084

## Faculty

Chair: Guzman
Professor: Guzman
Assistant Professors: Graef, Lovings, Macksam

## 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 401, 410, 499, and Sociology 499.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

## Courses (MIL s)

## LOWER DIVISION COURSES

96. Leadership Laboratory (1) I, II

Application of individual skills and military tasks appropriate to a small unit leader. Prepares cadets for higher level leadership positions. Emphasis is on performance in leader roles which includes instruction. Maximum credit two units. Credit earned in this course not applicable to a bachelor's degree.

## 100A-100B. Introduction to the US Army (2-2) I, II

Semester I: Structure, organization, and missions of the US Army. Preparation and development for officer status. Semester II: Officer leadership, development, and functions. Emphasizing command responsibilities for a basic foundation of military fundamentals.

## 210. Contemporary Military Leadership Theories: Individuals and Groups (2) I

Scientific approach to leadership theory and its applicability to military settings through study of human behavior and leadership models at individual and group levels using simulations, case studies, and diagnostic instruments.

## 211. Contemporary Military Leadership Theories: Organizations (2) II

Leadership at the organizational level with application to military settings with emphasis on developing leader skills and examination of theories and concepts of civil-military relations, using simulations, case studies, and diagnostic instruments.

## 221-S. Cadet Basic Field Training (3) <br> 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.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES (Intended for Undergraduates)

## 301. Skills of Military Leadership (3) I

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.

## 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.

## 401. American Military History (3)

Prerequisite: Senior level standing for Army ROTC students. Open to non-ROTC students with consent of instructor.

Military history from colonial times to present within framework of the nine principles of war, with focus on leadership, weapons, and tactics of US Army.

## 410. Senior Leadership Seminar (3) I, II

Prerequisites: Military Science 301 and 302.
Leadership and management problems encountered in a 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.

## 411. Contemporary Military Policy <br> (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.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
499. Special Study (1-3) I, II

Prerequisite: Consent of department chair.
Individual study. Maximum credit six units.

## Music

# In the College of Professional Studies and Fine Arts 

OFFICE: Music 112
TELEPHONE: (619) 594-6031
FAX: (619) 594-1692
EMAIL: music.dance@sdsu.edu

## Faculty

Emeritus: Anderson, Barra, Biggs, Blyth, Brown, Bruderer, Brunson, Estes, Forman, Genzlinger, Hill, Hogg, Lambert, Loomis, Meadows, Mitchell, Moe, Rost, Sheldon, Snider, Yates
Director: Chambers
Professors: Almond, Chambers, Dutton, Follingstad, Kolar, Liebowitz, Logan, O'Donnell, Peterman, Stauffer, Ward-Steinman, Yeager Associate Professor: McDonald
Assistant Professors: Delgado, Friedrichs, Helzer, Thompson, Waters Lecturers: Flood, Warman

Applied Music Instruction
Piano: Darby, Follingstad, Kolar
Harpsichord: Paul
Organ: Plimpton
Voice: Chambers, LaTour, MacKenzie, Nikkel, Tweed, Westbrook
Flute: Payne
Oboe: Reed
Clarinet: Liebowitz
Saxophone: Easton, Rekevics
Early Instruments: Peterman
Bassoon: Martchev
French Horn: Cable, Lorge
Trumpet: Price
Trombone: Fellinger, Reusch, Yeager
Baritone Horn: Dutton
Tuba: Dutton
Percussion: Flood, Shea
Violin: Constantino, Nykter
Viola: Campbell, Gerard
Cello: Stauffer
Contrabass: G. Biggs
Harp: Mashkovtseva
Classical Guitar: Benedetti, Romero, Svoboda, Wetzel
Composition: Dutton, Stauffer, Ward-Steinman, 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.

## 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. The B.A. in Music and the Elementary Music Minor student may, but are not required to have a 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.

## Music Major

## With the B.A. Degree in Liberal Arts and Sciences (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)

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 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 eight units of Music 251. (27-31 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)

## Foreign Language Requirement.

1. Vocalists-competency (equivalent to that which is normally attained in one semester of college study) in French, German, and Italian.
2. Jazz Studies - no foreign 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, or Italian (classical guitar students may substitute Spanish).
Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

## Major.

(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, 308A308B; 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, 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; eight units of Music 451; Music 497; two units of Music 507; and two units of upper division music electives. (42 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 additiona 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 selecting this minor are not required to audition on an instrument or voice. Students receive a strong multicultural component in Music 343 and 345.

Music (Classical). To be admitted to this area students must take a placement examination in comprehensive musicianship. Requirements include Music 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, 364A364B, 366, 466, 566A*, 566B*.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

[^23]
## Courses (music)

## LOWER DIVISION COURSES

## 101. Recitals (1) $\mathrm{Cr} / \mathrm{NC}$ I, II

Preparation for individual solo performances and attendance at a minimum of 12 concerts or recitals in accordance with music requirements. Maximum credit four units.

## 102. Basic Musicianship for Non-Music Majors (3) I, II <br> Two lectures and two hours of activity.

Rudimentary music theory involving the elements of music: melody, rhythm, and harmony. Developing the understanding of these elements through instrumental and vocal experiences which include the use of unison and part-singing, the keyboard, and simple melodic and harmonic instruments. Not open to students with credit in Music 105A.

## 104. Music Technology I (

Two hours of activity.
Current technology in music composition, ear-training, score preparation, performance and research practices. Open to music majors and minors only.

## 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. (Formerly numbered Music 105A.)

## 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.

## 106B. Introduction to Aural Skills II (1) Cr/NC

Three hours of activity.
Prerequisite: Music 106A.
Introduction to sight-singing and music dictation continued.
110A-110B. Piano - Elementary Class Instruction (1-1) I, II
Two hours.
Prerequisite: For 110B: Music 110A with a grade of C (2.0) or better.
Basic keyboard experience through study of music reading, notation, scales, chords, and sight-reading covering a repertoire of beginning and intermediate songs and piano literature, with emphasis on keyboard harmony. Required of music majors and minors and credential candidates for teaching at the kindergarten-primary level.
110C-110D. Piano - Elementary Class Instruction (1-1) I, II
Two hours.
Prerequisites: For 110C: Music 110B with a grade of C (2.0) or better. For 110D: Music 110C with a grade of C (2.0) or better.

Continuation of Music 110A-110B.
115. Voice - Elementary Class Instruction (1) I, II

Two hours.
Mastery of the fundamentals of voice. Not open to voice majors.

## 151. Introduction to Music (3) I, II

Practical approach to hearing music with understanding and pleasure, through study of representative compositions of various styles and performance media, great musicians and their art. Music correlated with other arts through lectures, recordings, concerts.
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.

## 166. Elements of Jazz I (2)

Fundamental harmonic analysis of basic jazz progressions, common modes and blues scale variations, solo transcription analysis, and ear-training

## Performance Organization Courses (Music 170 through 189)

The performance organization courses are devoted to the study in detail and the public performance of a wide range of representative literature for each type of ensemble and designed to provide students with practical experience in rehearsal techniques.
170. Chamber Music (1) I, II

Three hours. Four hours for opera.
Prerequisite: Consent of instructor.
Sections for string, woodwind, brass, piano, vocal, and mixed ensemble groups of three or more players. May be repeated with new content. See Class Schedule for specific content. Maximum credit four units.

## 174. Concert Band (1) II

Five hours.
Prerequisite: Consent of instructor.
Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

## 175. Marching Band (2)I

More than six hours.
Prerequisite: Consent of instructor.
Study and public performance of literature for the ensemble. Practical experience in rehearsal techniques. Maximum combined credit for Music 175 and 375 eight units.

## 176. Wind Symphony (1) I, II

Five hours.
Prerequisite: Consent of instructor.
Study and performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

## 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.

## 180. Symphony Orchestra (1) I, II

Five hours.
Prerequisite: Consent of instructor.
Maximum credit four units.
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.

## 185. Concert Choir (1) I, II

Five hours.
Prerequisite: Consent of instructor.
Maximum credit four units.
186. Chamber Singers (1) I, II

Five hours.
Prerequisite: Consent of instructor.
Study and public performance of representative literature for the ensemble. Practical experience in rehearsal technique. Maximum credit four units.

## 189. Jazz Ensemble (1) I, II

More than three hours.
Prerequisite: Consent of instructor.
Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

## 204. Music Technology II (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.

## 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.

## 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.

## 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.
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.

## 220. Strings - Elementary Class Instruction <br> (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.

## 225. Woodwinds - Elementary Class Instruction

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.
230. Brass - Elementary Class Instruction (1)

Two hours.
Fundamentals of brass instruments by lecture and acquisition of elementary skills.

## 235. Percussion - Elementary Class Instruction (1)

## Two hours.

Fundamentals of percussion through acquisition of elementary skill on the snare drum and by demonstration and lecture regarding all commonly used percussion instruments of definite and indefinite pitch.
240. Guitar - Elementary Class Instruction (1) I, II

Two hours.
Open to all students interested in fundamentals of guitar and elementary music skills.

## 246A. Practicum in Music Education I

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.

## 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.

## 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

H. Harp
B. Voice
C. Woodwinds
D. Brass
E. Percussion
I. Jazz Instruments
J. Medieval or Renaissance Instruments
F. Strings
K. Non-Western Instruments
G. Classical Guitar
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 musica compositions.
266. Elements of Jazz II (2)

Prerequisite: Music 166.
Harmonic analysis of standard and bebop repertoire, less common modes and dominant scales, solo transcription, analysis, and ear-training.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES

(Intended for Undergraduates)

## 301. Recitals (1) Cr/NC I, II

Preparation for individual solo performances and attendance at a minimum of 12 concerts or recitals in accordance with music requirements. Maximum credit four units.
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 two-voice motet and three part fugue. Instrumentation and choral reading. World Music Laboratory: South Indian rhythmic skills. Open to music majors and minors only.
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

## 308A. Music History: Medieval - Renaissance <br> (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.

## 308B. Music History: Baroque - Classic (2)

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.

## 343. Music Literature for Children <br> (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.

## 345. World Music in Contemporary Life (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Folk, ancient, and modern art music of world cultures, including traditional music of Africa, Asia, Latin America, the United States and Europe, as they relate to contemporary culture. Concert attendance required. Not open to music majors.

## 346. Practicum in Music Education III

(2) I

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

## 347. Conducting (1)

Prerequisite: Music 205B with a grade of C (2.0) or better.
Basic techniques of conducting. Baton technique, conducting pat-
terns, score reading, elements of performance and interpretation. Practical experience in typical conducting situations.

## 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.

## 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.
351. Great Music (3) I, II

Prerequisite for Music 351A-D: Completion of the General Education requirement in Foundations II.C., Humanities.

Significant music literature of the various historical periods with emphasis on the stylistic characteristics through directed listening. Not open to music majors.
A. Musical Masterpieces of the Eighteenth and Nineteenth Centuries
B. Musical Masterpieces of the Twentieth Century
D. Jazz History and Appreciation
360. Electro-Acoustic Music Composition II

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. (Formerly num bered Music 310.)

## 364A-364B. History of Jazz (2-2)

Jazz style and forms as they have evolved historically. Classroom playing experience in jazz styles as a part of study. Designed for music majors and minors.

## 366. Elements of Jazz III (2)

Prerequisite: Music 266
Post bop repertoire, altered modes and scales, solo transcription analysis, and ear-training.

## 367. Junior Recital (1) 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 (Music 369 through 389)

The performance group courses are devoted to the study in detail and the public performance of a wide range of representative literature for each type of ensemble, and designed to provide students with practical experience in rehearsal techniques.

## 369. Collegium Musicum (1) I, II

Prerequisite: Consent of instructor.
Performance of medieval and renaissance music on reproductions of historical instruments. May be repeated with new content. See Class Schedule for specific content. Maximum credit four units.

## 370. Chamber Music (1) I, II

Three hours. Four hours for opera.
Prerequisite: Consent of instructor.
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.

## 374. Concert Band (1) II

Five hours.
Prerequisite: Consent of instructor.
Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

## 375. Marching Band (2) I

More than six hours.
Prerequisite: Consent of instructor.
Study and public performance of representative literature for the ensemble. Practical experience in rehearsal technique. Maximum combined credit for Music 175 and 375 eight units.

## 376. Wind Symphony (1) I, II

Five hours per week.
Prerequisite: Consent of instructor.
Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

## 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.
380. Symphony Orchestra (1) I, II

Five hours.
Prerequisite: Consent of instructor.
Maximum credit four units.
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.
385. Concert Choir (1) I, II

Five hours.
Prerequisite: Consent of instructor.
Maximum credit four units.

## 386. Chamber Singers (1) I, II

Five hours.
Prerequisite: Consent of instructor.
Study and public performance of representative literature for the ensemble. Practical experience in rehearsal technique. Maximum credit four units.

## 389. Jazz Ensemble (1) I, II

More than three hours.
Prerequisite: Consent of instructor.
Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

## 397. Issues in Music Education (Credit to be arranged) (Offered only in Extension)

Prerequisites: Consent of instructor and bachelor's degree.
Study of specially selected issues in music education. Does not apply to undergraduate degrees or completion of teaching credential.

## 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.
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.
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.

## 408B. Music History: Jazz Survey and Improvisation

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.

## 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.

## 446. Practicum in Music Education IV <br> (2) II

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.

## 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

H. Harp
B. Voice
C. Woodwinds
D. Brass
E. Percussion
I. Jazz Instruments
J. Medieval or Renaissance Instruments
F. Strings
G. Classical Guitar
K. Non-Western Instruments
L. Composition
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.
466. Elements of Jazz IV (2)

Prerequisite: Music 366.
Atonal and aeromedical theories and philosophy, research paper, solo transcription, analysis, and ear-training.
496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 497. Senior Recital (2) 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.
499. Special Study (1-3) I, II

Prerequisite: Consent of the music director.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

## (Also Acceptable for Advanced Degrees)

507. Composition Laboratory
(1)

Three hours of laboratory
Prerequisites: Music 207 with a grade of $C$ (2.0) or better and consent of instructor.

Continuation of Music 207. Maximum credit two units.
515. Professional Orientation for Music Performers

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.

## 516. Performance Practice Forum <br> (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.

## 541. Performance Studies Pedagogy (3) <br> Two lectures and three hours of laboratory. <br> Prerequisite: Consent of instructor. <br> Teaching beginning and intermediate applied music. Survey and evaluation of teaching materials. Observation of individual or group lessons. <br> A. Piano <br> C. Voice

542. Performance Studies Laboratory (2)

One lecture and three hours of laboratory.
Prerequisites: For 542A: Music 541A with a grade of C (2.0) or beter. For 542C: Music 541C with a grade of C (2.0) or better.

Practical experience in the teaching of individual or group lessons
A. Piano
C. Voice
543. Diction (1)

Principles of pronunciation and enunciation. Application to song and opera in English, Italian, German, and French.
554. Music Literature (2) I, II

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)

## 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

## 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.

## 569. Advanced Collegium Musicum (1) I, II

Prerequisite: Music 369.
Preparation and performance of representative works by a specific medieval or renaissance composer on historical instruments May be repeated with new content. See Class Schedule for specific content. Maximum credit four units.

## 570. Advanced Chamber Music (1) I, II

Three hours.
Prerequisite: Consent of instructor.
Study and public performance of established repertory as well as new compositions. Sections for string, woodwind, brass, piano, 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

## 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.

## 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.
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.

## 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.

## 585. Concert Choir (1) I, II

Five hours.
Prerequisite: Consent of instructor.
Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

## 586. Chamber Singers (1) I, II

Five hours.
Prerequisite: Consent of instructor.
Study and public performance of representative literature for the ensemble. Practical experience in rehearsal technique. Maximum credit four units.

## 589. Jazz Ensemble (1) I, II

Three hours.
Prerequisite: Consent of instructor.
Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

## 590. Advanced Practicum in Music (3)

Prerequisite: Consent of instructor in area of practicum.
Students will be assigned to appropriate class sections within selected undergraduate area as instructional assistants under staff supervision.

## 592. Analogs in Music, Art, and Literature (3)

Prerequisite: At least one survey course in music history or appreciation, art history, or comparative literature.

Cross-influences and correspondences in the arts from the standpoints of style, texture, rhythm, and form.
596. Special Topics in Music (1-3)

A specialized study of selected topics from the several areas of music. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30 -unit master's degree.

GRADUATE COURSES Refer to Bulletin of the Graduate Division.

# Natural Science 

In the College of Sciences

## OFFICE: Physics 131 TELEPHONE: (619) 594-6240

## Faculty

Emeritus: Dessel, Dowler, Feher, May, Shull, Thompson, Wallace
Program Coordinator: Roeder, P.
Faculty: Fisher (Biology), Goldberg (Physics), Kimbrough (Geological
Sciences), Metzger (Chemistry), Riggs (Geological Sciences),
Roeder, S. (Physics), Roehrig (Chemistry)

## Offered by Natural Science

Teaching major in physical science for the single subject teaching credential in 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.

## Physical Science Major

## In preparation for the Single Subject Teaching Credential

 in Science/Physical Science
## With the B.S. Degree in Applied Arts and Sciences <br> (Major Code: 19011)

One of the requirements for acceptance into the College of Education's post-baccalaureate credential program is to either pass the appropriate PRAXIS and SSAT 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 with the Cross-Cultural, Language, and Academic Development (CLAD) emphasis 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, 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):

1. Physical Sciences ( 6 units) to be satisfied by Chemistry 200 and Physics 195.

2-3. Life Sciences and Laboratory (4 units) to be satisfied by Biology 201A.
4. Mathematics/Quantitative Reasoning (3 units) to be satisfied by Mathematics 150 .
B. Social and Behavioral Sciences (6 units). See Graduation Requirements section of the catalog.
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 201A, 201B; Chemistry 200, 201; Computer Engineering 160 or Computer Science 106 or 205; Geological Sciences 100, 101; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, 197L. (63 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 37 upper division units to include Biology 452; Oceanography 541; Physics 311, 340A-340B, 350, 354, 357, 360, 400A; three units selected from Natural Science 333 or Physics 301; and three units selected from Natural Science 315, 316, or Physics 400B, 406, 499.

## 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.

## Minor in History of Science and Technology

The minor in the history of science and technology consists of a minimum of 18 units to include Natural Science 315, 316, 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.

## Courses (N SCI)

## LOWER DIVISION COURSE

## 100. Physical Science <br> (3) I, II

Introduction to concepts and processes in science intended to show why science is essential to a liberal education by recognizing relationship with other areas of knowledge such as philosophy, literature, fine arts, economics. Emphasis varies with instructor.

## UPPER DIVISION COURSES

(Intended for Undergraduates)

## 315. History of Science I (3)

Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning, and one of the following courses: Humanities 101, History 100, 101, 105, 106. Recommended: Astronomy 101. General Education prerequisite not required for Physical Science majors.

The growth and development of science from antiquity to the fifteenth century. Emphasis on man's cognitive reactions to his environment through the coalescence of the occult arts, empirical practices and rational thought associated with early scientific theory.

## 316. History of Science II (3)

Prerequisites: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning, and one of the following courses: Humanities 101, History 100, 101, 105, 106. Recommended: Astronomy 101 and a course in chemistry. General Education prerequisite not required for Physical Science majors.

The major developments during the sixteenth through nineteenth centuries of the scientific revolution, the rise of empiricism, the emerging role of scientific societies. Histories of particular theories in both the life sciences and physical sciences.

## 317. Development of Scientific Thought (3)

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.
333. Technology and Human Values (3) II

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning. Recommended: Natural Science 100.

Technologies such as solar and fusion power, lasers, computer services, transport, synthetic food and their impact on values and lifestyles of developed countries. Characteristics of post-industrial society, future shock and biological revolution. Curve extrapolation and simulation by games and computer

## 412A-412C-412D. Processes and Inquiry in the Natural

 Sciences (4-4-4) I, IIThree lectures and two hours of activity.
Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Investigation of processes of inquiry and rational thinking skills characteristic of the sciences.
A. Physical Sciences
C. Life Sciences
D. Earth Sciences

## UPPER DIVISION COURSE

(Also Acceptable for Advanced Degrees)
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 Bulletin of the Graduate Division.

# 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: Simpson
Professor: Simpson
Associate Professor: Angelini
Assistant Professors: Belanger, Boccolucci, Brandon, Czaruk, Jordan, Lehmkuhler, Niswanger

## 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)

## LOWER DIVISION COURSES

## 101. Introduction to Naval Science (2) I

Structure, principles, and practices; lines of command and control; logistical organizations; functions and services of major components of the Navy and Marine Corps; shipboard organization; ethics and basic leadership skills.

## 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.

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.)

## 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 <br> (Intended for Undergraduates)

301. Navigation and Naval Operations I (3) I

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.

## 302. Navigation and Naval Operations II (3) II

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.

## 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.
401A. Naval Ships Systems II (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.)

## 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.

## 410. Amphibious Operations (3) I

Amphibious warfare, doctrinal origins, and its evolution as an element of naval policy during the twentieth century.

OFFICE: Hardy Tower 58<br>TELEPHONE: (619) 594-5357<br>FAX: (619) 594-2765

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: Dillon (Salerno), Flagg, Gulino, Hines, Laiho, LaMonica, Lantz, Leslie, Moffett, Morris, Riegel, Shively, Thomas, Verderber Director: Wahl
Associate Director: Freitas
Professors: Blenner, Heineken, Loveridge, Wahl, Walker, Wozniak
Associate Professors: Anderson, Broom, Fitzsimmons, Freitas, Hadley, Reed, Saarmann
Assistant Professors: Gilbert, McLeod, Rapps
Lecturers: Gaines, Hall, Hanscom, Jurf, Katzman, Lischke, Long, McCarthy, Miller, Ngo-Nguyen, Parr, Sweeney, Yancey

## Offered by the School

Master of Science degree in nursing.
Major in nursing with the B.S. degree in applied arts and sciences.
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. Students must enter the University under the nursing premajor code (12030). 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 collegelevel courses;
b. Complete with a minimum GPA of 2.50: organic chemistry (1 semester), introductory sociology, introductory psychology, oral communication, 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 (Cr/NC);
c. Clear the competency requirement in writing. Refer to Graduation Requirements section of this catalog for details;
d. Show evidence of volunteer and health care experience, bilingual ability, and leadership/achievement in school or community organizations;
e. For fall admission, submit the Nursing supplemental application by March 31;
f. For spring admission, submit the Nursing supplemental application by October 31;
g. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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, Psychology 101, Sociology 101, and oral communication.
b. Course grade requirement ( B - or better) in each of these required university courses: Biology 210 and 212.
2. Minimum Grade Point Average. Applicants must complete the seven prerequisite courses with a minimum overall grade point average of 2.5.
3. Writing Competency Requirement. Prior to admission to the School of Nursing, all students must demonstrate their writing competence. Students must present proof that they have been granted lower division writing competency by SDSU.
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 87 points can be earned in meeting the prerequisite courses, writing competency, recognition of outstanding achievement, health care experience and bilingual ability requirements, and applicants will be ranked in accordance
with points earned. Letters of reference will be required to verify specific achievements, leadership, participation and work experience. For specific additional point system allocation, consult the School of Nursing office.
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. This program gives credit for previous coursework and is designed with flexible class scheduling and innovative teaching strategies for the working nurse. Students eligible for this option should contact the School of Nursing office for special advising and program planning.
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. Consult the School of Nursing for the deadline date.

## Special Instructions

1. Impacted Program. The nursing major is designated as an impacted program and specific regulations related to admissions are imposed.
2. Full-Time/Part-Time Study. Students are encouraged to enroll in all of the nursing courses scheduled each semester. However, part-time enrollment can be arranged by contacting the undergraduate adviser within the school.
3. Liability Insurance and Transportation. Students enrolled in the nursing program are required to provide their own professional liability insurance and transportation to off-campus clinical agencies and for home visits.
4. Honors Program. The honors program is available to students in the senior level who meet the criteria. Four units of honors courses constitute the honors program and will be validated as such on the official transcript. Less than four units completed will not be validated as "honors," but may be credited as a special studies program.
5. Health Insurance. All students are advised to obtain health insurance coverage. Students are responsible for health care cost when services are rendered by a health care agency.
6. CPR Certification. Students are required to be certified prior to admission. American Heart Association (AHA) certification, health care provider course or American Red Cross (ARC) Professional Rescue is required. (Both Level C.)
7. Licensure. Students should request consultation with the undergraduate adviser regarding problems of license by endorsement with other states if the R.N. license examination is taken prior to degree completion.
8. Option Open to L.V.N.'s for eligibility to the R.N. license examination. THIS OPTION HAS NO RELATION TO DEGREE REQUIREMENTS AND DEGREE COMPLETION.

## Course Requirements

BIOL 210 Fundamentals of Microbiology .......................... 4
BIOL 261 Human Physiology ............................................ 4
NURS 254 Nurse-Client Relationships................................ 3
*\# NURS 308 Adult Health Nursing ........................................ 6
\# NURS 314 Gerontological Nursing ....................................... 3
*\# NURS 416 Psychiatric-Mental Health Nursing .................... 5
NURS 456 Clinical Pharmacology in Nursing Practice ........ 3
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

1. Oral Communication (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)
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 OR 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.

## Sequence of Courses in the Nursing Curriculum

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Semester | Units | Second Semester | Units |
| Biology 100. | 3 | Biology 210 ................................... | 4 |
| Chemistry 130 | 3 | Biology 212 | 4 |
| Sociology 101 | 3 | Psychology 101 ............................... | 3 |
| G.E. (Written Communication) | 3 | G.E. (Written Communication) ........... | 3 |
| G.E. (Oral Communication) .... | 3 | General Education .......................... | 3 |
|  | 15 |  | 17 |
| Second Year |  |  |  |
| First Semester | Units | Second Semester | Units |
| Biology $261 . .$. | 4 | Child \& Fam. Dev. 270 or Psych. 230 | 3 |
| Nursing 202 | 4 | Nursing 252 | 5 |
| Nursing 206 | 5 | Nursing 254 | 3 |
| General Education | 3 | American Institutions $\qquad$ <br> GE (Statistics) $\qquad$ | 3 |
|  | 16 |  | 17 |
| Third Year |  |  |  |
| First Semester | Units | Second Semester | Units |
| Psychology 351 | 3 | Nursing 307 | 3 |
| Nursing 308. | 6 | Nursing 354 | 5 |
| Nursing 314 | 3 | Nursing 356 | 5 |
| Nursing 456 | 3 | General Education | 3 |
|  | 15 |  | 16 |
| Fourth Year |  |  |  |
| First Semester | Units | Second Semester | Units |
| Nursing 414. | 6 | Nursing 458 | 5 |
| Nursing 416 | 5 | Nursing 460 | 2 |
| General Education | 6 | Nursing 452 or 454 <br> American Institutions | 5 3 |
|  | 17 |  | 15 |

## Nursing Major

## With the B.S. Degree in Applied Arts and Sciences

 (Premajor Code: 12030) (Major Code: 12031)All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.
Nursing majors are eligible to take the State Board Registered Nurse license examination after completing seven semesters of the prescribed curriculum. Graduates are eligible to apply for the California Certificate of Public Health Nursing.

Nursing majors may be part-time students in the curriculum. Consultation with the undergraduate adviser is mandatory.

Preparation for the Major. Upon acceptance into the program, Nursing 202, 206, 252, 254; three units in statistics should be selected from General Education requirements in Foundations II.A., Mathematics/Quantitative Reasoning; and three units in growth and development or Psychology 230. (23 units)

NOTE: A grade of C (2.0) or better is required in all nursing courses except Nursing 453 which, as an elective is exempt from this requirement. No nursing course may be repeated more than once. A grade of C (2.0) or better or Cr is required in corequisite courses. (Biology 261, Psychology 351, growth and development, and statistics).

Progress in the nursing program is dependent upon completion of nursing courses in the prescribed sequence as outlined above. Students will not be permitted to progress to the next semester until nursing courses are completed from the previous semester.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 48 upper division units in nursing to include Nursing 307, 308, 314, 354, 356, 414, 416, 456, 458, 460; and 452 or 454 .

## 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, Hardy Tower 58.

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 com-
munity 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)

| NURS 500 | Advanced Health Assessment and Health Promotion. | 4 |
| :---: | :---: | :---: |
| NURS 670 | School Nursing Management Practices | 3 |
| NURS 672 | Primary Health Care of the School-Aged Child | 3 |
| NURS 674 | Health Education for School Nurses | 3 |
| NURS 900 | Current Concepts in Community Health Nursing | 3 |
| NURS 901 | Family Health Theory and Nursing Practice . | 3 |
| NURS 902 | Primary Health Care of School-Aged Child Practicum | 3 |
| C DIS 540 | Hearing Conservation and Audiometry for School Nurses | 3 |
| SPED 500 | Human Exceptionality | 3 |
| Electives: | Three units to be selected with approval of a |  |

## Courses (nurs)

## LOWER DIVISION COURSES

## 101. Introduction to Nursing (3) $\mathrm{Cr} / \mathrm{NC}$

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.

## 202. Client Assessment (4)

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.
206. Nursing Practice I (5)

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.

## 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.

## 254. Nurse-Client Relationships: Cultural and Mental Health Concepts (3)

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 <br> (Intended for Undergraduates)

307. Nursing Research (3)

Prerequisites: Nursing 308, 314, 456; concurrent registration in Nursing 354 and 356.

Nursing research process. Emphasis on identification of researchable questions and beginning critiquing ability.

## 308. Adult Health Nursing (6) I, II

Three lectures and nine hours of laboratory.
Prerequisites: Nursing 252, 254; concurrent registration in Nursing 314 and 456.

Application of theories of stressors and/or biological responses specifically affecting the adult on the health-illness continuum. Laboratory focuses on the application of the nursing process in implementing preventive, supportive, and restorative therapeutic modalities which assist the adult client to reestablish, maintain, or develop new adaptive responses.
312. Concepts in Professional Nursing (3) I, II

Prerequisite: R.N., with Associate Degree or Diploma in nursing.
Concepts in professional nursing. Differentiation of professional practice with emphasis on stress theory, therapeutic communication, values clarification, and legal aspects. Not open to generic students.

## 314. Gerontological Nursing (3)

Two lectures and three hours of laboratory.
Prerequisites: Nursing 252, 254; concurrent registration in Nursing 308 and 456.

Theory and selected laboratory experience focusing on stressors affecting elderly on health-illness continuum. Gerontologic nursing in a variety of settings.

## 350. Women's Health Across the Lifespan (3)

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.

## 354. Nursing Care of the Childbearing Family <br> (5) I, II

Two lectures and nine hours of laboratory.
Prerequisites: Nursing 308, 314, 456; concurrent registration in Nursing 307 and 356

Family-centered focus encompassing adaptive and maladaptive responses to stressors in the maternity cycle and their effect on the neonate. Clinical laboratory focuses on the application of nursing theory and process in providing preventive, supportive and restorative care to mothers and neonates

## 356. Parent-Child Nursing (5) I, II

Two lectures and nine hours of laboratory.
Prerequisites: Nursing 308, 314, 456; concurrent registration in Nursing 307 and 354 .

Stressors affecting the child on health-illness continuum. Nursing theory and laboratory focuses on application of nursing process in providing preventive, supportive and restorative therapeutic modalities in a variety of settings. Emphasis on the child in the family and the necessary intervention to promote adaptation of the child to attain, maintain or regain an optimum level of health.

## 414. Community Health Nursing (6) I, II

Three lectures and nine hours of laboratory.
Prerequisites: Nursing 307, 354, 356; concurrent registration in Nursing 416

Assessment and utilization of community health care concepts and delivery with emphasis on promotion of health, prevention of illness and individual and group teaching techniques. Consideration given to cultural aspects of health care.

## 416. Psychiatric-Mental Health Nursing (5)

Three lectures and six hours of laboratory.
Prerequisites: Nursing 307, 354, 356; concurrent registration in Nursing 414.

Theory and clinical laboratory in application of nursing process to care of clients evidencing maladaptive responses to psychosocial stressors. Presentation of theories describing and explaining maladaptive behaviors and application of nursing interventions in a variety of treatment modalities.

## 452. Basic Concepts in Critical Care Nursing (5) I, II

Three lectures and six hours of laboratory.
Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 453, 458, and 460.

Theory and selected laboratory experience in care of clients with complex health problems requiring intensive nursing care. Consideration given to student's preference for specific clinical area of concentration.

## 453. Basic EKG Monitoring (1) I, II Cr/NC

Prerequisite recommended: Concurrent registration in Nursing 452.

Basic electrophysiological and interpretive concepts necessary for identification and management of supraventricular and ventricular rhythms.

## 454. Primary Health Care Nursing (5)

Three lectures and six hours of laboratory.
Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 458 and 460.

Theory and selected laboratory experiences in primary health care settings. Implementation of expanded role of professional nurse in primary care. Major primary care health problems. Health monitoring, continuity of care, epidemiological concepts, risk appraisal, health teaching, counseling, motivation.

## 456. Clinical Pharmacology in Nursing Practice (3) I, II

Prerequisites: Nursing 252, 254; concurrent registration in Nursing 308, 314.

Major classifications of drugs; pharmacological and toxicological activity; clinical applications. Role of nurse in assessment, intervention, and patient education.

## 458. Nursing Management and Leadership

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.

## 460. Professional Development (2)

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.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
498. Cooperative Education Supervised Practice (2-6) Cr/NC

Seminar: Two hours biweekly. Clinical hours arranged by student and employer.

Prerequisite: Nursing 308.
Supervised practice in application of previously learned knowledge and skills in selected clinical agencies. Professional interaction with other health care workers to strengthen professional nursing identity. Work under supervision of registered nurse preceptor and faculty coordinator. May be repeated. Maximum credit two units applicable to a bachelor's degree.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

## (Also Acceptable for Advanced Degrees)

## 500. Advanced Health Assessment and Health Promotion

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.
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 Bulletin of the Graduate Division.

## Nutrition

In the College of Professional Studies and Fine Arts

OFFICE: Exercise and Nutritional Sciences 351 TELEPHONE: (619) 594-5541

Didactic Program in Dietetics is accredited by the American Dietetic Association.

## Faculty

Emeritus: Boggs, Gunning, Josephson, Stout
Chair: LaMaster
Professor: Spindler
Associate Professors: Beshgetoor, Kern, Assistant Professor: Misra
Lecturers: Mosier, Robasciotti, Rupp, Schultz

## 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. Students must enter the University under the foods and nutrition premajor code (13060). To be admitted to the foods and nutrition major, students must meet the following criteria:
a. Complete with a grade of C or higher: Chemistry 100 and 130. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 45 transferable semester units to include Nutrition 101; Biology 100, 100L; Chemistry 100 and 130. Chemistry 100 and 130 cannot be in progress when changing from premajor to major status;
c. Have a cumulative GPA and SDSU GPA of 2.40 or higher;
d. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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).

## Foods and Nutrition Major

## With the B.S. Degree in Applied Arts and Sciences (Premajor Code: 13060) (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, 207; Accountancy 201; Biology 100, 100L, 210; Chemistry 100, 130, 160; Economics 201 (or Statistics 250); Psychology 101; Sociology 101. (45 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $\mathrm{C}(2.0)$ or better.

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, 491, 499, 510; Biology 321; Chemistry 361A, 361B, 567; Community Health Education 470; and Management 350 and 352 or Psychology 321. Biology 336 will also satisfy three units of the General Education requirement in Explorations IV.A. Natural Sciences.

## Courses (nutr)

## LOWER DIVISION COURSES

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.

## 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.

## 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.

## 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. (Formerly numbered Nutrition 206).
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.
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.
207. Data Processing in Foods and Nutrition (3) I, II

Two lectures and two hours of activity.
Prerequisite: Concurrent registration in Nutrition 204 or 205.
Computer application in food service management, diet planning, and analysis.

## 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)

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.
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.
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.

## 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.
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.

## 304. Nutrition Throughout the Life Span <br> (3) <br> 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.

## $\begin{array}{lll}\text { 309. Eating Disorders and Weight Control } & \text { (2) Cr/NC I, II }\end{array}$

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.

## 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.

## 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.
404. Food Systems Management (3) I, II

Prerequisites: Nutrition 303 and 303L.
Managerial functions in food service systems.
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.

## 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.
407. Medical Nutrition Therapy Laboratory (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.

## 488. Dietetic Practice II (1)

Prerequisites: Admission to SDSU Didactic Program in Dietetics, Nutrition 302, 303, 303L, 388, and consent of instructor.

Advanced practical experience in food service and medical nutrition therapy for future dietitians.

## 491. Research Literature in Foods and Nutrition (1)

Prerequisites: Nutrition 301, 302, 302L, and consent of instructor.
Current research topics in food science and nutrition.
496. Experimental Topics (1-4) I, II

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 499. Special Study (1-3) I, II, S

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

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

510. Nutrition and Community Health (3) I, II

Two lectures and three hours of activity.
Prerequisites: Grade of C or better in Nutrition 302, 302L, Nutrition 207, and consent of instructor.

Nutritional problems in the community with consideration of their resolution. Field placement experience required.

## 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 Bulletin of the Graduate Division.

OFFICE: Geology/Mathematics/Computer Science 604 TELEPHONE: (619) 594-5142<br>WEB SITE: www.geology.sdsu.edu

## Oceanography

## Administered by the Dean of the College of Sciences

San Diego State University provides preparation for ocean-oriented careers by offering marine-related coursework and oceanographic experience within regular degree programs in the Departments of Biology, Chemistry, Economics, Civil and 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 ; Oceanography 541 ; and three 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) <br> UPPER DIVISION COURSES (Intended for Undergraduates)

## 305. Scientific Scuba Diving (3)

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.

## 306. Scientific Scuba Diving for Certified Divers

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.

## 320. The Oceans (3) I, II

Prerequisites: One introductory college course in a life science and one in a physical science, and completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

The ocean system, its influence on life, climate, the earth, and humankind.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

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

541. Oceanography (3)

Prerequisites: Biology 201A, 201B; Mathematics 121 and 122 or 150; Physics 180A or 195.

Multidisciplinary examination of physical, chemical, biological and geological aspects of marine environment and relationship of humans with the sea.

## 561. Deep Sea Oceanography (3)

Prerequisites: Biology 515 and Chemistry 365.
Concepts of deep sea oceanography including abyssal biology, physics and chemistry, instruments and methods of deep sea research, biogeochemistry of oceanic ridges, and high-pressure biochemistry.

## For additional courses in Marine Studies see:

Biology 515. Marine Invertebrate Biology
Biology 517. Marine Ecology
Biology 519. Aquaculture
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

## Philosophy

## In the College of Arts and Letters

## Faculty

Emeritus: Friedman, McClurg, Nelson, O'Reilly, Shields,
Snyder, Troxell, Warren, Weissman

## Chair: Barbone

Professors: Corlett, Feenberg, Rosenstein, Weber, Weston
Associate Professors: Barbone, Chaffin, Francescotti, Moellendorf, Wheeler
Assistant Professor: Berteaux

## Offered by the Department

Master of Arts degree in philosophy.
Major in philosophy with the B.A. degree in liberal arts and sciences. Minor in philosophy.

## The Major

The philosophy major explores and seeks to understand values and the nature of reality. Through the study of philosophy, questions are asked about existence and experience: What is truth? What is morally right? What kind of life is best? What kind of society? Is there an ultimate reality? Philosophy studies the types of questions that most other subject areas are unable to address fully.

There are three different ways these questions are characteristically investigated in the philosophy major at San Diego State University. They are approached historically, by studying the history of philosophy from the ancient Greeks to the present; analytically, by carefully examining the meanings and interrelationships of ideas; and critically, by training students in the art of evaluating various claims and the arguments for and against them.

While the analytical and critical approach are part of every course in philosophy, the philosophy curriculum at San Diego State University emphasizes the historical approach. The aim is to provide the philosophy major with a thorough grounding in the development of philosophy so that the student is well prepared to participate in the discussion of contemporary issues.

The education of a philosophy major, along with providing the satisfaction of dealing with fundamental issues which have concerned serious thinkers for many centuries, also provides the student with skills that may be used in a variety of careers. Some students begin graduate work after their B.A., either in philosophy, with the expectation of teaching or writing in the field, or in law, education, or other professional programs. Some enter new fields of research, working on computer problems or artificial intelligence. Other students find that the special skills they have developed as philosophy majors - the ability to read complex material with comprehension, to analyze problems, to find relevant sources, to evaluate evidence, to propose solutions and to examine them self-critically, and to report the results of their inquiries with clarity and coherence - are valued by employers in many different fields. Such students may find career opportunities in government, industry, finance, and social services.

## Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

## Philosophy Major

## With the B.A. Degree in Liberal Arts and Sciences

 (Major Code: 15091)All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in philosophy courses can apply to the degree.

A minor is not required with this major.
Preparation for the Major. Six lower division units in philosophy to include Philosophy 110 or 120. Philosophy 120 is preferred as preparation for Philosophy 521.

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or one of the approved writing courses with a grade of $C$ (2.0) or better.

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 (PHLL)

## LOWER DIVISION COURSES

101. Introduction to Philosophy:Values (3) I, II (CAN PHIL 4)

Introduction to philosophical inquiry, with emphasis on problems of value. Students are encouraged to think independently and formulate their own tentative conclusions.

## 102. Introduction to Philosophy: Knowledge and Reality (3) I, II

Introduction to philosophical inquiry with emphasis on problems of knowledge and reality. Students are encouraged to think independently and formulate their own tentative conclusions.

## 103. Historical Introduction to Philosophy (3) I, II

Introduction to philosophical inquiry through study of the works of major philosophers in their historical contexts.

## 110. Critical Thinking and Composition (3)

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements and Africana Studies 120 or Chicana or Chicano Studies 111B or Linguistics 100 or Rhetoric and Writing Studies 100. Proof of completion of prerequisites required: Test scores or verification of exemption; grade report or copy of transcript.

Introduction to critical thinking and writing. Evaluation and development of correct reasoning and effective style and organization in argumentative writing. Correct deductive and inductive reasoning. Fallacies. Critical appraisal of evidence. Construction of rebuttals and counter-arguments.
120. Introduction to Logic
(3) 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.

## 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)

Students taking 300-level courses for the major will be required to do extra work to be arranged with the instructor.
305. Classics of Western Philosophy (3)

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities.

Analysis of major texts selected from diverse historical periods in western philosophy. Texts will illustrate different world views (e.g., Platonism, Stoicism, Skepticism) and their relationship to other disciplines and to present world views.

## 310. Philosophy and Human Nature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities

Concept of human nature. Descriptive and normative aspects of major theories of human nature.

## 329. Social Ethics (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Ethical issues of contemporary life. Individualism vs. collectivism; democracy vs. dictatorship; ethical problems arising in law, medicine, business, government and interpersonal relationships.
330. Medical Ethics

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Value judgments upon which medicine is based and the ethical issues which medicine faces.

## 332. Environmental Ethics (3)

Prerequisite: Completion of General Education requirement in Foundations II.C., Humanities.

Development of traditional values concerning the natural environment. Reasons for altering values in light of modern changes in relationship of human beings to the environment. Application of ethical principles to actions affecting the environment.
333. Philosophy of Technology (3)

Prerequisite: Completion of General Education requirement in Foundations II.C., Humanities.

Nature of technology. Ethical aspects of social, political, and environmental problems associated with rapid development of technology over the last century. Responses to these problems by contemporary philosophers.

## 334. Philosophy of Literature (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Study of literature of philosophical significance, and of philosophical problems of literature.

## 351. Chinese Philosophy (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities.

Philosophical traditions which have shaped the intellectual life and culture of China. Emphasis on foundational texts surviving from pre-Han China.
411. Ancient Western Philosophy (3) I

Prerequisite: Three units in philosophy.
Ancient western philosophy through the third century A.D.

## 412. Medieval and Renaissance Philosophy (3) II

Prerequisite: Three units in philosophy.
European philosophy from the fourth century through the sixteenth century.

## 413. Seventeenth and Eighteenth Century European Philosophy (3) I

Prerequisite: Three units in philosophy.
European philosophy in the seventeenth and eighteenth centuries.
414. Nineteenth Century European Philosophy (3) II

Prerequisite: Three units in philosophy.
European philosophy in the nineteenth century.
496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
499. Special Study (1-3) I, II

Prerequisites: Six upper division units in philosophy and prior arrangements with a supervising instructor.

Individual study. Maximum credit six units.

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

506. Twentieth Century Continental Philosophy (3)

Prerequisite: Six upper division units in philosophy.
Major figures and movements in European philosophy from Husserl to the present.
507. Twentieth Century Anglo-American Philosophy (3)

Prerequisite: Six upper division units in philosophy.
Major movements, issues, or figures of twentieth century AngloAmerican philosophy. Course may be repeated with new content. Maximum credit six units.

## 508. Existentialism (3)

Prerequisite: Six units in philosophy.
The philosophical aspects of existentialism. Major emphasis is on the diversity of thought within a common approach as this is shown in individual thinkers.

## 510. Philosophy of Law (3)

Prerequisites: Three units from Philosophy 101, 102, or 103; and three units from philosophy or political science.

Nature of law and logic of legal reasoning. Review of certain key legal concepts such as causation, responsibility, personality, and property.
512. Political Philosophy (3)

Prerequisite: Philosophy 101, 102 or 103.
Selected aspects of the political structures within which we live, such as law, power, sovereignty, justice, liberty, welfare.

## 521. Deductive Logic (3)

Prerequisite: Philosophy 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.

## 523. Theory of Knowledge (3)

Prerequisite: Six units in philosophy.
The major theories of human knowledge: mysticism, rationalism, empiricism, pragmatism.
525. Metaphysics (3)

Prerequisite: Six units in philosophy.
Prominent theories of reality, e.g., realism and nominalism, materialism and idealism, teleology and determinism.

## 528. Theory of Ethics (3)

Prerequisite: Six units in philosophy.
Significant and typical value theories and systems and the concrete problems such theories seek to explain. Emphasis will be on moral values.

## 531. Philosophy of Language (3)

Prerequisite: Six units in philosophy.
An introduction to theories of meaning for natural languages and formal systems; concepts of truth, synonymy and analyticity; related epistemological and ontological problems.

## 532. Philosophy of History (3)

Prerequisite: Six units of philosophy.
The nature of history and historical inquiry. As metaphysics: A study of theories of historical development. As methodology: History as science, truth and fact in history, historical objectivity, the purpose of history.
536. Philosophy of Mind (3)

Prerequisite: Three upper division units in philosophy.
Analysis of the concept of mind, intention, behavior, etc. Developments generated by works of such philosophers as Wittgenstein, Wisdom, and Ryle.

## 537. Philosophy of Science (3)

Prerequisite: Six units in philosophy.
The basic concepts and methods underlying contemporary scientific thought. Contributions of the special sciences to a view of the universe as a whole.

## 541. History of Aesthetics

(3)

Prerequisite: Philosophy 101, 102 or 103.
Major documents in the history of aesthetics.

## 542. Philosophy of Art (3)

Prerequisite: Six units in philosophy.
The nature of aesthetic experience. Principal contemporary theories of art in relation to actual artistic production and to the function of art in society.

## 543. Philosophy and Literary Theory (3)

Prerequisites: Three upper division units in philosophy and three upper division units in literature.

Relations between philosophy and literary discourse. Strategies of interpretation offered by major contemporary thinkers.

## 555. Philosophy of Technology (3)

Prerequisite: Six units in philosophy.
Philosophy of technology in leading thinkers such as Marx, Heidegger and Marcuse.
575. A Major Philosopher (3)

Prerequisite: Six upper division units in philosophy.
The writings of one major philosopher. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units applicable to the major. Maximum credit six units applicable to a master's degree.
596. Selected Topics (3)

Prerequisite: Six upper division units in philosophy.
A critical analysis of a major problem or movement in philosophy. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to the major in philosophy. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.
599. Special Study (1-3)

Prerequisite: Upper division or graduate standing and consent of instructor.

Directed individual study in philosophy on a theme or topic chosen in consultation with the instructor. Maximum credit six units. Maximum combined credit six units of Philosophy 599 and 798 applicable to the M.A. degree in Philosophy.

## GRADUATE COURSES

Refer to Bulletin of the Graduate Division.

## Physical Education

Refer to "Exercise and Nutritional Sciences" in this section of the catalog.

OFFICE: Physics 131
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## Faculty

Emeritus: Burnett, Cottrell, Day, Feher, Garrison, Lilly, Moe, Nichols, Piserchio, Shore, Smith, Teasdale, Templin, Wallace, Wolter

## Chair: Papin

Professors: Davis, Goldberg, Morris, Oseroff, Papin, Rehfuss, Roeder, Sweedler, Torikachvili
Assistant Professors: Anderson, Baljon, Johnson
Lecturers: Ferguson, Shackelford
Adjunct: Bendall, Mueller

## Offered by the Department

Master of Arts degree in physics.
Master of Science degree in physics.
Master of Science degree in radiological health physics.
Major in chemical physics with the B.S. degree in applied arts and sciences.
Major in physics with the B.A. degree in liberal arts and sciences.
Major in physics with the B.S. degree in applied arts and sciences.
Minor in physics.

## The Major

The study of physics is considered the 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.

## Chemical Physics Major

## With the B.S. Degree in Applied Arts and Sciences <br> (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. (44 units)

Recommended: A course in computer programming.
Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 48 upper division units to include Physics 311, 340A, 340B, 350, 354, 357, 400A-400B, 410; Chemistry 410A410B, 431, 457, 520A, 550.

## Physics Major

## With the B.A. Degree in Liberal Arts and Sciences <br> (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. (30 units)

Foreign 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 this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 33 upper division units to include Physics 311, 340A, 340B, 350, 354, 357, 360, 400A-400B, 410.

## Physics Major

## With the B.S. Degree in Applied Arts and Sciences (Major Code: 19021)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Individual master plans for each student are filed with both the physics undergraduate adviser and the Office of 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. (30 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 45 upper division units to include Physics $311,340 \mathrm{~A}, 340 \mathrm{~B}, 350,354,357,360,400 \mathrm{~A}-400 \mathrm{~B}, 410,498 \mathrm{~A}, 498 \mathrm{~B}$. 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.

## Physics Minor

The following courses are prerequisites to the physics minor and do not count toward the 16 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 16 units to include Physics 340A, 350, 354, 360, 400A.

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)

## LOWER DIVISION COURSES

Maximum credit 12 units for any combination of Physics 107, 170, 180A-180B, 182A-182B, 195, 195L, 196, 196L, 197, 197L, 201.

## 107. Introductory Physics with Laboratory (4) 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.

## 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.

## 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.

## 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.

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.
$\begin{array}{lll}\text { 195. Principles of Physics ( } & \text { (3) I, II }\end{array}$
( $195+195$ L: CAN PHYS 8)
$(195+195 L+196+196 L+197+197 L:$ CAN PHYS SEQ B)
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.

## 195L. Principles of Physics Laboratory (1) I, II ( $195+195 \mathrm{~L}$ : CAN PHYS 8) $(195+195 \mathrm{~L}+196+196 \mathrm{~L}+197$ +197L: CAN PHYS SEQ B)

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Physics 195.
Experiments in mechanics, wave motion, resonance phenomena using precision air tracks. Not open to students with credit in Physics 182A.
196. Principles of Physics (3) I, II
( 196 + 196L: CAN PHYS 12)
$(195+195 \mathrm{~L}+196+196 \mathrm{~L}+197$ +197L: CAN PHYS SEQ B)
Prerequisites: Physics 195 and Mathematics 151.
Fundamental principles of physics in areas of electricity and magnetism. Designed for students requiring calculus-based physics.

## 196L. Principles of Physics Laboratory (1) I, II (196 + 196L: CAN PHYS 12)

$(195+195 L+196+196 L+197+197 L$ : CAN PHYS SEQ B)
Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Physics 196.
Experiments in DC circuits, AC circuits, electrical resonance, oscilloscope measurement techniques, and electric and magnetic fields. Not open to students with credit in Physics 182B.

## 197. Principles of Physics (3) I, II <br> ( $197+197 \mathrm{~L}:$ CAN PHYS 14) <br> ( $195+195 \mathrm{~L}+196+196 \mathrm{~L}+197$ +197L: CAN PHYS SEQ B)

Prerequisites: Physics 196 and Mathematics 252.
Fundamental principles of physics in areas of wave motion, sound, electromagnetic waves, optics, relativity, and modern physics. Designed for students requiring calculus-based physics.

## 197L. Principles of Physics Laboratory (1) I,II <br> ( $197+197 \mathrm{~L}$ : CAN PHYS 14) <br> $(195+195 \mathrm{~L}+196+196 \mathrm{~L}+197$ +197L: CAN PHYS SEQ B)

Three hours of laboratory.
Prerequisite: Credit or concurrent registration in Physics 197.
Experiments in optics, lasers, holography, and nuclear counting.
201. Physics of Sound, Hearing, and Speech

Three lectures and three hours of laboratory.
Prerequisite: Qualification on the Mathematics Departmental Placement Examination, Part IA.

Fundamental nature of sound and applications to hearing and speech.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

## 301. Energy and the Environment (3)

Prerequisite: Completion of the General Education requirements in Communication and Critical Thinking and Foundations II.A., Natural Sciences and Quantitative Reasoning.

Fundamental physical concepts underlying energy, its conversion, and impact on the environment.

## 311. Electronics for Scientists (4)

Three lectures and three hours of laboratory.
Prerequisites: Physics 180B and 182B, or 196 and 196L.
$A C$ 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.

## 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.

## 340A-340B. Mathematical Methods in Physics (4-4)

Three lectures and three hours of laboratory.
Prerequisite: Physics 197. Physics 340A is prerequisite to 340B. Recommended: A course in computer programming.

Linear algebra, scalar and vector fields. Complex numbers and analytic functions. Fourier series and integral transforms. Ordinary and partial differential equations. Probability and group theory. Applications to physical theory employing analytical, numerical and computation techniques. Not open to students with credit in Mathematics 342A-342B.

## 350. Classical Mechanics (3)

Prerequisites: Physics 195 with a minimum grade of C and Physics 197. Credit or concurrent registration in Physics 340A.

Newtonian mechanics, gravitation, small oscillations, collisions, motion of rigid bodies, Lagrangian mechanics.
354. Modern Physics (3)

Prerequisites: Physics 197 with a minimum grade of C. Credit or concurrent registration in Physics 340A.

Special theory of relativity. Particle properties of electromagnetic radiation, and wave properties of particles. Introduction to quantum theory with applications to atomic structure. Not open to students with credit in Physics 354A or 354B.

## 357. Advanced Physical Measurements

One lecture and six hours of laboratory.
Prerequisites: Physics 311 and 354.
Stresses both laboratory experiments and techniques of data and error analysis. Experiments are taken from major areas of physics.

## 360. Thermal Physics (3)

Prerequisites: Physics 340A, 350, 354.
Classical thermodynamics and statistical mechanics. Applications of equilibrium thermodynamics. Statistical mechanics, including concepts from probability and statistics. Maxwell-Boltzmann, FermiDirac, and Bose-Einstein statistics. Applications of statistical mechanics in calculating macroscopic properties of simple systems. (Formerly numbered Physics 460.)

400A-400B. Classical Electromagnetism (3-3)
Prerequisites for Physics 400A: Physics 196 with a minimum grade of C; Physics 197 and 340A. Physics 400A is prerequisite to Physics 400B.

Electrostatics, magnetostatics, electromagnetic induction, Maxwell's equations, radiation and wave propagation.

## 406. Optics (3)

Prerequisites: Physics 197, 197L, 340B.
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.
410. Quantum Mechanics (3)

Prerequisites: Physics 340B, 350, 354.
Mathematical and physical foundations of quantum theory in terms of wave and matrix mechanics. Applications to properties of atoms and solids. (Formerly numbered Physics 510.)

## 496. Selected Topics in Physics (1-4)

Prerequisite: Consent of instructor.
Selected topics in classical and modern physics. May be repeated with consent of instructor. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

## 498A. Senior Research (1) Cr/NC

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.

## 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.

## 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 <br> (Also Acceptable for Advanced Degrees)

## 516. Theory of Scientific Instrumentation (3)

Prerequisites: Physics 311 and 340B.
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.

## 532. Condensed Matter Physics <br> (3)

Prerequisite: 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.
533. Experimental Techniques in Condensed Matter Physics

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.

## 534. Colloquium in Condensed Matter Physics (1) $\mathrm{Cr} / \mathrm{NC}$

Prerequisite: Credit or concurrent registration in Physics 532.
Student and faculty research project presentations. Maximum credit three units.

## 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.

## 553. Modern Optics Laboratory (3)

One lecture and six hours of laboratory.
Prerequisites: Physics 357 with minimum grade of C; Physics 406 with minimum grade of C ; credit or concurrent registration in Physics 552.

Experiments in various fields of modern optics such as holography, physics of lasers, Fourier transform spectroscopy, Raman spectroscopy, light modulation techniques, fiber optics, spatial filtering, diffraction grating spectroscopy, radiometry, and nonlinear optics.

## 554. Colloquium in Optics Research (1) $\mathrm{Cr} / \mathrm{NC}$

Prerequisites: Concurrent registration in Physics 498A or 498B or 797 and consent of instructor.

Student and faculty research project presentations. Maximum credit three units.
560. Radiological Physics and Dosimetry (3)

Prerequisite: Credit or concurrent registration in Physics 354.
Ionizing radiation fields, interactions of radiation with matter, cavity theory, external radiation dosimetry.
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.

## 564. Nuclear Physics (3)

Prerequisites: Physics 340B and 354.
Nuclear and elementary particle phenomena including nuclear structure, decay, and radioactivity. Nuclear reactions and devices. Experimental methods and applications.
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.
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.
585. Computer Simulation in Physical Sciences (3)

Prerequisites: Physics 340B, 350, and 360.
Complex physical systems such as solids, liquids, and macromolecules, by means of computer simulation. Prediction of experimentally measurable physical quantities. Mathematical models. Molecular dynamics and Monte Carlo methods. Interpretation of numerical results. Statistical errors.

## 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 Bulletin of the Graduate Division.

# Policy Studies in Language and Cross-Cultural Education 

OFFICE: Education 152
TELEPHONE: (619) 594-5155
FAX: (619) 594-1183

In the College of Education

Accredited by the California Commission on Teacher Credentialing.

## Faculty

Emeritus: Nuñez
Chair: Ochoa
Professors: Espinosa, Kuhlman, Ochoa, Pacheco, Young
Associate Professors: Jones, Tran
Assistant Professors: Alegria, Cadiero-Kaplan, Rodriguez, A., Rodriguez, J.
Lecturers: Alfaro, Sanz, Villanueva-Smith

## 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.
CLAD or 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.

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 www.csumentor.edu.

The following materials should be submitted as a complete package directly to the Policy Studies in Language and Cross-Cultural Education Department (department applications are available from the SDSU Bookstore).

1. Two sets of official transcripts in sealed envelopes from each issuing institution;
2. Complete department application (copy of scores for CBEST/ Spanish Proficiency Examination/MSAT or Portfolio, TB test results, letters of recommendation, early field experience, character and identification clearance, autobiography/goals and philosophy).
Mail or deliver your complete department admissions package to: Policy Studies in Language and

Cross-Cultural Education Department
San Diego State University
San Diego, CA 92182-1152

## 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 Test Office in SS-2549, (619) 594-5216. Call the PLC department for additional information on CBEST.
2. Major. The Liberal Studies major, Emphasis in Education, Foreign Language Specialization may be selected in preparation for the teaching credential. Students who have academic majors other than liberal studies are required to pass the commissionapproved PRAXIS, Multiple Subject Assessment for Teachers (MSAT). Candidates are urged to take this examination as early as possible. This is a prerequisite for admission into B/CLAD Multiple Subject program. These scores must have been received within five years prior to recommendation. Information may be obtained through advisers in the Policy Studies in Language and Cross-Cultural Education Department, ED-152, and registration materials are available in the lobby of the Education building.

## 3. Prerequisite Courses.

Policy Studies in Language and Cross-Cultural Education 401

3 units
Education 451 ............................................................... 3 units
Exercise and Nutritional Sciences 241A, 241B .............. 2 units
Linguistics 420* or 520 ................................................... 3 units
Linguistics 452* ............................................................ 3 units
Linguistics 550 or Policy Studies in Language and
Cross-Cultural Education 915A
.3 units
Mathematics $210^{* *}$ or 211 or 313 ................................... 3 units
Art 100 or 101 or 387; Music 102 or 343; Theatre 100 or 120 or 310 or 315 .

3 units

[^24]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), ED-152. 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. In lieu of the actual Certificate of Clearance or copy of a credential, candidates may submit their clearance application packets and fees to the Credentials office, ED-151.
10. Credential Advising Appointment. Each applicant must meet with a faculty adviser to plan an appropriate program, which includes a minimum of 31 units as defined by the Commission on Teacher Credentialing. Make appointment in ED-152, telephone (619) 594-5155.
11. Language and Culture Examination. All candidates must pass the PLC Department Spanish Language Proficiency and Cultural Awareness Examination prior to entering the credential program. Please call (619) 594-3218.
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.

## Program*

PLC 901 Professional Portfolio I ........................................... 1
PLC 902 Professional Portfolio II............................................ 1
PLC 910 Teaching Mathematics to Bilingual Elementary Students

3
PLC 911 Teaching Social Studies to Bilingual Elementary Students

3

PLC 912 Teaching Science to Bilingual Elementary
Students

3

PLC 923 Psychological Foundations of Education and
Bilingual Students
3
PLC 931 Skills in Teaching Reading to Bilingual Elementary Students ..... 3
PLC 932 Teaching Spanish Language Arts to Bilingual Elementary Students ..... 3
PLC 960 Student Teaching Seminar for Bilingual Elementary Students ..... 6
PLC 961 Student Teaching for Bilingual Elementary Students ..... 8
PLC 962 Student Teaching for Elementary Bilingual Students II ..... 8
EDTEC 470 Technologies for Teaching. ..... 3

* Credential requirements may change under SB-2042. Contact department for details.


## Preliminary Credential Requirements

1. A bachelor's degree (or higher) with any major other than education.
2. Completion of an approved program of professional education. (See Department of Policy Studies in Language and CrossCultural Education for further information.)
3. Passage of PRAXIS Examination, Multiple Subject Assessment for Teachers (MSAT) or approved waiver program (Liberal Studies major, Emphasis in Education).
4. Passage of the Spanish Language Proficiency and Cultural Awareness Examination.
5. Demonstrated knowledge of principles and provisions of United States Constitution through successful completion of three-unit college level course or examination. Courses are listed in General Catalog section on "Graduation Requirements," IV. American Institutions Requirement, C.3.b.
6. Passage of California Basic Educational Skills Test (CBEST).
7. Passage of Reading Instruction Competence Assessment (RICA) Test.
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."

## Clear Credential Requirements

1. Completion of an approved fifth year program (a minimum of 30 upper division or graduate-level postbaccalaureate units).
2. Coursework/fieldwork to satisfy the Individuals with Disabilities Act. Needs of and methods of providing educational opportunities to individuals with exceptional needs (mainstreaming): Special Education 500 or Teacher Education 526.
3. Demonstrated knowledge of computer hardware, software, and applications to educational/classroom use (computer literacy): Educational Technology 570.
4. Knowledge of health education in California, including substance abuse and nutrition: Community Health Education 101 or 920, and verification of CPR competency.
5. Candidates are required to verify cardiopulmonary resuscitation.

The Professional Clear Multiple Subject credential is valid for five years and requires completion of a minimum of 150 hours of approved professional growth activities and 90 days of teaching-related activities in order to be renewed.

## Single Subject Bilingual Cross-Cultural 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 schoo classroom. This credential authorizes the holder to teach in any selfcontained 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 B/CLAD/Spanish emphasis" in the application for graduate admission to SDSU (Code: 00100). Students applying for admission should electronically submit the University application available at www.csumentor.edu.

The following materials should be submitted as a complete package directly to the Policy Studies in Language and Cross-Cultural Education Department (department applications are available from the Aztec Shops Bookstore).

1. Two sets of official transcripts in sealed envelopes from each issuing institution;
2. Complete department application (copy of scores for CBEST/ Spanish Proficiency Examination/PRAXIS-SSAT or adviser's recommendation, TB test results, letters of recommendation, early field experience, character and identification clearance, autobiography/goals and philosophy).
Mail or deliver your complete department admissions package to: Policy Studies in Language and Cross-Cultural Education Department
San Diego State University
San Diego, CA 92182-1152

## 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 Commission on Teacher Credentialing. Booklets containing registration forms and test information are available from the Test Office in SS-2549, (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 teachertraining institution, passing scores on the appropriate PRAXIS/ SSAT examinations, or a combination of coursework and examination scores. Competency will be assessed and verified by subject matter departments at SDSU. Requirements for the various single subject majors are listed with the academic majors in the General Catalog.

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:

ED 451 Introduction to Multicultural Education ......... 3 units
LING 420 Linguistics and English 3 units
PLC 400 The Secondary School and Bilingual Education OR
LING 520 Fundamentals of Linguistics 3 units

LING 520 Fundamentals of Linguistics ........................... 3 units
PLC 401 Theories and Practices in Multilingual 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), ED-152. 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. Submit clearance application packet and fees to the Credentials office, ED-151
10. Credential Advising Appointment. Each applicant must meet with a faculty adviser to plan an appropriate program, which includes a minimum of 31 units as defined by the Commission on Teacher Credentialing. Appointments can be made in ED-152, telephone (619) 594-5155.
11. Language and Culture Examination. All candidates must pass the Spanish Language Proficiency and Cultural Awareness Examination prior to entering the credential program. Please cal (619) 594-3218.
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*
Prerequisites
ED 451

PLC 400 | Introduction to Multicultural Education.................. |
| :---: |
| The Secondary School and Bilingual |
| Education ....................................................... 3 |

* Credential requirements may change under SB 2042.

Contact department for details.

## 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 CrossCultural 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, 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), ED-152, to clarify the appropriate means for satisfaction of the subject matter competency requirement.
4. Passage of the Spanish Language Proficiency and Cultural Awareness Examination.
5. Demonstrated knowledge of principles and provisions of United States Constitution through successful completion of three-unit college level course or examination. Courses are listed in General Catalog section on "Graduation Requirements," IV. American Institutions Requirement, C.3.b.
6. Passage of California Basic Educational Skills Test (CBEST).

NOTE: Undergraduate students in their final semester prior to obtaining a baccalaureate degree may sign up for concurrent postbaccalaureate credit as explained in this catalog.

## Clear Credential Requirements

1. Completion of an approved fifth year program (a minimum of 30 upper division or graduate-level postbaccalaureate units).
2. Coursework/fieldwork to satisfy PL 94-142: Needs of, and methods of providing educational opportunities to individuals with exceptional needs (mainstreaming) (TE 526).
3. Demonstrated knowledge of computer hardware, software, and applications to education/classroom use (computer literacy): Educational Technology 570.
4. Knowledge of health education in California, including substance abuse and nutrition, Community Health Education 101 or 920, and verification of current CPR competency.
5. Candidates are required to verify cardiopulmonary resuscitation.

The professional Clear Single Subject credential is valid for five years and requires completion of a minimum of 150 hours of approved professional growth activities and 90 days of teaching-related activities in order to be renewed.

## CLAD or 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 all financial aid that would be available were they to participate in an on-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 Natalie Kuhlman (nkuhlman@mail.sdsu.edu; (619) 594-1184) 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

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 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), ED 152, 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 post-examination 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 Language Arts

3 units
2. The Culture of Emphasis: Latin America:

PLC 686 Seminar in Multicultural Education: Culture of Latin America 3 units
3. 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)

## UPPER DIVISION COURSES

 (Intended for Undergraduates)397. Problems in Education (Credit to be arranged) I, II (Offered only in Extension)
Prerequisite: Consent of instructor.
Class study of specially selected problems in education. Does not apply to pattern requirements for credentials. Credit earned in this course not applicable to a bachelor's degree.

## 400. The Secondary School and Bilingual Education

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.

## 401. 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 515.)
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.

## 496. Experimental Topics (1-4) I, II

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.

Individual study. Maximum credit six units.
UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)
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.
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 Bulletin of the Graduate Division.

# 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, Lewin, Little, Miles, Padgett, Schultze, Soule
Chair: Terrell
Professors: Conniff, Gupta, Heck, Hofstetter, Loveman, Strand, Terrell Associate Professors: Alexseev, Carruthers, Fairlie, Keiser
Assistant Professors: Abdel-Nour, Graubart, Guang,
Hill-Maher, Kennedy, McCall, Schreiber
Lecturers: Bergstrom, Epps, Ingram, Speckmann, 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. Students must enter the University under the political science premajor code (22070). 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: Biology 215, Civil Engineering160, 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. Complete a minimum of 30 transferable semester units;
c. Have a cumulative GPA of 2.40 or higher;
d. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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 to the major.

## Political Science Major

## With the B.A. Degree in Liberal Arts and Sciences

 (Premajor Code: 22070) (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 45 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. (12 units)

See Political Science 201 for listing of courses in other departments that fulfill the statistics requirement.

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or History 450W, Linguistics 305W, or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better.

Major. A minimum of 24 upper division units to include (a) three units in Political Science 495, 497, 498, 596, or a 500-level political science course in any one of the four fields; and (b) 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.

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)

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 (POL s)

## LOWER DIVISION COURSES

101. Introduction to American Politics in Global Perspective (3) I, II
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.

## 102. Introduction to American and California Government and

 Politics (3) 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.

## 103. Introduction to Comparative Politics (3) 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.

## 201. Elementary Statistics for Political Science (3) I, II

Prerequisites: Course in intermediate algebra; Political Science 101 and 102; satisfaction of the Entry-Level Mathematics requirement.

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; Biology 215; Civil Engineering 160; Economics 201; Psychology 270; Sociology 201; Statistics 119, 250.

## 296. ExperimentalTopics (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.

## FieId I: Political Theory UPPER DIVISION COURSES (Intended for Undergraduates)

## 301A-301B. History of Western Political Thought (3-3)

Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for 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.

## 302. Modern Political Thought (3)

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.

## 305. American Political Thought (3)

The origin and development of American political ideas from colonial times to the present. Meets the graduation requirement in the United States Constitution. When taken with Political Science 320, 321 or 422, will also satisfy graduation requirements in American Institu-

## tions.

## 406. Democracy and Mass Society (3)

Origin and development of theories of democracy and application of democratic ideas to contemporary political life.

## 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.
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 <br> UPPER DIVISION COURSES (Intended for Undergraduates)

## 321. State Politics (3)

Politics and policy making at the state and local levels, relations among national, state, and local governments. Emphasis on California problems and politics. Meets the graduation requirement in California government. When taken with Political Science 305 or 320 , will also satisfy graduation requirements in American Institutions.

## 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).

## 334. Politics of the Environment (3)

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.

## 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.

## 336. Women's Issues in the American Political Process (3)

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.

## 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.

## 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.

## 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, federa system, separation of powers, nature of selected congressional-presidential powers. Satisfies graduation requirement in United States Constitution. (Formerly numbered Political Science 547A-547B.)

## 348. The Supreme Court and Contemporary Issues (3)

Recent decisions of the Supreme Court of the United States and their relationship to contemporary political and social issues. Not open to students with credit in both Political Science 347A and 347B.

## 422. Urban Politics (3)

Prerequisite: Political Science 101 or 102.
The processes by which social conflicts in American urban areas are represented and regulated. Urban political culture; ecology; group development and activity; power structures; and reform movements are surveyed. The character of the urban political "problem" and proposed solutions are evaluated. Meets graduation requirement in California state and local government. When taken with Political Science 305 or 320, will also satisfy all requirements in American Institutions.

## 425. Political Behavior (3)

Prerequisites: Political Science 102.
Social and attitudinal variables in political behavior. Quantitative research data as used in electoral studies. May include a substantia amount of material about foreign political systems

## 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

## 430. Immigration and Border Politics (3)

Prerequisite: Political Science 301B or 302 or 305 or 406.
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

## 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 presidentia leadership, staffing, executive-legislative relations and policy formation.

## 454. Special Problems in Public Law (3)

Prerequisites: Political Science 101 and 102, and three upper division units within Field III.

Exploration of selected issues in the field of law.

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

## 530. Political Parties (3)

Prerequisite: Political Science 102 or 320
The political party as a part of the process of government; party organization and activities; nominating and campaign methods; theories and functions of the party system; party responsibility. The functioning of political parties in the American political system. May include a substantial amount of material about foreign political systems.

## 531. Interest Groups and Political Movements <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.
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 <br> UPPER DIVISION COURSES (Intended for Undergraduates)

## 356. Governments of Continental Europe (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

The political systems of countries of western continental Europe.
357. Politics of England (3)

The structure and functioning of the English parliamentary system with emphasis on present-day political principles and parties.

## 359. Government and Politics of Russia and the Commonwealth (3)

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

## 361. Governments and Politics of the Developing Areas

(3)

Prerequisites: Political Science 101 or 103; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Internal political systems, governmental structures and the foreign policies of developing nations.

## 362. Governments and Politics of East Asia (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

The internal political structure and foreign policies of China, Japan, and Korea.

## 363. Governments and Politics of the Middle East (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

The governmental and political structures of representative states in the Middle East including Turkey, Israel and the Arab states.

## 364. Political Change in Modern Africa (3)

Dynamics of social and political change in modern Africa.
370. Political Violence (3)

Prerequisites: Political Science 101, 102 or 103; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Underlying conditions, expressions and consequences of violence within political systems.

## UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)

## 555. Comparative Political Systems

(3)

Prerequisite: Political Science 103.
An examination of selected political and governmental systems for purposes of comparative study and analysis to determine similariies, differences and general patterns and universals among political systems.

## 560. Comparative Public Policy (3)

Prerequisite: Political Science 103 or 335
Ways that political and social factors shape policy choices, implementation strategies, and policy outcomes in selected countries, emphasis on industrialized nations. Policy areas chosen from: education, health, nutrition, crime, transportation, housing, energy, population control, poverty, unemployment, inflation.

## 563. Government and Politics of Asian Countries (3)

Prerequisite: Political Science 103 or 362 or Asian Studies 100 or History 566 or 567.

Domestic politics and foreign policies of select Asian countries such as China, India, South Korea, and Taiwan; to include political institutions and change, development politics and external relations in these countries. May be repeated with new title and content. See Class Schedule for specific content. Maximum credit six units
564. Environmental Politics in Global Perspective

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.
566. Political Change in Latin America (3)

Prerequisite: Political Science 101 or 103
General pattern of politics and political development in Latin America with an emphasis on those features which condition domestic and foreign policy making.

## 567. Political Systems of Latin America <br> Prerequisite: Political Science 566 <br> Domestic and international politics of selected Latin American states.

## 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)

## 375. International Relations (3)

Dynamics of conflict and cooperation among national, international and transnational actors; contributing political, economic, and social factors.

## 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.
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.

## 479. National Security Policy (3)

Objectives, instruments, and consequences of national security policy.
481. International Relations of the Developing Nations (3)

Prerequisite: Six units of political science.
Cooperation and conflict between the developing nations and relations of such nations with the developed countries.
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.
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

(Also Acceptable for Advanced Degrees)
575. International Relations of the Pacific Rim (3)

Prerequisite: Political Science 362 or 375 or 481
Dynamics of conflict and cooperation among nations of the Pacific Rim. Stress on political and economics factors that shape interstate relations.

## 577. Principles of International Law (3)

The function of law in the international community. The historical development of the ideas and rules of international law and their place in the modern diplomatic and legal structure.

## Elective Courses <br> UPPER DIVISION COURSES (Intended for Undergraduates)

## 320. American Institutions (3) I, II

The principles of the Constitution of the United States of America and a survey of the political and social institutions which have developed under the Constitution. Meets the graduation requirement in the United States Constitution and California state and local government. When taken with Political Science 305,321 or 422 , will also satisfy graduation requirements in American Institutions. Credit will not be allowed for both Political Science 102 and 320.

## 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.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree

## 497. Investigation and Report (3) I, II

Prerequisite: Limited to senior political science majors with a cumulative 3.0 in upper division political science courses.

Senior thesis. Analysis of special topics.
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. Maximum credit six units applicable to the major in political science; maximum credit three units applicable to the minor in political science.
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)

## 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. (Formerly numbered Political Science 515A.)
516. Statistics for Political Scientists
(3)

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. (Formerly numbered Political Science 515B.)

## 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 Bulletin of the Graduate Division.

OFFICE: Business Administration 403
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## Faculty

Chair: Kish
Professor: Silverman

## 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 in Portuguese, six units of which must be in upper division courses. Recommended: History 552.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

## Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Portuguese to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Portuguese 301 or the equivalent level of achievement. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

## High School Equivalents

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

Secondary school language courses can be used as follows:

1. The first two years of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.
2. The first three years of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.
3. Four years of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the foreign language requirement.

## Courses (PORT)

## 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.

## Portuguese

In the College of Arts and Letters

## 101. Elementary/Intensive Portuguese I <br> (5) I

Five lectures and one hour of laboratory.
Prerequisite: Three years of high school Romance language or two semesters of college romance language.

Pronunciation, oral practice, reading on Luso-Brazilian culture and civilization, essentials of grammar. Not open to students who have completed three years of high school Portuguese unless the third course was completed five or more years ago.

## 201. Elementary/Intensive Portuguese II (5) II

Prerequisite: Portuguese 101.
Continuation of Portuguese 101. Not open to students who have completed four years of high school Portuguese unless the fourth course was completed five or more years ago.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 299. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

(Intended for Undergraduates)
All upper division courses in Portuguese are taught in

## Portuguese unless otherwise stated.

No credit will be given for lower division courses taken after successfully completing any upper division Portuguese course.

## 301. Intermediate Portuguese Grammar and Composition (3)

Prerequisites: Portuguese 201; and completion of the General Education requirement in Foundations II.C., Humanities required for non-majors.

Oral and written composition in Portuguese, based on models from modern Portuguese and Brazilian texts.
401. Advanced Portuguese Grammar and Composition (3)

Prerequisites: Portuguese 301; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Oral and written composition in Portuguese, based on models from modern Portuguese and Brazilian texts.
443. Contemporary Luso-Brazilian Civilization

Prerequisite: Portuguese 401.
Historical, cultural socioeconomic, ethnic, geographic, and political factors of modern Brazil and Portugal.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

## 534. Portuguese Literature (3)

Prerequisite: Portuguese 401.
Important movements, authors, and works in the literature of Portugal from its beginnings to the present.
535. Brazilian Literature (3)

Prerequisite: Portuguese 401.
Important movements, authors, and works of the literature of Brazil from the colonial period to modern times.

## 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 Communication, Music and Dance, and Theatre, Television, and Film.

## Courses (PSFA)

LOWER DIVISION COURSE

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

320. Creativity and Communication in the Arts
(3) $\mathrm{Cr} / \mathrm{NC}$

One lecture and four hours of activity.
Prerequisite: Upper division standing
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, and visual art events required.

## 66Either write something worth reading or do something worth writing."

- Benjamin Franklin


## 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

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WEB SITE: www.psychology.sdsu.edu

## Faculty

Emeritus: Alf, Borges, Defran, Dicken, Franzini, Gallo, Grossberg, Harari, Hillix, Hunrichs, Karen, Kass, Koppman, Leckart, Lee, Levine, Lynn, McCordick, McDonald, O'Day, Penn, Plotnik, Psomas, Radlow, Rodin, Rosenbaum, Sattler, Schulte, Scollay, Segal, Sheposh, Smith, Spinetta, Stevens, Turner
Chair: Murphy
Professors: Atkins-Kaplan, Bryson, Cronan, Dunn (IVC), Fenson, Graf, Graham, Hornbeck, Klonoff, Langlais, Litrownik, Marlin, Marshall, Martin, Matt, McGivern, Mollenauer, Murphy, Prislin, Reed, Reilly, Riley, Saccuzzo, Sallis, Scott
Associate Professors: Castañeda (IVC), Hattrup, Malcarne, Price (Joseph), Price (Judy), Velasquez, Wifley
Assistant Professors: Alfonso-Reese, Christensen, Conte, Devos, Ehrhart, K., Ehrhart, M., Friend, Gallo, Mattson, Mueller, Roesch, Thomas, Twenge, 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

## Psychology

In the College of Sciences

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. Students must enter the University under the psychology premajor code (20010). To be admitted to the psychology major, students must meet the following criteria:
a. Complete 12 units in the following courses or equivalent with a grade of C or higher: Psychology 101, 211, 230, 260, 270, 271; and Biology 100. The 12 units must include Psychology 101 and 270, and Biology 100. These courses cannot be taken for credit/no credit (Cr/NC);
b. Clear the competency requirement in writing. Refer to Graduation Requirements section of this catalog for details;
c. Complete a minimum of 45 transferable semester units;
d. Have a cumulative GPA of 2.40 or higher;
e. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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 116) 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.

## Psychology Major

## With the B.A. Degree in Liberal Arts and Sciences

## (Premajor Code: 20010) (Major Code: 20011)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in psychology courses can apply to the degree.

A minor is not required for this major. However, depending on career goals, students may wish to consider minors in areas such as biology, business, public administration, recreation, social work, statistics, and others.

## General Requirements for the Major

Preparation for the Major. Psychology 101, 211, 230, 260, 270, 271, and Biology 100. (19 units). Students planning to major in psychology are advised to take these courses for a letter grade and to complete them before progressing to upper division courses in the major. 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.

Foreign 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 section of catalog on "Graduation Requirements." Psychology majors are urged to discuss scheduling the foreign language requirement with an adviser in the Psychology Undergraduate Advising Office.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

The Major. 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 doctora 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 18-21 units selected from one of the following areas

Industrial/Organizational: Psychology 101 and 270 or equivalent; 12 units of upper division psychology to include Psychology 319, 320, 321, and 370. Students with credit in Management 350 or Public Administration 340 may not enroll in Psychology 321, but may select another upper division psychology course. (18 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)

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 " $U$," 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

## 101. Introductory Psychology (3) I, II

Facts, principles, and concepts which are basic to understanding human behavior.
211. Learning (3) I, II

Prerequisite: Psychology 101.
Basic principles and research in animal and human learning.
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

## 250. Faculty Student Mentoring Program (1) Cr/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.

## 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.
270. Statistical Methods in Psychology (3) I, II

Prerequisites: Psychology 101; concurrent registration in Psychology 271; satisfaction of the Entry-Level Mathematics requirement; and qualification on the Mathematics Departmental Placement Examination, Part IA. Proof of completion of prerequisites required: Copy of ELM score or verification of exemption, and verification of registration in Psychology 271.

Quantitative methods in psychology. Measures of central tendency and variability, graphic methods and percentiles, linear correlation and regression, applications of the normal probability curve, and an introduction to statistical inference including analysis of variance and chi-square. Students with credit or concurrent registration in the following lower division statistics courses will be awarded a total of four units for the two (or more) courses: Psychology 270; Biology 215; Civil Engineering 160; Economics 201; Political Science 201; Sociology 201; Statistics 119 and 250.

## 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.

## UPPER DIVISION COURSES (Intended for Undergraduates)

Note: To declare the psychology major, students must report in person to the Psychology Undergraduate Advising Office and provide the Undergraduate Coordinator 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.

Satisfaction of the SDSU Writing Requirement is a prerequisite for all upper division courses in psychology. Refer to the Graduation Requirements section of the catalog for specific writing requirement (freshmen/transfer students) that needs to be satisfied. Competency will be enforced by RegLine for most upper division psychology classes. For exceptions contact the Psychology Undergraduate Advising Office. Students who crash classes after RegLine will be required to show proof of competency.

## 301. Introduction to Research Methods in Psychology (4) I, II <br> Three lectures and two hours of activity.

Prerequisites: 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.

## 316. Behavior Modification (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.
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 and 321.
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 2003-04 academic year.
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 2003-04 academic year.

## 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.

## 332. Psychology of Adolescent and Early Adult

 Development (3) I, IIPrerequisites: 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.

## 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.

## 340. Social Psychology (3) 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.

## 344. Psychology and Culture (3)

Prerequisite: Psychology 101.
Impact of culture in each of psychology's major areas, theories, and empirical findings.

## 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.
351. Psychology of Personality (3), I, II, S

Prerequisites: Psychology 101; completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required.

Major theoretical approaches to individual differences and the study of the person. Techniques of personality assessment. Selected research findings.

## 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.
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.

## 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.
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 eventrelated potentials.

## 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.

## 370. Psychological Testing and Measurement (3) I, II

Prerequisite: Grade of B or better in Psychology 270 or equivalent statistics course. Proof of completion of prerequisite required: Copy of transcript.

Measurement theory and the basic principles of testing. Selection, construction and critical evaluation of group tests of intelligence, personality, aptitude, interest and achievement.
380. Cognitive Psychology (3)

Prerequisite: Psychology 101. Recommended: Psychology 211.
Theory and research on attention, learning, memory, thinking, understanding, and language.
388. Sensation and Perception (3)

Prerequisites: Psychology 101 and 260.
Theory and research in sensory and perceptual processes.
407. Health Psychology (3) I, II

Prerequisites: Psychology 211 and 270. Proof of completion of prerequisites required: Copy of transcript.

Behavioral components of major illnesses and causes of death and disability. Primary prevention of health problems through behavior change and psychological features of the health care system.

## 410. Laboratory in Experimental Psychology (5) I, II <br> Two lectures and six hours of activity.

Prerequisites: 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.
412. Advanced Laboratory in Social Psychology

Two lectures and six hours of activity.
Prerequisite: Psychology 410. Proof of completion of prerequisite required: Copy of transcript.

Experimental literature, assigned and original laboratory projects in field of social psychology.

## 415. Advanced Laboratory in Personality and Clinical Psychology (5)

Two lectures and six hours of activity.
Prerequisite: Psychology 410. Recommended: Psychology 350 or 351. Proof of completion of prerequisite required: Copy of transcript.

Experimental and theoretical literature, assigned and original laboratory projects in field of personality and clinical psychology.
417. Advanced Laboratory in Primate Behavior
(5)

Two lectures and six hours of activity.
Prerequisites: Psychology 101; 260 or three units of biology or three units of anthropology; and Psychology 270. Recommended: Psychology 410. Proof of completion of prerequisites required: Copy of transcript.

Experimental literature, assigned and original observational and experimental projects in field of primate learning and behavior.
418. Advanced Laboratory in Developmental Psychology (5)

Two lectures and six hours of activity.
Prerequisites: Psychology 230 and 410. Proof of completion of prerequisites required: Copy of transcript.

Methods, techniques and principles used in scientific study of child behavior.

## 419. Advanced Laboratory in Memory and Cognition

Two lectures and six hours of activity.
Prerequisite: Psychology 410. Recommended: Psychology 380.
Proof of completion of prerequisite required: Copy of transcript.
Experimental literature, assigned and original laboratory projects in human memory and cognition. Examination of information-processing capacities and processes in perception, learning, memory, and other cognitive activities.

## 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.

## 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.

## 456. Psychology of Death and Bereavement (3)

Latest psychological research and clinical practice in the area of death and dying, geared to assisting the student in appropriate ways of aiding both the dying and the bereaved in coming to terms with death.

## 457. Psychological Factors in Alcoholism (3)

Prerequisites: Six units of psychology and upper division standing.
Theoretical and empirical approaches to alcoholism: causes and treatment.
460. Advanced Topics in Physiological Psychology

Prerequisite: Psychology 260 or six units of biology.
Selected areas within physiological psychology. See Class Schedule for specific content. May be repeated with new content. Maximum credit six units.

## 470. Intermediate Statistics for Psychological Research

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.

## 491. Academic or Psychological Counseling <br> Experiences (3) $\mathrm{Cr} / \mathrm{NC}$

Prerequisites: Upper division psychology major with a 3.0 minimum grade point average and consent of the psychology undergraduate coordinator.

Individual supervision of academic or psychological counseling experiences, geared to the acquisition of counseling and communication skills. May be repeated with the approval of the psychology undergraduate coordinator. Maximum credit six units. No more than 12 units of courses numbered Psychology 491, 495, 497, 499 may be counted toward the major.
492. Responsible Conduct in Scientific Research (1) $\mathrm{Cr} / \mathrm{NC}$

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.

## 495. Readings and Practice in Companionship <br> 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.

Students are paired with troubled or potentially troubled clients from selected community agencies, supervised by both the instructor and the agency. Assigned readings, small group meetings, written reports required. May be repeated with new client and agency. Maximum credit six units. No more than 12 units of courses numbered Psychology 491, 495, 497, 499 may be counted toward the major.

## 496. Selected Topics in Psychology (1-4)

Prerequisite: Psychology 101.
Intensive study in specific areas of psychology. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

## 497. Senior Project (1-3) I, II

Prerequisites: Twelve units of psychology and consent of instructor. Individual investigation and APA-style report on a research project. Maximum credit six units. No more than 12 units of courses numbered Psychology 491, 495, 497, 499 may be counted toward the major.

## 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.

## 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, 495, 497, 499 may be counted toward the major.

## UPPER DIVISION COURSES

## (Also Acceptable for Advanced Degrees)

## 501. History of Psychology (3)

Limited to graduate students or psychology majors with senior standing

The historical background of modern psychology.

## 502. Philosophical Issues in Psychology <br> (3)

Prerequisite: Six units of psychology.
Mind-brain relationship and other topics at the interface of psychology and philosophy.

## 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.

## 551. Clinical Psychology:Theory and Practice (3)

Prerequisite: Psychology 350. Proof of completion of prerequisite required: Copy of transcript.

Clinical assessment, theory and practice of behavior change, and professional ethics.

## 552. Psychology of Obesity and Weight Management (3)

Prerequisite: Senior or graduate standing in psychology or related fields.

Theory and current research issues on psychology of obesity, weight control, and eating disorders. Social, personality, cognitive, and physiological influences. Use of cognitive behavior modification for weight control.

## 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.

## 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. (Formerly numbered Psychology 764.)
587. Advanced Principles of Learning and Cognition

Prerequisites: Psychology 211, 270, and 380.
Empirical data, basic principles and theoretical positions of major theorists in learning and cognitive psychology.
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 Bulletin of the Graduate Division.

# Public Administration and Urban Studies 

In the College of Professional Studies and Fine Arts

OFFICE: Professional Studies and Fine Arts 100
TELEPHONE: (619) 594-6224
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A Member of the National Association of Schools of Public Affairs and Administration (NASPAA).

## Faculty

Emeritus: Boostrom, Clapp, Dobbs, Gitchoff, Henderson, Kitchen, Kochanski, Sparrow
Director: Rea
Professors: Calavita, Caves, Gazell, Gilbreath, Herzog, Pugh, Rea, Ryan, R., Sutton
Associate Professors: Lee, Pearl, Sabath, Stock, Wilson
Assistant Professors: Baer, Coates, Farmbry, Greene, Hughes, Mclllwain, Nurge, Ryan, S., Zellerer

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).

## 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. Students must enter the University under the public administration premajor code (21020). 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 and SDSU GPA of 2.40 or higher;
d. Students not meeting the minimum GPA requirement may petition for special consideration;
e. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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).

## Public Administration Major

## With the B.A. Degree in Applied Arts and Sciences

 (Premajor Code: 21020) (Major Code: 21021)All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.
Preparation for the Major. 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)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include Public Administration 301, 310 or 312 or $315,330,340,450,460,497$ or 498; and 15 units selected with the approval of an adviser from the public administration faculty. Within this program, students may specialize in such areas as personnel and labor relations, urban management, urban planning, public finance and budgeting, information systems,
and environmental management. Interested students must seek guidance from a public administration program faculty adviser. A master plan of the courses taken to fulfill the major must be approved by a public administration program faculty adviser and filed with the Office of 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)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include Public Administration 301, 310, 330, 340, 450, 460, 497 or 498; and Public Administration 320, 420, 525, and two courses selected from Public Administration 341, 350, 510, and 512. A master plan of courses taken to fulfill this emphasis must be approved by a city planning program faculty adviser and filed with the Office of 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)

## LOWER DIVISION COURSE

## 200. The Urban Scene (3) I, II

Key issues in public administration, criminal justice administration, and city planning. Emphasis on government structure and public decision-making process, organizational behavior, effectiveness of criminal justice policies, zoning, and land use considerations.

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

## 301. Concepts and Issues in Public Administration (3) I, II

Theory and practice of governmental administration in differing environments, role of administrators in public policy, issues facing administrators, techniques of administration.

## 310. Management of Urban Governments (3) I, II

Problems of local units of government in the urban environment. Organization and function of local agencies. Emphasis on California.

## 312. Management of State Governments (3) I

Administrative and constitutional problems of state management in the American federal system. Emphasis on California.

## 315. Management of the Federal Government (3) II

Prerequisite: Public Administration 301.
Problems in the administration of the federal government. Leadership, specialization, unity of command, and oversight.

## 320. Introduction to Urban Planning (3) I, II

An introduction to community planning: regional, county, and city. Consideration of the master plan including its purposes, contents, and method of adoption.

## 330. Public Personnel Administration (3) I, II

Analysis of personnel problems. Supervision and management of public employees and public organizations in an age of change.

## 340. Administrative Behavior (3) I, II

Social, psychological, and behavioral theories of organization; concepts of administrative leadership; organization and the individual; emphasis on governmental organizations. Not open to students with credit in Psychology 321.
341. Administrative Management (3) I, II

Areas and problems of administrative research. Management and operations in public organizations including forecasting, resource allocation, planning and administration of programs, preparation of administrative reports. Quantitative models of managerial decision making.

## 350. Contemporary Urban Issues (3)

Focus on urban areas and urbanism from a public policy perspective; course examines and critiques the physical, economic, social and political dimensions of contemporary American cities utilizing a multidisciplinary approach.
420. Methods of Analysis in City Planning (3) II

Prerequisites: Public Administration 320 and basic statistics course.

Methods of primary data collection and analysis of secondary data sources for problem solving in city planning, techniques associated with urban design and urban development.

## 440. Microcomputer Applications in Criminal Justice and Public Administration (3)

Two lectures and three hours of laboratory.
Prerequisite: Limited to criminal justice administration and public administration majors.

Operation and use of microcomputer hardware and software in criminal justice. Laboratory instruction focuses on applicability of programs to criminal justice operations.
450. Fiscal and Budgetary Policy (3) I, II

Prerequisites: Public Administration 301, Economics 101 and 102.
Policies of fiscal administration and budgeting; political implications of the governmental budget process; revenue, debt, and treasury management; the functions of accounting and financial reporting.

## 460. Administration and Public Policy Development (3) I, II

Process of formulating public policy with emphasis on the role of public agencies.

## 475. The American City in the Cinema

(3)

Two lectures and two hours of activity.
Growth of American city and various aspects of urban life, such as immigration, industrialization, anti-urbanism, and the city of the future, as reflected in American films. (Formerly numbered Public Administration 475A.)
480. Leadership and the Public Sector (3)

Prerequisite: Public Administration 301.
Leaders as energizing forces for public administration. Analysis of leadership theories and case studies.

## 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.
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.

## 496. ExperimentalTopics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
497. Investigation and Report (3) I, II

Prerequisite: Consent of instructor.
Analysis of special topics. Admission by permission of instructor.
498. Internship in Public Administration (2-6) Cr/NC I, II

Prerequisites: Public Administration 301, 330, 340, 341, 450, and all lower division required courses; senior standing and a "B" (3.0) average in the major.

Students will be assigned to various government agencies and will work under joint supervision of agency heads and the course instructor. Participation in staff and internship conferences. Maximum credit six units.
499. Special Study (1-3) I,II

Prerequisite: Twelve upper division units in public administration. Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

## (Also Acceptable for Advanced Degrees)

510. Intergovernmental Relations in the United States
(3) I

Prerequisite: Public Administration 310 or 312 or 315.
Constitution, political and administrative characteristics of American federalism, including regionalism, interstate compacts, and grants-in-aid.

## 512. The Metropolitan Area (3)

Prerequisite: Public Administration 310 or 312.
Problems of government and administration arising from population patterns and physical and social structures of metropolitan areas.

## 520. Decision Making in the Urban Community (3)

Prerequisite: Public Administration 310.
Processes of decision making in the management of urban communities.
525. The U.S. City Planning Process (3) I

Prerequisite: Public Administration 320 or graduate standing.
Description and critique of traditional city planning process; styles and roles of city planner; city planning values and ethics.
530. Negotiation and Bargaining in the Public Service
(3)

Prerequisite: Public Administration 301.
Specific issues such as strategies, the effects of threat, the physical setting, use of a third-party observer and theories of advocacy. Emphasis on analyzing simulations of the bargaining process and developing effective negotiation skills.
531. Governmental Employer-Employee Relations

Prerequisite: Public Administration 330.
Historical development, legal basis, and organizational implications of governmental employer-employee relations; emphasis on California local government.

## 540. Public Administrative Systems Analysis (3)

Prerequisites: Public Administration 301 and a statistics course.
Systems and organization analysis; work standards and units; procedures analysis; administrative planning.

## 550. Budgetary and Financial Administration in the Public

 Sector (3) IIPrerequisites: Public Administration 301 and 450.
Management trends in public sector financial administration; budgetary procedures and techniques; control and monitoring systems. Cash management, capital projects management, debt administration, disbursement, funds management, and auditing.

## 570. Administrative Law (3)

Prerequisite: Public Administration 301.
The law of public office and public officers, powers of administrative authorities, scope and limits of administrative powers, remedies against administrative action.

## 580. Comparative Public Administration

(3)

Prerequisite: Public Administration 301.
Administrative organization and process of selected foreign and American governments. Analysis of the cultural basis of administrative systems.

## GRADUATE COURSES IN <br> PUBLIC ADMINISTRATION AND URBAN STUDIES and CITY PLANNING <br> Refer to Bulletin of the Graduate Division.

# Recreation 

OFFICE: Professional Studies and Fine Arts 431 TELEPHONE: (619) 594-5110
FAX: (619) 594-3320

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, Peterson, Rankin
Chair: Lamke
Professors: Beck, L., Dixon, Gattas, Lamke
Associate Professor: Testa
Assistant Professor: Sasidharan
Lecturers: Beck, A., Gabay, Lustig, 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.

## In the College of Professional Studies and Fine Arts

## 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)

## LOWER DIVISION COURSES

## 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.

## 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.

## 284. Supervised Field Work (3) Cr/NC I, II, S

Prerequisites: Consent of instructor or department chair, credit or concurrent registration in Recreation 107, and 125 hours experience in recreation leadership.

Observation and participation in community recreation leadership. Practical experience in a variety of recreational settings. Eight hours per week at an agency.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES (Intended for Undergraduates)

304. Challenges of Leisure (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Study of leisure and its impact on contemporary life; issues affecting recreation in today's urbanized society. (Formerly numbered Recreation 204.)

## 305. Wilderness and the Leisure Experience (3) I, II

Prerequisites: Biology 100; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Use and abuse of natural resources for recreational purposes. Effects of increased leisure on wilderness areas. Field experiences required. (Formerly numbered Recreation 205.)

## 340. Conduct of Recreational Sports (3) I, II

Three lectures plus outside practical experience in the conduct of recreational sports programs.

Organization of competition, community sports programs, administration of intramural athletics, and techniques of officiating.

## 351. Recreation for Special Populations (3) I, II

Analysis of the sociopsychological aspects of special populations and their implications for leisure pursuits. Field trips may be included.
361. Scientific Foundations of Recreation Therapy (3)

Prerequisite: Recreation 351 required for recreation majors; open to others with consent of instructor.

Theoretical principles of therapy and prevention. Survey of medical and psychiatric pathology and terminology.
371. Professional Foundations of Recreation Therapy (3) I, II

Prerequisite: Recreation 351 required for recreation majors; open to others with consent of instructor.

Analysis of present-day policies, programs, implementation and future aspects of professional principles of recreation therapy.

396W. Writing in Recreation Settings (3) I, II
Prerequisites: Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Communication 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.
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.

## 464. Supervision of Recreation and Park Agencies <br> (3) I, II

Prerequisite: Recreation 107.
Interagency relations, personnel policies and procedures, volunteer coordination, supervisory techniques, community organization, public relations in public, private and commercial settings.
470. Recreational Travel and Tourism Management (3) I

Prerequisites recommended: Recreation 101 and 304.
Tourism management, economics, marketing and development. Recognizing indicators of tourism's recreational, social and cultural impact. Organization of tourism industry and its components.
475. Commercial Recreation and Attractions Management (3) I

Analysis of commercial recreation field, including design, development, programming and marketing aspects of various commercial recreation enterprises.
477. Tourism Planning (3)

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.
484. Directed Leadership (3) $\mathbf{C r} / \mathrm{NC}$ I, II, S

One lecture and eight hours of supervised activity.
Prerequisite: Recreation 284.
Supervised leadership experience in public and private recreation agencies. Maximum credit six units.

## 485. Outdoor Recreation Planning and Policy (3) II

Nature and scope of recreation in nonurban areas. Public demand for recreation and its impact on natural resources. Management, planning, research and operation of regional and national park and recreation areas.
487. Outdoor Education and Environmental Interpretation (3)

Prerequisite: Recreation 101.
Philosophy, theory, methods, and scope of outdoor education and environmental interpretation.
489. Outdoor Leadership and Adventure Programming (3)

Prerequisite: Recreation 305.
Theoretical principles and experience in leadership, judgment, and decision making in outdoor adventure programming.
496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
498. Internship in Recreation Systems (6 or 12) Cr/NC I, II, S

Twenty off-campus hours required per week for 6-unit program, or 40 off-campus hours required per week for 12-unit programs.

Prerequisites: Consent of instructor or department chair, completion of all required lower division recreation courses, and completion of both Standard or Multimedia First Aid certificate and CPR certificate by end of semester.

Students will be assigned to various governmental, commercial, private or medical agencies conducting recreation programs. Variety of experiences in supervision and administration. Maximum credit 12 units.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of special study adviser.
Individual study. Maximum credit six units.

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

## 561. Legal Aspects and Research in Recreation and Parks

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.)

## 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.)
575. Designing Recreation and Park Areas and Facilities (3) I, II Prerequisite: Recreation 101.
Design principles and concepts applied to planning and development of park and recreation areas and facilities.
580. Leisure, 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.

GRADUATE COURSES
Refer to Bulletin of the Graduate Division.

# Religious Studies 

In the College of Arts and Letters

OFFICE: Adams Humanities 4231
TELEPHONE: (619) 594-5185
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EMAIL: erother@mail.sdsu.edu

## Faculty

Emeritus: Anderson, Downing, Friedman, Gefter, Johnson, Jordan, Khalil, Sparks
Chair: Holler
Professor: Holler
Associate Professor: Kohn
Assistant Professor: Moore
Lecturers: Boni, Mueller, Swayd, Thomas

## Offered by the Department

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

## The Major

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.

## 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)

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or Rhetoric and Writing Studies 305W or 500W with a grade of $C$ (2.0) or better.

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, and three units from Religion in the Americas:

Area 1, Sacred Texts: Religious Studies 301, 305, 310. (3 units)
Area 2, World Traditions: Religious Studies 320, 325, 328, 333, 335, 337, 338, 339, 345. (9 units)

Area 3, Religion, Society, and Culture: Religious Studies 350, 353, 355, 358, 360, 363, 364, 370, 373, 376, 378, 379. (9 units)

Area 4, Religion in the Americas: Religious Studies 385, 390A, 390B, 395, 530. (3 units)

In order to complete the 30 unit requirement, students can select a course from any of the four areas.

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 to include at least three lower division units in religious studies and 12 upper division units selected from the four areas of study.

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 (rels)

## LOWER DIVISION COURSES

100. Exploring the Bible (3) 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.

## 101. World Religions (3) 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

## 103. American Religious Diversity (3) 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.
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)

## 301. Hebrew Bible (3) I, II

Prerequisites: Three units of religious studies; and 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.

## 305. The New Testament (3) I, II

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Recommended: Religious Studies 301.

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.

## 310. The Qur'an (3)

Prerequisites: Three units of religious studies; and 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 <br> (Intended for Undergraduates)

320. Judaism (3)

Prerequisites: Three units of religious studies; and 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.

## 325. Christianity (3)

Prerequisites: Three units of religious studies; and 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.

## 328. Islam (3)

Prerequisites: Three units of religious studies; and 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. (Formerly numbered Religious Studies 340.)

## 333. Ancient Near Eastern Religions (3)

Prerequisites: Three units of religious studies; and 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.

## 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.

## 337. Shamanism (3)

Prerequisite: Three units of religious studies.
Global forms of shamanism, including Amazonian, African, Native American, and Southeast Asian, before and after Columbus. Archaic forms of shamanism and revival in industrial age; how shamanism informs contemporary religious meaning and experience. (Formerly numbered Religious Studies 380.)

## 338. Buddhism (3)

Prerequisites: Three units of religious studies; and 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.

## 339. Religions of India (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

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. (Formerly numbered Religious Studies 401.)

## 345. Religions of East Asia (3)

Prerequisites: Three units of religious studies; and 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. (Formerly numbered Religious Studies 403.)

## Area 3: Religion, Society, and Culture UPPER DIVISION COURSES (Intended for Undergraduates)

## 350. Dynamics of Religious Experience (3)

Prerequisites: Three units of religious studies; and 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.

## 353. Religion and Psychology (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

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.

## 355. Love and Marriage in Western Religions <br> (3)

Prerequisite: Three units in religious studies.
Judeo-Christian practice and meaning of love, romance, and marriage based on historical and literary sources. Biblical period to present with emphasis on contemporary values and issues.

## 358. Death, Dying, and the Afterlife (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

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.

## 360. Religion, Literature, and the Arts (3)

Prerequisite: Three units of religious studies.
The relations between religion, literature, and the arts in major cultural traditions.

## 363. Religion and the Sciences

(3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

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.

## 364. Religion and Film (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Representations of religion in modern cinema and analysis of how religious themes and imagery in film reflect societal values, beliefs, and morals.

## 370. Women in Religion (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

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.

## 373. Women and the Bible (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

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.

## 376. Nature, Spirituality, Ecology (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

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.

## 378. Religion and the Marketplace (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Modes of consumption and economics in relation to religious beliefs and practices. Use of religion in marketing and marketing of religion.

## 379. Religious Violence and Nonviolence (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

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)

## 385. American Indian Religions (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Religions of Native peoples in North and South America from earliest to contemporary times. American Indian myths, primal world views, shamanism, rituals, vision quest, autobiographies, contributions of women, encounter of traditions with modernity.

## 390A-390B. Religious Experience in America (3-3)

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 course satisfies the graduation requirement in American Institutions.

## 395. Alternative Religious Movements (3)

Prerequisites: Three units of religious studies; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

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)

## 530. Liberation Theologies (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)

## 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.

## 496. Experimental Topics (1-4)

Prerequisite: Three units of religious studies.
Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 499. Special Study (1-3) I, II

Prerequisite: Twelve upper division units in religious studies. Individual study. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

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.

## 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.

## 582. Major Text (1-3)

Prerequisites: Three units of religious studies and upper division or graduate standing.

Advanced systematic study of a selected scripture or classic text(s) selected from one of the major religious traditions. May be repeated with new content. See Class Schedule for specific content.

Maximum credit six units.

## 583. Major Tradition (3)

Prerequisites: Three units of religious studies and upper division or graduate standing.

Advanced systematic study of the doctrines, practices, and development of a major religious tradition. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units.

## 596. Advanced Topics in Religious Studies (1-3)

Prerequisite: Consent of instructor.
Advanced selected topics in religious studies. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30 -unit master's degree.

## GRADUATE COURSES

Refer to Bulletin of the Graduate Division.

# Rhetoric and Writing Studies 

In the College of Arts and Letters

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## Faculty

Emerita: Denman, Johns
Chair: McClish
Professors: McClish, Sweedler-Brown
Associate Professors: Boyd, Hindman, Ornatowski, Poole, Quandahl, Robinett
Assistant Professors: Bekins, Bordelon, Werry
Lecturers: Boeck, Borgen, Brown, Brush, Bryson, Bucky, Cavender, Costello, Emery, Fielden, Finn, Fish, Fox, Hoffman, Kilcrease, Kline, Mack, Maggio, Manley, Miller, Moorin, Renner, Sherman, Sigmon, Stagnaro, Taylor, Thompson, Underwood, Williams, J., Williams, T.

## Offered by the Department

Master of Arts degree in rhetoric and writing studies.
Certificate in technical and scientific writing (refer to Bulletin of the Graduate Division).

## 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 Upper Division Writing Requirement. The department also offers a required course in the teaching of composition for students in the Single Subject Teaching Credential in English degree program.

## Courses (RWs)

## LOWER DIVISION COURSES

(Non-Baccalaureate Credit)
Rhetoric and writing studies courses numbered below 100 may not be used to satisfy graduation requirements.
92A. Developmental Writing: Fundamentals of Writing (3) 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 lower division 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 97A.
*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 lower division writing competency requirement.

## 94. Developmental Writing for International or Bilingual <br> Students (3) Cr/NC/RP I, II

Intermediate written English with emphasis on problems of nonnative speakers; discussion of sentence, paragraph, and essay writing skills. Open only to ESL students who have not satisfied the SDSU Writing Competency requirement. Students attaining a score of 8 or better on the final examination earn a grade of "Cr" and satisfy the SDSU lower division writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of "RP." Students receiving an "RP" should reenroll in Rhetoric and Writing Studies 94.
95. Developmental Writing for International or Bilingual Transfer Students (3) Cr/NC/RP I, II
Prerequisite: Open to ESL transfer students who have not satisfied the lower division writing competency requirement.

Academic prose, emphasizing purpose, structure, and style of academic writing. Issues relevant to non-native speakers of English. Designed to improve transfer students' ability to plan, draft, revise, and edit essays, and to read and analyze texts. Students attaining a score of 8 or better on the final examination earn a grade of "Cr" and satisfy the SDSU lower division writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of "RP." Students receiving an "RP" should enroll in Rhetoric and Writing Studies 92B or 95, as advised by the instructor. Credit in Rhetoric and Writing Studies 95 satisfies the SDSU lower division writing competency requirement.

## 96. Developmental Writing: Fundamentals of Writing for Transfer

 Students (3) Cr/NC/RPPrerequisite: Open only to transfer students who have not satisfied the lower division competency requirement.

Academic prose, emphasizing purpose, structure, and style of academic writing. Designed to improve students' ability to plan, draft, revise, edit essays, and improve ability to read and analyze complex academic and public texts. Credit in Rhetoric and Writing Studies 96 satisfies the SDSU lower division writing competency requirement.

## 97A. Developmental Reading and Writing (Integrated Curriculum) (4) Cr/NC/RP I

Three lectures and two hours of activity.
Students enrolled in Rhetoric and Writing Studies 97A must also be enrolled in the Intensive Learning Experience (Integrated Curriculum), which integrates instruction in the writing process and academic prose with the content of a General Education course. Rhetoric and Writing Studies 97A is designed to provide students with writing and critical thinking skills essential to academic achievement. Emphasizes individualized instruction to meet the unique needs of each student.

The final examination in Rhetoric and Writing Studies 97A is the Developmental Writing Proficiency Examination. Students attaining a score of 8 or better on the final examination earn a grade of "Cr" and

[^25]satisfy the SDSU lower division writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of "RP." Students receiving an "RP" grade should enroll in Rhetoric and Writing Studies 92B or 97B. Not open to students with credit in Rhetoric and Writing Studies 92A.

## 97B. Developmental Reading and Writing (Integrated Curriculum) (4) $\mathrm{Cr} / \mathrm{NC} / \mathrm{RP}$ II

Three lectures and two hours of activity.
Prerequisites: Open only to students who earned "RP" (report in progress) in Rhetoric and Writing Studies 97A but have not satisfied the SDSU lower division writing competency requirement.

Instruction in intermediate writing skills. Evaluation based on student writing portfolio. Credit in Rhetoric and Writing Studies 97B satisfies the SDSU writing competency requirement. Not open to students with credit in Rhetoric and Writing Studies 92B.

## 98. Mini-Course: Selected Topics (1) $\mathrm{Cr} / \mathrm{NC}$

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)

100. Writing and Reading as Critical Inquiry (3) I, II (CAN ENGL 2) International students are advised to take Linguistics 100.
Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements. (See Graduation Requirements section of catalog.) Proof of completion of prerequisites required: Copy of EPT or competency scores or verification of exemption; proof of credit (Cr) in Rhetoric and Writing Studies 92A or 92B or 97A or 97B.

Introduction to writing and reading as critical inquiry, designed to help students successfully undertake writing projects that have depth and complexity of university level work. Students learn to use sources 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, Africana Studies 120 or Chicana and Chicano Studies 111B or Linguistics 100.

## 101. Writing and Reading as Critical Inquiry (3)

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. Not open to students with credit in a higher numbered composition course or Rhetoric and Writing Studies 100, Africana Studies 120 or Chicana and Chicano Studies 111B or Linguistics 100.

## 200. Writing from Sources (3) I, II

International students are advised to take Linguistics 200.
Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements and Rhetoric and Writing Studies 100 or Africana Studies 120 or Chicana and Chicano Studies 111B or Linguistics 100. Proof of completion of prerequisites required: Test scores or verification of exemption; copy of transcript.

Further practice in academic and professional writing, reading, and critical thinking. Emphasis on using multiple sources, finding relationships among them and generating analytical responses to them
through writing. Continued attention to decisions about structure, cohesion, and rhetorical conventions. Not open to students with credit in Africana Studies 200, Chicana and Chicano Studies 200, or Linguistics 200. Completion of Rhetoric and Writing Studies 200 may require completion of the library workbook assignment.

## 253. Grammar and Usage for Writers <br> (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.

## 296. Experimental Topics (1-4) $\mathrm{Cr} / \mathrm{NC}$

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.

## 299. Special Study (3)

Prerequisite: Consent of department chair and instructor. Individual Study.

## UPPER DIVISION COURSES (Intended for Undergraduates)

## 305W. Writing in Various Settings (3)

International students are advised to take Linguistics 305W.
Prerequisites: Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Communication and Critical Thinking. It is strongly recommended that the course be taken at the beginning of the junior year, so that students have an opportunity to demonstrate their writing proficiency in upper division courses taken after they pass Rhetoric and Writing Studies 305W. 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.
496. Topics in Rhetoric and Writing Studies (1-3)

Selected topics. May be repeated once with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
499. Directed Study (1-3) I, II

Prerequisites: Consent of instructor and approval of department chair.

Individual study. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

## 500W. Advanced Composition (3) I, II

Prerequisites: Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Communication 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.

## 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.
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 on-line and Internet documentation. Rhetorical issues in electronic writing technologies.

## 503W. Technical Writing (3) I, II, S

Prerequisites: Rhetoric and Writing Studies 200. Satisfies University Upper Division Writing requirement for students who have completed 60 units, fulfilled the Writing Competency requirement, and completed the General Education requirement in Communication 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.
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 reproduction of technical documents; types of technical communication, including reports, manuals, and proposals; manuscript editing and proofreading; audience analysis and readability; writing and recognition of clear technical prose.

## 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.

## 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.
508. Scientific Writing (3)

Prerequisite: Upper Division Writing requirement for undergraduates. Proof of completion of prerequisite required: Test scores or verification of exemption; copy of transcript. Intended for those entering a career in scientific writing.

Developing specific writing skills for scientific research and communication. Learning scientific documentation: research paper, case report, review, abstract, promotional material. Adhering to standards and regulations.
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.

## 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.

## 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.
599. Special Study (1-3) Cr/NC

Directed individual study. Maximum credit six units.
GRADUATE COURSES Refer to Bulletin of the Graduate Division.

## NOTE:

Rhetoric and Writing Studies 97A is equivalent to Rhetoric and Writing Studies 92A.
Rhetoric and Writing Studies 97B is equivalent to Rhetoric and Writing Studies 92B.
Enrollment in Rhetoric and Writing Studies 97A and 97B is restricted to students participating in the Integrated Curriculum program.

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## Faculty

Emeritus: Dukas, Fetzer
Interim Chair: Benkov
Professor: Shapovalov

## 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.

## Russian Major

## With the B.A. Degree in Liberal Arts and Sciences (Major Code: 11061)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in Russian courses can apply to the degree.

Students majoring in Russian must complete a minor in another field to be approved by the departmental adviser in Russian.

Preparation for the Major. Russian 100A, 100B, 200A, 200B, 211. (23 units)

# In the Department of European Studies In the College of Arts and Letters 

Foreign Language Requirement. The foreign language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 24 upper division units in Russian to include Russian 301, 304, 305A-305B, 430 and nine units in 500 -level courses in Russian.

## Russian Major

## In preparation for the Single Subject Teaching Credential

 in Foreign LanguagesWith the B.A. Degree in Liberal Arts and Sciences
(Major Code: 11061)
All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education. For students completing the single subject teaching credential program, no more than 54 units in Russian courses can apply to the degree.

This major may be used by students in policy studies or teacher education as an undergraduate major for the B.A. degree in liberal arts and sciences. A minor in another field approved by the departmental adviser in Russian is required for the degree.

Preparation for the Major. Russian 100A, 100B, 200A, 200B, 211. (23 units)

Foreign Language Requirement. The foreign language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 30 upper division units in Russian to include $301,303,304,305 \mathrm{~A}-305 \mathrm{~B}, 430,501,580$; and six units in 400 - or $500-$ level courses in Russian.

Proficiency Examination. Before taking a student teaching assignment in Russian, the candidate for the credential may be required to pass an oral and written proficiency examination in the language, administered by the Department of 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 20 units in Russian to include Russian 200B and six units of upper division courses in Russian.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

## Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Russian to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Russian 200A or the equivalent level of achievement. The usual sequence of coursework is Russian 100A, 100B, and 200A. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

## High School Equivalents

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

Secondary school language courses can be used as follows:

1. The first two years of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.
2. The first three years of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.
3. Four years of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the foreign language requirement.

## Courses (russn)

## LOWER DIVISION COURSES

Native speakers of Russian will not receive credit for taking lower division courses in Russian except with advance approval from the department.

All lower division courses in Russian are taught in Russian.
No credit will be given for 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.

## 100A. First Course in Russian (5) I

Pronunciation, oral practice, reading, essentials of grammar. Not open to students who have completed three years of high school Russian unless the third course was completed five or more years ago.

## 100B. Second Course in Russian (5) II

Prerequisite: Russian 100A or two years of high school Russian.
Continuation of Russian 100A. Not open to students who have completed four years of high school Russian unless the fourth course was completed five or more years ago.

## 200A. Third Course in Russian (5) I

Prerequisite: Russian 100B or three years of high school Russian.
Practical application and review of the basic principles of Russian. Oral practice, reading of cultural material in Russian. (Formerly numbered Russian 201.)

## 200B. Fourth Course in Russian (5) II

Prerequisite: Russian 200A.
Continuation of Russian 200A.

## 211. Intermediate Conversation (3) II

Prerequisite: Russian 200A.
Practice in the spoken language with emphasis on the articulation of Russian sounds; practical vocabulary; conversation on everyday cultural topics.

## UPPER DIVISION COURSES

(Intended for Undergraduates)
All upper division courses in Russian are taught in Russian unless otherwise stated.
301. Advanced Grammar and Composition (3)

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

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

## 303. Political and Business Russian

Prerequisite: Russian 301.
Commercial and political Russian, with emphasis on international relations and socioeconomic aspects of contemporary Russia.

## 304. Phonetics of Spoken Russian (3)

Prerequisites: Russian 200B and 211.
Sound system of Russian with attention to variety of intonation patterns. Training in oral communication and self-expression through practical drills with emphasis on improvement of pronunciation and intonation.

## 305A-305B. Survey of Russian Literature (3-3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Russian literature from its beginnings, with emphasis on nineteenth and twentieth centuries. Taught in English with readings in English.

## 430. Russian Civilization (3)

Prerequisite: Russian 200B. Proof of completion of prerequisite required: Copy of transcript.

Development of Russian culture; emphasis on painting, music, architecture, and literature within a social context.
435. Russian and Central European Jewish Literature (3)

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.

## 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)

501. Translation (3)

Prerequisite: Russian 301.
Comparison of Russian and English through translation of a variety of texts from Russian to English and from English to Russian.
555. Russian Literature of the Nineteenth Century (3)

Prerequisite: Russian 200B.
Development of Russian novel, short story, drama and poetry of the nineteenth century.
563. Russian Literature of the Twentieth Century

Prerequisite: Russian 200B.
Poetry, prose and drama of the twentieth century.
580. Russian Syntax and Stylistics (3)

Prerequisite: Russian 301. Proof of completion of prerequisite required: Copy of transcript.

The structure of contemporary Russian.
596. Topics in Russian Studies (3) I, II

Prerequisite: Russian 305B (for literary topics). Proof of completion of prerequisite required: Copy of transcript.

Topics in Russian language, literature, or linguistics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to Bulletin of the Graduate Division.

# Social Science 

OFFICE: Adams Humanities 4212
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## Social Science Single Subject Credentials

Dr. Carole Putko, Adams Humanities 4212
(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 the 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 the Middle East or in Environment.

The social science major is appropriate for many beginning positions in government and, when supplemented with a business administration minor, for careers in business. For students who continue in graduate study after receiving their bachelor's degrees, it is an excellent preparation for graduate and professional programs in law, social work, public administration, librarianship, counseling, business, and the ministry. Students who complete the Single Subject Teaching Credential in Social Science are prepared to teach world history, United States history, geography, government, and economics in high school.

The social science major with an emphasis in environment provides an opportunity for the student to gain an interdisciplinary perspective on some of the major quality of life, public health, and natural resource conservation problems facing the world today. The course offerings available in the emphasis will provide a basic understanding of the nature of the problems, as well as give more specific insights into such practical aspects as the economics and politics associated with these environmental challenges. The large range of courses from which students may choose allows them latitude to pursue their individual interests.

Students selecting the emphasis in environment will be prepared to pursue careers in a wide variety of fields associated with natural resource management, such as county, state, or federal agencies that manage parks, recreation areas, or other public lands. Entry-level jobs with planning or consulting firms are other possibilities. The emphasis will also provide students with a broad background that will be useful in a variety of graduate programs dealing with the natural environment or with natural resource conservation.

## Impacted Program

The social science major in preparation for the single subject teaching credential is an impacted program. Students must enter the University under the social science premajor code (22010). 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.

## Social Science Major

## With the B.A. Degree in Liberal Arts and Sciences

## (Major Code: 22011)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.
Preparation for the Major. Three units of statistics selected from Economics 201, Political Science 201, Psychology 270, Sociology 201, or Statistics 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 100, 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)

Foreign 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 section of catalog on "Graduation Requirements." Spanish is recommended for those planning to work in this part of the United States.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 33 upper division units to include 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, 350A350B, 480.

Students with a 15-unit specialization in Chicana and Chicano studies must take the remaining 12 lower division units and 18 upper division units in anthropology, economics, geography, history, political science, or sociology.

Only students with a specialization in anthropology, economics, geography, history, political science or sociology may take a maximum of six units in the major from Africana studies or American Indian studies or 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.

## Emphasis in Africa and the 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.

Foreign 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. Students are encouraged to meet the foreign language competency requirement for the social science major by taking a language appropriate to their interests in African or Middle Eastern studies. Refer to the section of this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 30 upper division units, 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.

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C(2.0)$ or better.

Major. A minimum of 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 (Premajor Code: 22010) (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 and specific criteria are used to admit to the upper division major. Students enter the University under the premajor code (22010). To be admitted to the upper division major code (22011), students must meet the following criteria:
a. Complete with a grade of C or higher: Economics 101, 102; Geography 101, 102; History 100, 101; Political Science 101, 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 and SDSU GPA of 2.50 or higher;
d. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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 101, 102; History 100, 101; Political Science 101, 102, Religious Studies 101. (27 units)

Foreign 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 section of catalog on "Graduation Requirements." Spanish is recommended for those planning to work in this part of the United States.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 42 upper division units to include:
United States and California History: History 409, 410 and History 444, 445.

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 the 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, 555.
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, 481, 566, 568; Women's Studies 580.

Economics: Three units selected from Economics 330, 336, 338, 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)

## LOWER DIVISION COURSES

## 201A. Introduction to SPSS (1) Cr/NC I, II, S

Two hours of laboratory for 12 weeks and six hours to be arranged. Prerequisite: Consent of instructor.
Introduction to 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, one-way anova, correlation, and regression

## 201B. Introduction to Access (1) Cr/NC I, II, S

Two hours of laboratory for 12 weeks and six hours to be arranged. Introduction to the 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.

## 201C. Introduction to Excel (1) Cr/NC I, II, S

Two hours of laboratory for 12 weeks and six hours to be arranged.
Introduction to use of spreadsheet software. Create and format spreadsheets and workbooks, work with formulas and functions, charts, lists and databases, macros, and "what-if" analysis.

## 201D. Internet Research (1) Cr/NC I, II

Two hours of laboratory for 12 weeks and six hours to be arranged. Introduction to 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.

201E. Introduction to Word and PowerPoint (1) Cr/NC
Two hours of laboratory for 12 weeks and six hours to be arranged. Introduction to 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.

201F. Introduction to Web Page Development (1) Cr/NC I, II
Two hours of laboratory for 12 weeks and six hours to be arranged.
Prerequisite: Social Science 201D or commensurate experience.
Introduction to 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.

## 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)

## 596. Advanced Topics in Social Science (1) $\mathrm{Cr} / \mathrm{NC}$

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.

GRADUATE COURSES
Refer to Bulletin of the Graduate Division.

## Social Work

## In the College of Health and Human Services

## OFFICE: Hepner Hall 119 TELEPHONE: (619) 594-6865

Accredited by the Council on Social Work Education.

## Faculty

Emeritus: Ajemian, Baily, Brennen, Butler, Davis, Dean, Griffin, Guidry, Haworth, Ishikawa, Kahn, Kelley, Kukkonen, Raymer, Reichert, Riehman, Sardinas, Siman, Stanford, Valle, Zuniga
Director: Harbert
Associate Director: Finnegan
Professors: DeGennaro, Harbert, Jones, Landsverk
Associate Professors: Barrio, Clapp, Engstrom, Finnegan, Harris, Hohman, Hughes, Packard, Rasmussen, Shillington
Assistant Professors: Carrilio, James, Mathiesen, Min, Sucato
Lecturers: Dudley, Eichler, Fong, Keith, Letourneau, London, Marsden, Milstein, Newell, Okamura, Segars, Siegel, Stanger, Walden O'Cull

## 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. Students must enter the University under the social work premajor code (21040). To be admitted to the social work major, students must meet the following criteria:
a. Complete with a grade of C or higher: Social Work 110, 120, 130; Biology 100 or any three units in a human biology course;

Economics 100 or three units of any economics course; Community Health Education 101; Psychology 101; Sociology 101; Psychology 270 or Sociology 201 or 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 and SDSU GPA of 2.40 or higher;
d. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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).

## Social Work Major

## With the B.A. Degree in Liberal Arts and Sciences

 (Premajor Code: 21040) (Major Code: 21041)All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog entitled "Graduation Requirements." No more than 51 units in social work courses can apply to the degree.

A minor is not required with this major.
Preparation for the Major. All new students to this program are considered premajors and are assigned the 21040 premajor code. The code will stay in effect until students complete the 27 unit preparation for the major coursework. Students must come to the Undergraduate Adviser to complete a change of major form to the 21041 major code in order to take the upper division courses (exceptions to this are SWORK 350 and 360 which can be taken without the major code change). Students must change to the major code prior to REGLINE registration or the computer will not permit access to any social work course. The following nine courses constitute the preparation for the major: Social Work 110, 120, 130; Biology 100 or any three units in a human biology course; Economics 100 or three units of any economics course; Community Health Education 101; Psychology 101; Sociology 101; Psychology 270 or Sociology 201 or Statistics 250 . (27 units)

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 41 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 six 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 premajor and 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 nine units of Social Work 110, 120, 130 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 41 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.

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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 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, 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)

## LOWER DIVISION COURSES

## 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.

## 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.

## 130. Contemporary Human and Helping Relationships (3) I, II

Positive and negative dimensions of human relationships and how they can require social work intervention through helping process. Develop students' understanding of themselves in helping relationship.
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)

350. Cultural Pluralism (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Understanding of the American society as a culturally pluralistic social process and an understanding of social work as a culturally directed profession with emphasis on the concept of cultural identities created by one's values, ideologies, knowledge and behavior.

## 360. Perspectives on Human Behavior and the Social Environment (3) I, II

Prerequisite: Completion of General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Interdisciplinary, comparative, and critical approach to explanatory theories of human behavior. Focus on interrelatedness of factors that affect the nature and quality of human life with linkage to the social welfare of individuals, families and communities.

## 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.

## 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.)

## 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.

## 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.

## 400. Social Work Practice: Child Welfare <br> (3) I, II

Prerequisite: Social Work 370.
Problems of children and supportive, supplementary and substitute social services which have been developed to meet these needs.
410. Social Work Practice: Family Issues (3) I, II

Prerequisite: Social Work 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.
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.

## 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.

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.

489A-489B. Field Experience in Social 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.

## 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.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
497. Investigation and Report (3) I, II

Prerequisite: Consent of instructor.
Analysis of special topics in social welfare.
499. Special Study (1-3) Cr/NC I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSE

## (Also Acceptable for Advanced Degrees)

## 596. Experimental Topics (1-4)

Selected topics in social work. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

## GRADUATE COURSES

Refer to Bulletin of the Graduate Division.

OFFICE: Nasatir Hall 203
TELEPHONE: (619) 594-5449 / FAX: (619) 594-1325
EMAIL: msannwal@mail.sdsu.edu
WEB SITE: www-rohan.sdsu.edu/dept/sdsusoci/sociology.html

## Faculty

Emeritus: Bloomberg, Chandler, Cottrell, DeLora, El-Assal, Gillette, Hough, Ima, Kennedy, Milne, Preston, Sandlin, Scheck, Schulze, Somerville, Sorensen, Stephenson, Wendling, Werner, Winslow
Chair: Emerick
Professors: Emerick, Gay, Hohm, Kolody, Wood
Associate Professors: Buck, Kirkpatrick, Liu, Ojeda, Pershing, Zhang Assistant Professors: Esbenshade, Sargent
Lecturers: Clanton, Eaton, Johnston

## 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.

## Impacted Program

The sociology major is an impacted program. Students must enter the University under the sociology premajor code (22080). 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 any two units selected from Social Science 201B, 201C, 201D, 201E. These courses cannot be taken for credit/no credit (Cr/NC);
b. Complete a minimum of 30 transferable semester units;
c. Have a cumulative GPA of 2.40 or higher;
d. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).

## Sociology

In the College of Arts and Letters

## 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.

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 Upper Division Writing Requirement. Interested students should consult with the undergraduate adviser in the Sociology Department.

## Courses (soc)

## LOWER DIVISION COURSES

## 101. Introductory Sociology: The Study of Society <br> (3) I, II (CAN SOC 2)

This course is prerequisite to all upper division courses in sociology. Major ideas, concepts, and methods in the study of society to include socialization, culture, social structure, social stratification, deviance, social control, and social change.

## 150. Introduction to Social Problems (3) I, II (CAN SOC 4)

Prerequisite: Sociology 101.
Contemporary social problems. Topics may include poverty, inequality, unemployment, crime and deviance, population and ecological problems, health, family issues, and the role of ideology and interest groups in the definition of social problems.

## 201. Elementary Social Statistics (3) I, II

Prerequisites: Course in intermediate algebra. Sociology 101; satisfaction of the Entry Level Mathematics requirement; and qualification on the Mathematics Departmental Placement Examination, Part IA.

Basic statistical techniques in sociology. Tables and graphs, measures of central tendency and variability, correlations, cross-classification, and introduction to multivariate analysis, sampling and statistical inference. Computer applications may be included. Students with credit or concurrent registration in the following lower division statistics courses will be awarded a total of four units for the two (or more) courses: Sociology 201; Biology 215; Civil Engineering 160; Economics 201; Political Science 201; Psychology 270; Statistics 119, 250.

## 250. Introduction to Social Research (3) I, II

Prerequisites: Sociology 201 and three units from Social Science 201A (required), and 201B, 201C, 201D, or 201E.

Methods of sociological analysis including surveys, participant observation, ethnography, comparative, historical, and content analysis. Methods are linked to sociological theory. (Formerly numbered Sociology 301.)

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES

 (Intended for Undergraduates)305. Sociological Laboratory II (1)

Three hours of laboratory.
Prerequisite: Must be taken in conjunction with a three-unit upper division course.

Application of experimental, quantitative or qualitative methods to sociological problems and the use of experimental, social simulation teaching techniques.
310. Love, Jealousy, and Envy:The Sociology of Emotions (3)

Prerequisite: Sociology 101.
Sociological understanding of human emotions developed through consideration of history of sex and love, social psychology of jealousy, and political implications of envy. Understanding and management of emotions analyzed in context of community and society.
320. Sex/Gender Roles in American Society (3)

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.

## 335. Mass Communication and Popular Culture (3)

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Development of popular culture as influenced by the growth of mass media of communication, including popular music, television, film, newspapers, and advertising. The power, functions, and effects of the mass media in society and in social change.

## 338. Sociology of Religion (3)

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Forms of religious belief, knowledge, practice, and experience tied to different social arrangements and historical periods. Consequences of religion for community and society. Secularization and conversion processes in modern industrial societies.

## 350. Population and Contemporary Issues (3)

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.

## 352. Contemporary Social Problems (3)

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Contemporary social problems in North America and other areas of the world.

## 355. Minority Group Relations (3) I, II

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Historical and comparative analysis of race and ethnic relations. Origins and maintenance of ethnic stratification systems; discrimination and prejudice; the adaptation of minority communities; role of social movements and government policies in promoting civil rights and social change.

## 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.

## 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.

## 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.

## 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.

## 410. Social Psychology: Mind, Self, and Society (3)

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Major theories, problems, and findings concerning the relationship of the individual and society. Topics include consciousness and construction of meaning, self-concept and social identity, socialization and interaction, group behavior and group membership.

## 412. Social Construction of Reality (3)

Prerequisite: Sociology 101.
Analysis of reality as an ongoing social process. Creation and internalization of social worlds through language. Common sense and the multiple realities of everyday life. Dynamic emergence of social structure.

## 420. Sexuality in Modern Society (3)

Prerequisite: Sociology 101.
Current research on contemporary sexual attitudes and behaviors, including changing norms in premarital, marital, and extramarital relationships. Controversies and implications for the individual and society.

## 421. The American Family and Its Alternatives (3)

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Changes in intimacy in American family. Selection of mating partners, spousal and parenting relationships, and alternatives to traditional family forms. Changing functions of the family viewed in historical perspective. Present diverse family arrangements and future prospects.

## 430. Social Organization (3)

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.

Social structure of societies. Historical examination of structure and development of social institutions, communities, and other large scale organizations.

## 433. Wealth, Status, and Power (3)

Prerequisite: Sociology 250 with a grade of $C$ (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.

## 436. Sociology of Health and Illness

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.

## 441. Sociology of Mental IIIness <br> (3) <br> 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.

## 442. Sociology of Murder (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.

## 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.

## 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.

## 445. Sociology of Deviance (3)

Prerequisite: Sociology 101.
Conformity and nonconformity; the relationship between individual liberty and social control; stigma and the labeling of deviant behavior such as prostitution, alcoholism, drug addiction, and crime.

## 450. Social Change (3)

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Social change at the interpersonal, institutional, and societal levels of analysis. Major economic, political, technological, and demographic forces that have shaped the contemporary world. Topics may include modernization, industrialization, urbanization, revolution, and prospects of social change in rich and poor nations.
456. Collective Behavior: Crowds, Cults, and Crazes

Prerequisite: Sociology 101.
Processes of social behavior in masses and groups, including crowd behavior, mass hysteria, riots, mobs, fads, fashions, crazes, panics, rumors, and scapegoating. Sects and cults; social movements; the effects of mass communications and propaganda.

## 457. Protests, Reforms, and Revolutions (3) <br> Prerequisite: Sociology 101.

Revolutionary and reform movements in relationship to the larger society. Conditions leading to development of social movements, emergence of leadership, ideologies, strategies, recruitment of members, and social consequences; case studies.

## 480. Field Internship (3-6)

Prerequisite: Sociology 101.
Supervised field placement of students in community agencies. Practical experiences related to studies within the sociology curriculum. Maximum credit six units.

## 481. Community Poverty Workshop (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.

## 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.

## 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.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

## (Also Acceptable for Advanced Degrees)

## 505. Applied Sociological Research (3)

Prerequisites: Sociology 250 and Sociology 407 or 408.
Types and methods of applied sociological research; and an overview of their application in substantive areas. Practical research skills.

## 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.

## 527. Aging and Society (3)

Prerequisite: Sociology 101.
Status and roles of men and women in the second half of the life cycle. Ethnic, sex and class variables in aging. Cross-cultural comparisons of occupational, educational, familial, recreational and political opportunities for the aging.

## 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.

## 532. Workers, Managers, and Bureaucracy <br> (3)

Prerequisite: Sociology 101.
Sociology of work in formal organizations. From classic theories on division of labor, industrial capitalism, and bureaucracy, to transformation of work in the twentieth century. Experiences of workers and managers in the U.S. and other societies.

## 537. Political Sociology (3)

Prerequisite: Sociology 101.
Social organization of political processes. Power and authority, social class, primary groups, collective behavior, social change, and other sociological factors considered in their relationships to political processes.

## 539. Sociology of Education

Prerequisite: Sociology 101.
Social organization of education in the United States and other societies. Structure and functions of educational institutions. Formal and informal education. Class, ethnic, and other social factors affecting the educational process. Implications of educational decision making and testing.

## 543. Police, Courts, and Corrections: The Sociology of Crime and Punishment (3)

Prerequisite: Sociology 101.
Historical sociology of the American criminal justice system. Development and functions of police, criminal courts, prisons, parole, and probation. Theories and ideologies of punishment and rehabilitation. Review of contemporary research.

## 555. Immigrants and Refugees in Contemporary American Society (3)

Prerequisite: Sociology 101.
Contemporary migration to the United States, especially from Latin America and Asia. Political and economic migration. Immigrant and refugee adaptation. Theoretical controversies, research applications, and policy implications.

## 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.
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 Bulletin of the Graduate Division.

OFFICE: Business Administration 403
TELEPHONE: (619) 594-6588
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## Faculty

Emeritus: Barrera, Case, Castro (Castillo), Christensen, Head, Jiménez-Vera, Lemus, O'Brien, Segade, Talamantes, Weeter Chair: Kish
Professors: Hidalgo, Robinson, Silverman, Wilson
Associate Professor: Young
Assistant Professors: Angelelli, Godoy, Martín-Flores, Moyna, Múzquiz-Guerreiro, Rosenberg, Strejilevich, Zabaleta

## Offered by the Department of Spanish and Portuguese Languages and Literatures <br> 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. Students must enter the University under the Spanish premajor code (11050). 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. Complete a minimum of 30 transferable semester units;
c. Have a cumulative GPA and SDSU GPA of 2.50 or higher;

## Spanish

## In the College of Arts and Letters

d. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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.

## Spanish Major

## With the B.A. Degree in Liberal Arts and Sciences

 (Premajor Code: 11050) (Major Code: 11051)All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 49 units in Spanish courses can apply to the degree.

Students majoring in Spanish must complete a minor in another field approved by the departmental adviser in Spanish.

Preparation for the Major. Spanish 101, 102, 103, 202, 211, and 212. Spanish 281 replaces 103 and 211 and Spanish 282 replaces 202 and 212 for U.S. Hispanics. 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)

Foreign Language Requirement. The foreign language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 27 upper division units in Spanish to include Spanish 301, 302 (Spanish 381 replaces 301 and 302 for Spanish speakers); six units selected from Spanish 405A, 405B, 406A, 406B; Spanish 340 or 341 or 342 ; Spanish 448 or 549 ; Spanish 350; two electives from 300 to 500 level Spanish courses. At least 15 upper division units must be taken in residence at SDSU. Students who have successfully completed courses for upper division credit may not receive credit for lower division courses.

## Spanish Major

## In preparation for the Single Subject Teaching Credential in Foreign Languages

## With the B.A. Degree in Liberal Arts and Sciences

## (Premajor Code: 11050) (Major Code: 11051)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education. For students completing the single subject teaching credential program, no more than 52 units in Spanish courses can apply to the degree.

This major may be used by students in policy studies or teacher education as an undergraduate major for the B.A. degree in liberal arts and sciences. A minor in another field approved by the departmental adviser in Spanish is required for the degree.

Preparation for the Major. Spanish 101, 102, 103, 202, 211, and 212. Spanish 281 replaces 103 and 211 and Spanish 282 replaces 202 and 212 for U.S. Hispanics. 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)

Foreign Language Requirement. The foreign language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 30 upper division units in Spanish to include Spanish 301, 302 (Spanish 381 replaces 301 and 302 for Spanish speakers); six units selected from 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 must be taken in residence at SDSU. Students who have successfully completed courses for upper division credit may not receive credit for lower division courses.

## Spanish Minor

The minor in Spanish consists of a minimum of 18-19 units, at least twelve of which must be in upper division Spanish courses.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

## Certificate in Translation Studies

The Department of Spanish and Portuguese Languages and Literatures offers a Certificate in Translation Studies. The certificate requires 15 units in Spanish dealing with translation theory, nonliterary and literary translation, from Spanish to English and from English to Spanish.

A prospective candidate for the certificate should possess a bilingual facility in Spanish and English. The student must complete with a grade of B or better Rhetoric and Writing Studies 305W (or pass the University Upper Division Writing Competency Examination), and Spanish 301,302 , and 350 prior to starting work on the certificate.

After meeting the basic requirements for admission, the student must complete with a GPA of 3.0 or better 15 units to include Spanish 491, 492, 493, 556, and three units from Spanish 307, 495, 497, or either 499 or 596 when offered with appropriate certificate-related content.

Upon completing the 15 units of coursework, the student must take a departmental examination for the certificate. Upon successful completion of the examination, the student will be awarded the certificate. 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 15 units in Spanish dealing with problems of court interpreting and includes interpreting from Spanish to English and from English to Spanish.

A prospective candidate for the certificate should possess a bilingual ability in Spanish and English. The student must complete with a grade of B or better Rhetoric and Writing Studies 305W (or pass the University Upper Division Writing Competency Examination), and Spanish 301,302 , and 350 prior to starting work on the certificate.

After meeting the basic requirements for admission, the student must complete with a GPA of 3.0 or better 15 units to include Spanish 491, 492, 493, 556, and 499 (when offered as a translation-court interpreting practicum).

Upon completing the 15 units of coursework, the student must take a departmental examination for the certificate. Upon successful completion of the examination, the student will be awarded the certificate. Courses in the certificate may not be counted toward the major or minor in Spanish.

## Foreign Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Spanish to fulfill the foreign language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Spanish 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 foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first two years of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.
2. The first three years of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.
3. Four years of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the foreign language requirement.

Students entering San Diego State University with five or six years of high school Spanish may enroll in Spanish 202; the department recommends, however, that they take Spanish 301.

## 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 foreign 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)

## 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.
101. Introduction to Spanish I (4)

Four hours of lecture plus laboratory.
Pronunciation, oral practice, readings on Hispanic culture and civilization, essentials of grammar. Not open to students who have completed three years of high school Spanish unless the third course was completed five or more years ago. Not open to students with credit in Spanish 102, 103 or 202.

## 102. Introduction to Spanish II (4)

Four hours of lecture plus laboratory.
Prerequisite: Spanish 101 or two years of high school Spanish.
Continuation of Spanish 101. Not open to students who have completed four years of high school Spanish unless the fourth course was completed five or more years ago. Not open to students with credit in Spanish 103 or 202 or higher.

## 103. Introduction to Spanish III <br> (4)

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 or higher.
202. Intermediate (4) I, II, S

Prerequisite: Spanish 103.
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.
211. Intermediate Conversation and Reading (3) I, II, S

Prerequisite: Spanish 102.
Emphasis on oral communication and reading comprehension through intermediate level cultural materials. Some writing will be adjunct to reading. Conducted in Spanish. May be taken concurrently with Spanish 103.

## 212. Intermediate Conversation and Writing (3) I, II, S

Prerequisite: Spanish 103 or 211.
Emphasis on oral communication and intermediate level writing in Spanish. Conducted in Spanish. May be taken concurrently with Spanish 202.

## 281. Intermediate Spanish for U.S. Hispanics (3)

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 or 211 or higher numbered Spanish courses. Replaces Spanish 103 and 211 for Preparation for the Major.

## 282. Intermediate Spanish for U.S. Hispanics (3)

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 or 212 or higher numbered Spanish courses. Replaces Spanish 202 and 212 for Preparation for the Major.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 299. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

 (Intended for Undergraduates)All upper division courses in Spanish are taught in Spanish unless otherwise stated.

No credit will be given for lower division courses taken after successfully completing any upper division Spanish course.
301. Advanced Conversation and Reading (3)

Prerequisites: Spanish 202 and 212.
Continued development of oral communication and reading comprehension. Review of selected grammatical structures through use of literary and cultural materials. Some writing will be adjunct to reading. Conducted in Spanish. May be taken concurrently with Spanish 302. Not open to students with credit in Spanish 381.

## 302. Advanced Conversation and Writing (3)

Prerequisites: Spanish 202 and 212.
Advanced practice at oral communication through conversations and public speaking. Practice of written Spanish through advanced composition. Conducted in Spanish. May be taken concurrently with Spanish 301. Not open to students with credit in Spanish 381.
307. Introduction to Commercial Spanish (3) I

Prerequisite: Spanish 301, 302, or 381.
Terminology and forms of business correspondence and documents.

## 340. Spanish Civilization (3)

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.

## 341. Spanish American Civilization (3)

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.

## 342. Mexican Civilization (3)

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.

## 350. Advanced Grammar (3)

Prerequisites: Spanish 301 and 302 or 381.
Significant systematic features of modern Spanish grammar. Required for credential applicants.
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.

## 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).
405A-405B. Survey Course in Spanish Literature (3-3)
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.

## 406A-406B. Survey of Spanish American Literature (3-3)

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.

## 448. Spanish Linguistics (3) I, II, S

Prerequisite: Spanish 350.
Structural, historical, and applied Spanish linguistics.
491. Introduction to Translation Studies (3) I

Prerequisites: Spanish 350 and satisfaction of the University Upper Division Writing requirement.

Theoretical grounding and practical problems of literary and nonliterary translation; linguistic and cultural obstacles; literary, legal, commercial, medical, social services lexicons in context.

## 492. Translation Theory (3)

Prerequisite: Spanish 491.
Historical overview of translation theory. Translation types and conventions. Theoretical considerations of lexical, morphological, verbal, phonic, syntactic, and hermeneutic elements. Cross-language equivalence, fidelity, loss and gain in translation. Criteria for excellence and evaluation. Culture and commerce of translation.

## 493. Advanced Spanish-English/English-Spanish

 Translation (3) I, IIPrerequisites: Spanish 350 and 491.
Practicum involving methods and techniques in translation of legal or government papers, banking documents, and business contracts from Spanish into English and from English into Spanish. Practice in translation of old Spanish into English (deeds, surveys, baptismal records, manuscripts of books).

## 495. Internship in Translation and Interpretation (3) I, II

Prerequisites: Spanish 491 and consent of instructor.
Students selectively assigned to legal firms, medical facilities, commercial establishments or public offices that deal routinely with English and Spanish translation and interpretation. Students work 15 hours weekly under joint supervision of site coordinators and instructor. Maximum credit six units.

## 496. Selected Studies in Spanish (3)

Topics in Spanish or Spanish American language, literature, culture and linguistics. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

## 497. Advanced Commercial Spanish (3) II

Prerequisites: Six units from Spanish 301, 302, or 381 and Spanish 307.

Terminology and techniques used in commercial transactions, including interpretation and writing of business materials.
499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units. This course is intended only for students who are currently enrolled in or who already have credit for all upper division courses in Spanish available in any given semester.

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

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.
502. Genre Studies in Spanish American Literature

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.

## 510. History of Spanish Language (3) II

Prerequisite: Upper division or graduate standing.
Evolution of Spanish language from its origins to present day. General notions of structures of Latin. Sound changes, morphosyntactic changes, semantic and lexical changes in Spanish. Origins of diversity of modern Spanish dialects.

## 515. Mexican Literature (3)

Prerequisites: Spanish 406A-406B.
Mexican literature from the Romantic period to the present. Special emphasis placed on contemporary era.
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.

## 549. Spanish Phonetics and Phonology <br> (3) I

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.

## 556. Translation of Literary Works: A Critical Comparison

Prerequisite: Spanish 493.
Techniques and methods of translating literary texts from English to Spanish and Spanish to English; textual and stylistic problems in different periods, genres, and dialects, with emphasis on contemporary literature.
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.
561. Methods in Teaching Spanish as a Second Language

Prerequisite: Spanish 350 or 448.
Teaching of Spanish as a second language: contemporary theory and methods. Not open to students with credit or concurrent enrollment in French 561.

## 570. Discourse Analysis of Spanish (3)

Prerequisites: Spanish 350 and Rhetoric and Writing Studies 305W with a grade of $B$ (3.0) or better.

Analysis of oral Spanish discourse. Key strategies for collecting and analyzing Spanish data.
572. Spanish American Theatre (3) (Offered only at IVC)
Prerequisites: Spanish 406A-406B.
Principal Spanish American dramatists and movements. Special emphasis on contemporary era.

## 581. Mexican Sociolinguistics (3)

Prerequisites: Spanish 350; and Spanish 448 or 549.
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.

## 582. Sociolinguistics of U.S. Spanish (3)

Prerequisites: Spanish 350; and Spanish 448 or 549.
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.

## 594A. Consecutive English/Spanish Interpretation <br> (3)

Prerequisites: Spanish 350, 391, and Rhetoric and Writing Studies 305 W with a grade of $B(3.0)$ or better.

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.

594B. Simultaneous English/Spanish Interpretation (3)
Prerequisite: Spanish 594A with a grade of $\mathrm{B}(3.0)$ 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.

## 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 Bulletin of the Graduate Division.

# Special Education 

OFFICE: North Education 70 TELEPHONE: (619) 594-6665
WEB SITE: edweb.sdsu.edu/sped/sped.html

Accredited by the California Commission on Teacher Credentialing.

## Faculty

Emeritus: Brady, Doorlag, Forbing, McClard, Singer
Chair: Cegelka
Professors: Cegelka, Graves, Hall, Kitano, Lewis, Lynch
Associate Professor: Valles
Assistant Professors: Alvarado, Johnson, McIntosh

## Offered by the Department

Master of Arts degree in education.
Education specialist credentials in special education.
Certificate in bilingual (Spanish) special education (refer to Bulletin of the Graduate Division).
Certificate in developing gifted potential (refer to Bulletin of the Graduate Division).
Certificate in early childhood special education (refer to Bulletin of the Graduate Division).
Certificate in teaching the emotionally disturbed/behaviorally disordered (refer to Bulletin of the Graduate Division).
Resource specialist certificate of competence (refer to Bulletin of the Graduate Division).

## Courses (SPED)

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

397. Problems in Education (Credit to be arranged) I, II (Offered only in Extension)
Prerequisite: Consent of instructor.
Class study of specially selected problems in education. Does not apply to pattern requirements for credentials. Credit earned in this course not applicable to a bachelor's degree.
398. Classroom Adaptations for Special Populations

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.
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.
496. Selected Topics in Special Education (1-4) I, II, S

Prerequisite: Consent of instructor.
Instructional sequences focusing on a single topic or competency dealing with special education. Topics differ each semester to adjust to current literature in the field, training needs, and resource availability. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.
499. Special Study (1-3) I, II

Prerequisite: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.

Individual study. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

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.

## 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.
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
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.

## 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.

## 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.

## 524. Characteristics of Students with Mild/Moderate Disabilities (3) I

Prerequisite: Special Education 500.
Historical and philosophical perspectives of programs related to students with mild/moderate disabilities. Research on educational programs, curricular approaches, and characteristics.

## 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.

## 526. Characteristics and Education of Students with Physical,

 Health, and Sensory ImpairmentsPrerequisite: 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.

## 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.
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.

## 529. Characteristics and Education of Students with Serious

 Emotional Disturbances (3) IPrerequisites: Special Education 500 and 501.
Historical and philosophical perspectives of programs for students with emotional disturbances and behavior disorders, including review of research on student characteristics, educational programs, and curricular approaches.

## 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.

## 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.

## 560. Applications of Technology for Individuals with Disabilities (3) I, II

Prerequisite: 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.
570. Individualized Special Education Program Plans (1)

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.

## 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 Bulletin of the Graduate Division.

# Speech, Language, and Hearing Sciences 

In the College of Health and Human Services

OFFICE: Communications Clinic 118
TELEPHONE: (619) 594-6774
FAX: (619) 594-7109

Accredited in speech-language pathology and 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: Davies, Earnest, Kopp, Nichols, Riedman, Thile, Williams Director: Newhoff
Professors: Allen, Cheng, Christensen, Gutierrez-Clellen, Kramer, Newhoff, Robin, Seitz, Shapiro, Thal, Wulfeck
Associate Professors: Barlow, Mackersie
Assistant Professor: Hawe
Lecturers: Branch, Fischer, Kane, Launer, Lopes, Roth, Smith
Adjunct: Boothroyd, Kryter, Sandlin, Singh

## Offered by the School

Doctor of Philosophy degree in language and communicative disorders.
Master of Arts degree in communicative disorders.
Major in communicative disorders with the B.A. degree in liberal arts and sciences.
Minor in communicative disorders.
Certificate in bilingual speech-language pathology (refer to Bulletin of the Graduate Division).
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 communicative disorders majors cover a set of general studies in early coursework ( 21 units) before specialization (29 upper division units). Students interested in the communicative disorders program are advised to take college level courses in anatomy, biology, psychology, English, physiology, linguistics, physics, and mathematics. Studies leading to private practice, hospital work, industrial work, work in school settings, or preparation for the master's degree are similar in many ways; it is the area of specialization that serves to differentiate courses of study.

The communicative disorders minor is open to all majors but is strongly recommended for those in special education or the social and behavioral sciences who wish to broaden their competencies in a related applied discipline.

The master's degree is an advanced degree for those wishing to work professionally as a speech-language pathologist, speech and hearing scientist, audiologist and/or deaf educator.

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.

## Communicative Disorders 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, plus at least one upper division University honors course. No more than three units of honors courses may apply towards the required 29 units for the communicative disorders undergraduate major.

## Communicative Disorders Major

With the B.A. Degree in Liberal Arts and Sciences (Major Code: 12201)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 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, 205; 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. Recommended: Physics 201. (19-32 units)

Foreign 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 this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. 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 communicative disorders major are as follows:
(a) Audiology. Speech, Language, and Hearing Sciences 300, $320,321,322,323,340,340 \mathrm{~L}, 511,512,513,580$, 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 . ( 38 units)
(b) Education of the Deaf. Speech, Language, and Hearing Sciences 300, 322, 340, 340L, 350, 357 ( 2 units), 511, 513, 550, 558, 562; Special Education 500, 501, 502. (34 units)
(c) Speech-Language Pathology. Speech, Language, and Hearing Sciences 300, 320, 321, 322, 323, 340, 340L, 503, 511, 512, 513, 514, 580 . (38 units)

Students pursuing a graduate degree should consult the Bulletin of the Graduate Division 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.

## Communicative Disorders Minor

The minor in communicative disorders consists of 22 units in speech, language, and hearing sciences to include Speech, Language, and Hearing Sciences 106, 205, 300, 320, 321, 340*, and one of the following: Speech, Language, and Hearing Sciences 323 or 350.

Prerequisites for the minor include Psychology 101 and 260. (6 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.

[^26]
## 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 (Credential Code: 00461)

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 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 Language, Speech and Hearing (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 communicative disorders 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 Speech-Language 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, 626, 627, 929, and 933.
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 and 75 semester units (at least 27 of the 75 semester units must be in basic science coursework, and at least 36 of the 75 semester units must be in professional coursework). At least 30 of the 36 professional coursework units must be in courses for which graduate credit was received. A minimum of 21 of the 30 units must be completed at the graduate level in the professional area for which the certificate is sought. The certificate requires 375 clock hours of supervised clinical observation (25 hours) and clinical practicum (350 hours), and at least 250 or the 350 clock hours must be in the professional area for which the certificate is sought while the applicant is engaged in graduate study. Clock hours must satisfy designated categories for age span, types of disorders, assessment and intervention. 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 communicative disorders 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). 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 $340 \mathrm{~L}, 357,525,541,545,556$ are required to purchase professional liability insurance.

## Courses (sLhs)

## LOWER DIVISION COURSES

## 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.)
159. American Sign Language I
(4)

Introduction to American Sign Language syntax, semantics, and use. Development of beginning level communicative competence. (Formerly numbered Communicative Disorders 159.)
205. Introduction to Audiology and Hearing Science (3)

Prerequisite recommended: Physics 201.
Introduction to profession of audiology, anatomy, and physiology of hearing mechanism, physics of sound and decibel, understanding audiogram, introduction to diagnostic audiology and aural pathologies. (Formerly numbered Communicative Disorders 205.)

## 259. American Sign Language II (4)

Prerequisite: Speech, Language, and Hearing Sciences 159.
Intermediate level communicative competence in American Sign Language (ASL) is developed. (Formerly numbered Communicative Disorders 259.)

## 289. American Sign Language III (4)

Prerequisite: Speech, Language, and Hearing Sciences 259.
Development of advanced communicative competence in American Sign Language (ASL). (Formerly numbered Communicative Disorders 289.)

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES (Intended for Undergraduates)

## 300. Introduction to Language Science (3)

Structure, acquisition, processing, and neurological organization of language in typical and disordered communication. (Formerly numbered Communicative Disorders 300.)

## 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.)
321. Anatomy, Neurology, and Physiology of Speech (4)

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.)

## 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.)

## 323. Introduction to Speech Science (3)

Prerequisite: Credit or concurrent registration in Speech, Language, and Hearing Sciences 106. Recommended: Speech, Language, and Hearing Sciences 321, Physics 201, Psychology 260.

Basic concepts of speech science, laboratory methods, and data concerning speech acoustics, physiological phonetics, speech production theory, and speech perception. (Formerly numbered Communicative Disorders 323.)

## 340. Principles of Audiology (3)

Prerequisites: Speech, Language, and Hearing Sciences 205, Psychology 260, and concurrent registration in Speech, Language, and Hearing Sciences 340L. Recommended: Physics 201.

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.)

## 340L. Techniques of Audiometry (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.)

## 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.)

## 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.)

## 491. Honors Special Study (3)

Prerequisites: Junior standing and formal admission to communicative disorders 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.)

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.)
492B. Honors Project and Symposium Extension (3) $\mathbf{C r} / \mathbf{N C}$
Prerequisite: Speech, Language, and Hearing Sciences 492A.
Completion and presentation of research project for the honors program. (Formerly numbered Communicative Disorders 492B.)
496. Topics in Speech, Language, and Hearing Sciences (1-3)

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.
499. Special Study (1-3)

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

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.)
511. Pediatric Aural Rehabilitation (3)

Prerequisites: Speech, Language, and Hearing Sciences 320, 323, and 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.)
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. Six hours observation required. (Formerly numbered Communicative Disorders 512.)
513. Language Development and Disorders in 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. Six hours observation required. (Formerly numbered Communicative Disorders 513.)

## 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. Four hours observation required. (Formerly numbered Communicative Disorders 514.)
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.)

## 525. Clinical Processes (1-2)

Two to four hours of clinical practica and grand rounds attendance once per month.

Prerequisite: Consent of instructor.
Topics, observation, and experience related to practice of speechlanguage pathology. Maximum credit five units. (Formerly numbered Communicative Disorders 525.)

## 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.)

## 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.)

## 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.)

## 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.)
558. ASL Structure and Acquisition (3)

Prerequisites: Speech, Language, and Hearing Sciences 289, 350; Linguistics 452.

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 and 558.)

## 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.)

## 570. Dysphagia (3)

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.)

## 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.)
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.)

## 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
Refer to Bulletin of the Graduate Division.

# Statistics 

## OFFICE: Geology/Mathematics/Computer Science 413 TELEPHONE: (619) 594-6191

## Faculty

Emeritus: Bell, Burdick, Macky, Moser, Park, Romano
Chair: Lesley
Coordinator for Statistics: Steffey
Professor: Lui
Associate Professors: Kelly, Steffey
Assistant Professors: Fan, Levine, Lin
Lecturers: 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.
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.

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.

## 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 an upper division writing 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. (25 units)

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of $C$ (2.0) or better.

Major. A minimum of 36 upper division units to include Statistics 350A, 350B, 510, 551A, 551B, 560; six units selected (with the approval of the undergraduate adviser in statistics) from Statistics $325,496,520,550,570,575,596 ; 12$ 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).

## 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. ( 34 units) The student must complete these courses before being allowed to register for the upper division finance courses.

Upper Division Writing Requirement. Passing the University Writing Examination or completing one of the approved writing courses with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Statistics 350A, 350B, 551A, 551B, 575; Economics 320, 321; Finance 323, 327; six units from Statistics 325, 496, 510, 520, 550, 560, 570, 596; three units from Finance 329, 421, 427; Mathematics 580. Students must complete outline for major and file a copy signed by adviser 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 calculus 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)

(Intermediate algebra is prerequisite to all statistics courses.)

## 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.

## 119. Elementary Statistics for Business (3) I, II, S

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA.

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; Biology 215; Civil Engineering 160; Economics 201; Political Science 201; Psychology 270; Sociology 201.

## 250. Statistical Principles and Practices (3) I, II

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA.

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; Biology 215; Civil Engineering 160; Economics 201; Political Science 201; Psychology 270; Sociology 201.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 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.

## 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.

## 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 correlation. Chi-square tests. Simple nonparametric tests. Power of hypothesis tests.

350B. Statistical Methods (3) II
Prerequisite: Statistics 350A
Multiple regression, factorial models and nonparametric methods, all with emphasis on applications.

## 357. Probability and Statistics (3) I, II

Prerequisite: Mathematics 150.
Probability, measures of central tendency and dispersion, characteristics of frequency functions of discrete and continuous variates; applications. Highly recommended for all prospective secondary school teachers of mathematics.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

## (Also Acceptable for Advanced Degrees)

NOTE: Proof of completion of prerequisites required for all upper division courses: Copy of transcript.

## 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. (Formerly numbered Statistics 554A.)

## 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. (Formerly numbered Statistics 554B.)

## 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.

## 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.
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.
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. (Formerly numbered Statistics 552.)

## 570. Stochastic Processes (3)

Prerequisite: Statistics 550 or 551A.
Introduction to stochastic processes with selected applications. (Formerly numbered Statistics 553.)

## 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.

## 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 Bulletin of the Graduate Division.
## Teacher Education

In the College of Education

SCHOOL OF TEACHER EDUCATION: Education 100 TELEPHONE: (619) 594-6131 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, Anderson, Baker, Bee, Berg, Blanc, Botkin, Briggs, Burnside, Campbell, Charles, Curry, Duckworth, Elliott, Erickson, Ford, Gast, Gates, Gega, Goodson, Gray, Groff, Hill, Ingmanson, Inskeep, Kaatz, Kendall, Klann, McCoy, Mehaffy, Moreno, Murphy, Nagel, T., Pehrson, Person, Platz, Prouty, Reel, Retson, Riggs, Rixman, Ross, R., Rowland, Shaw, Stautland, Steckbauer, Strand, Tossas, Wilding, Yesselman

## Interim Director: Santa Cruz

Professors: Bezuk, Cornejo, Evans, Farnan, Fearn, Flood, Kelly, Lapp, Mason, Mathison, McCormack, Mikitka-Gomez, Moss, Pang, Philipp, Ross, P., Strom, Treadway
Associate Professors: Fisher, Gallego, Garrison (IVC), Gibson, Grisham, Jacobs, Lujan, Mora, Neumann (IVC), Nieto, Park, Pohan, Santa Cruz, Tran, Yerrick
Assistant Professors: Alger, Arquette (IVC), Branch, Cappello, Chizhik, A., Chizhik, E., Clement, Darby, Feiler, Frey, Gibson, Masarik, Phan, Ross, D.
Lecturers: Bippert, Bjornson, Blakeslee, Nagel, A., Telfer, Treger, Tremaine, Van Dyke, Zozakiewicz

## 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.
Certificate in children's literature.

## 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 $\mathrm{K}-12$, and in classes organized primarily for adults (classrooms in which one teacher is responsible for all the subjects commonly taught). Recommendation for this credential requires:

1. A baccalaureate or higher degree.
2. Completion of an approved program of professional education, including student teaching and coursework in reading methods with a grade point average of 3.0 or higher.
3. Basic skills competency as demonstrated through passing scores on the California Basic Educational Skills Test (CBEST).
4. Demonstrated subject matter competency through completion of an approved waiver program--Liberal Studies or passing scores on the Multiple Subjects examination of the California Subject Examinations for Teachers (CSET). Must have scores taken within five years prior to recommendation.
5. Demonstrated knowledge of the principles and provisions of the United States Constitution through successful completion of a three-unit collegiate-level course or examination. (Courses are listed in the section of this catalog on "Graduation Requirements," IV. American Institutions Requirement, B.2. United States Constitution.)
6. Basic competency in the instruction of reading as demonstrated through passing scores on the Reading Instruction Competence Assessment (RICA).
7. Current certification in cardiopulmonary resuscitation (CPR).

NOTE: Undergraduate students in the Multiple Subject credential program may register for concurrent postbaccalaureate credit in their final semester prior to obtaining a baccalaureate degree as explained in the section of this catalog on "General Regulations."

## Admission Standards and Qualifications for the Multiple Subject Credential Program

Candidates for the Multiple Subject Credential Program must satisfy the standards and qualifications listed below and submit complete application packets to the School of Teacher Education, ED 100. 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 verify completion of subject matter competency in diversified subjects commonly taught in self-contained classrooms prior to admission to the Multiple Subject Credential Program. This may be done through successful completion of the Liberal Studies major or its equivalent at another California teacher-training institution or passing scores on the California Subject Examinations for Teachers (CSET). Test scores submitted for verification of subject matter competency are valid for five years from the date of the examination and must be valid at the time of recommendation for the credential. Registration information and materials for the CSET are available in the lobby of the Education building.
3. Prerequisite Courses. These courses or approved equivalents must be completed with grades of "C," "CR," or higher no more than five years prior to admission to the Multiple Subject Credential Program. The courses may be in progress at the time of program application.
a. Education 451, "Introduction to Multicultural Education." This course provides an introduction to ethnicity, language, and culture in education, particularly the ways in which those factors differentially affect educational outcomes for children. The course assists in preparing teacher applicants to work with students from diverse backgrounds by examining both societal and personal belief systems and the ways that those beliefs are expressed in public school classrooms.
b. Mathematics 210, "Number Systems in Elementary Mathematics." This course covers pre-number concepts; development of whole numbers, integers, and their operations; number theory; geometric concepts of two and three-dimensional spaces; problem-solving strategies. With approval of the mathematics adviser, any of the following courses may be substituted for Mathematics 210: Mathematics 121, 150, 312.
c. Health and Human Services 296, "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.
d. 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.

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 2.75 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. In lieu of the actual Certificate of Clearance or copy of a valid credential, candidates may submit their clearance application packets and fees concurrently with program applications.
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://www.edweb.sdsu.edu/STE/STE.html. 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).

Further information on the personal narrative is available in the School of Teacher Education, ED-100.
10. Experience Learning a Second Language. Six semester units of college coursework in a second language or equivalent experience such as three years of high school foreign language, Peace Corps training and service or residence in a non-English speaking country.
11. 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, ED-100, (619) 594-6131. All candidates are urged to attend one of the regularly scheduled group advising sessions prior to making an individual appointment.

## Multiple Subject Required Courses

Classoom Management Skills
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 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
TE 966
Advanced Student Teaching in Elementary Schools Cr/NC. 8
ED 516 Foundations of Bilingual Education. .....  1
EDTEC 470 Technologies for Teaching. .....  3

PLC 915A Teaching and Learning in the Content Area: English Language Development/SDAIE .................. 3

Total Units 44

## 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 $\mathrm{K}-12$, 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 (pending approval)
English: Communication, Comparative Literature, English, Journalism, Linguistics, Theatre
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, ED-100, 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 three-unit collegiate-level course or examination. (Courses are listed in the section of this catalog on "Graduation Requirements," IV. American Institutions Requirement, C.b.2.)
6. Basic competency in the instruction of reading as demonstrated through passing scores on the Reading Instruction Competence Assessment (RICA).
7. 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, ED-100. 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 Test Office, SS-2549. Candidates are urged to take this examination as early as possible. Candidates are required to submit a photocopy of the individual score reports.
2. Subject Matter Competency. Students must verify competency in a specified single subject area through a university assessment process which consists of reviewing coursework for completion of an approved teaching major or its equivalent at San Diego State University or another approved California teachertraining 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, ED-100.
3. Prerequisite Courses. These courses or approved equivalents must be completed with grades of "C," "CR," or higher no more than five years prior to admission to the Single Subject Credential Program. The course may be in progress at the time of program application.
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 296, "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 2.75 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 $\mathrm{K}-12$ California credentials may satisfy this requirement by submitting copies of those certificates. In lieu of the actual Certificate of Clearance or copy of a valid credential, candidates may submit their clearance application packets and fees concurrently with program applications.
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:// www.edweb.sdsu.edu/STE/STE.html. 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).
Further information on the personal narrative is available in the School of Teacher Education, ED-100.
10. Experience Learning a Second Language. Six semester units of college coursework in a second language or equivalent experience such as three years of high school foreign language, Peace Corps training and service or residence in a non-English speaking country.
11. 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, ED-100, (619) 594-6131. 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 $\qquad$ 3-4 |
| TE 933 | Teaching of Reading in the Secondary School ............ 3 |
| TE 954 | Humanistic and Social Aspects of <br> Teaching $\qquad$ |
| TE 963 | Secondary School Student Teaching I <br> Cr/NC/RP $4$ |
| TE 964 | Secondary School Student Teaching II Cr/NC/RP $\qquad$ 12 |
| ED 516 | Foundations of Bilingual Education ........................... 1 |
| EDTEC 470 | Technologies for Teaching ....................................... 3 |
| PLC 915B | Teaching and Learning in the Content Area: <br> English Language Development/SDAIE $.3$ |

Total Units $\overline{38-39}$

## 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.

## 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 ProgramsA 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 Office, ED-151.

## Description of Interdepartmental Major for Elementary Teaching

## Liberal Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Premajor Code: 49012) (Major Code: 49015)
All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.
The Liberal Studies major meets all the requirements for the multiple subject/diversified major as specified for the Multiple Subject credential.

Refer to the section of the catalog on "Liberal Studies" for an outline of the requirements for this major.

The following coursework is required for acceptance into the education program and may be included in the Liberal Studies major unless otherwise noted:

Education 451
Mathematics 210
Other students who wish to take this major must consult the Dean of the Division of Undergraduate Studies to secure program approval.

General advising for the Liberal Studies major is available at the Academic Advising Center.

## Children's Literature Certificate

This certificate attests that the student has successfully completed 18 units (minimum GPA 3.0) of planned, advised, coherent, and articulated study in the field of literature for children. Prerequisites include admission to the University and to upper division or graduate standing. The Certificate in Children's Literature may be earned with a specialization either in Education or in English and Comparative Literature. Nine units in the certificate program may be counted toward the major in English, and six units may be counted toward the minor in English.

Specialization in Education. Nine units from courses in group A, six units from group B, and three units of an appropriate elective chosen with the approval of a faculty adviser.

Specialization in English and Comparative Literature. Nine units from courses in group B, six units from group A, and three units of an appropriate elective chosen with the approval of a faculty adviser.

Group A, Education: Educational Technology 596; Teacher Education 496*, 530.

Group B, English and Comparative Literature: Comparative Literature 561 (when offered as European Children's Literature); English 496*, 501, 526*, 527*, 528*, 549*

* With adviser's permission when the subject is closely related to children's literature.


## Courses (TE)

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 COURSE

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES <br> (Intended for Undergraduates)

303. The Teaching Profession: First Clinical Experience (4) (Offered only at IVC)
Three lectures and three hours of laboratory.
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.
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.
397. Problems in Education (Credit to be arranged) I, II (Offered only in Extension)
Prerequisite: Consent of instructor.
Class study of specially selected problems in education. Does not apply to pattern requirements for credentials. Credit earned in this course not applicable to a bachelor's degree.

## 402. Foundations of Education <br> (3) I, II <br> (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.

## 415. Methods and Materials of Instruction <br> (3) I, II <br> (Offered only at IVC)

Prerequisites: 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.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.

Individual study. Maximum credit six units.

## UPPER DIVISION COURSES <br> (Also Acceptable for Advanced Degrees)

## 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.
526. Teaching the Special Child in the Regular Classroom (2)

Prerequisite: Teaching credential or admission to multiple or single subject credential programs.

Knowledge, skills, and instructional programs for teaching handicapped students in the regular classroom. Meets the mainstreaming requirements for the California Multiple Subject credential (clear). Not open to students with credit in Special Education 550, Teaching the Special Child in the Regular Classroom.

## 530. Children's/Adolescents' Literature (3) I, II

Survey of children's/adolescents' literature and its incorporation into the classroom curriculum.
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.

[^27]GRADUATE COURSES Refer to Bulletin of the Graduate Division.

# Theatre,Television, and Film 

In the College of Professional Studies and Fine Arts

OFFICE: Dramatic Arts 204
TELEPHONE: (619) 594-6363
FAX: (619) 594-7431
WEB SITE: theatre.sdsu.edu

Accredited by the National Association of Schools of Theatre.

## Faculty

Emeritus: Anderson, Annas, Harvey, A.C., Harvey, M., Heighton, Howard, Jameson, Johnson, Jones, Lee, Madsen, Meador, Real, Stephenson, Witherspoon, Wylie
Director: Reid
The Don W. Powell Chair in Scene Design: Funicello
Filmmaker in Residence: Ofield
Professors: Blue, Durbin, G., Larlham, P., McKerrow, O'Donnell, Ofield, Reid, Salzer, Wolf
Associate Professors: Kalustian, Reinholz, Schreiber
Assistant Professors: Cirino, Durbin, H., Freeman, Larlham, M., Morrison
Lecturers: Keith, MacDougall, 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.
Teaching major in theatre arts for the single subject teaching credential in English.
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

With the exception of the Theatre Arts major in preparation for the Single Subject Teaching Credential in English, programs in the School of Theatre, Television, and Film are impacted. Students must enter the University under the designated premajor or major code for selected program. To be admitted to the selected program, refer to the program description for specific impacted criteria.

## Theatre Arts Major

With the B.A. Degree in Applied Arts and Sciences

## (Premajor Code: 10070) (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. Students must enter the University under the theatre arts premajor code (10070). 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. Complete a minimum of 30 transferable semester units;
c. Have a cumulative GPA and SDSU GPA of 2.40 or higher; and
e. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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, 240A, 240B, 240C. (27 units)

Upper Division Writing Requirement. Passing the University Writing Examination or Rhetoric and Writing Studies 305W or 500W with a grade of $C$ (2.0) or better.

Major. A minimum of $42-43$ upper division units in theatre to include Theatre 325, 359, 425, 442A, 442B, 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, 543, 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)

Upper Division Writing Requirement. Passing the University Writing Examination or Rhetoric and Writing Studies 305W or 500W with a grade of $C$ (2.0) or better.

Major. A minimum of 39 upper division units in theatre to include Theatre 310, 315, 325, 359, 425, 442A, 442B, 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)

Upper Division Writing Requirement. Passing the University Writing Examination or Rhetoric and Writing Studies 503W with a grade of $C$ (2.0) or better.

Major. A minimum of 42 upper division units in theatre to include Theatre 325, 359, 425, 440, 442A, 442B, 446A (one unit), 446B (one unit), 447, 452, 460A, 460B, 530; and three units selected from Theatre 448,540,547,548,552; and six units selected from Theatre 349, 539, 541,543, 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. Theatre 100, 107, 130, 240A, 240B, 240C. (18 units)

Upper Division Writing Requirement. Passing the University Writing Examination or Rhetoric and Writing Studies 503W with a grade of C (2.0) or better.

Major. A minimum of 52 upper division units in theatre to include Theatre 325, 359, 425, 440, 442A, 442B, 446A (one unit), 446B (one unit), 447, 452, 460A, 460B, 530; Television, Film and New Media 320, 350, 550; and six units selected from Theatre 448, 540, 547, 548, 552, Television, Film and New Media 401, 551; and four units selected from Theatre 539, 541, 543, 545, 546, 549, 550, 554A, 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, 240A, 240B, 240C. (27 units)

Upper Division Writing Requirement. Passing the University Writing Examination or Rhetoric and Writing Studies 305W or 500W with a grade of $C$ (2.0) or better.

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 555; 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.

## Theatre Arts Major

In preparation for the Single Subject Teaching Credential in English With the B.A. Degree in Applied Arts and Sciences

## (Major Code: 10071)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education.

This major may be used by students in policy studies or teacher education as an undergraduate major for the B.A. degree in applied arts and sciences.

Preparation for the Major. Theatre 100 or 120, 107, 240A, 240B; Linguistics 101; Comparative Literature 270A or 270B or English 220; Humanities 140; Rhetoric and Writing Studies 100 and 200; Communication 200; and three units selected from Theatre 130, English 280, 281, or Journalism 220; and six units from one of the following sequences: English 250A and 250B or English 260A and 260B. Theatre 100 or 120 and 107 must be taken early in the student's program in order to satisfy prerequisites. (39 units)

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

Major. A minimum of 39 upper division units to include Theatre 325, 359, 425, 460A, 460B, 580, and Theatre 310 or Comparative Literature 562; English 533 and Rhetoric and Writing Studies 509; three units selected from English 522,523,524, or 525 (for those students who previously selected English 260A and 260B), or three units selected from English 560A or 560B (for those students who previously selected English 250A and 250B); and nine units selected from one of the following sequences:

Children's Drama: Theatre 315, 459, 510.
Design for Theatre: Theatre 440, 447, 452, 546, 548.
Musical Theatre: Theatre 350, 351, 355, 555.
Performance/Stage Management: Theatre 110, 231, 355 or 555, 459, 475A.

An additional six units selected from the following: Africana Studies 460, 461, 462, 463, 464; American Indian Studies 430; Chicana and Chicano Studies 335, 464; Communication 360, 371, 391, 407, 408, 491; English 519 or 520 and 541A or 541B; Linguistics 420, 530, 550.

## Television, Film and New Media Production Major

With the B.S. Degree in Applied Arts and Sciences (Premajor Code: 06050) (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 major 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 and specific criteria are used to admit to the upper division major. Students enter the University under the premajor code (06050). To be admitted to the upper division television, film and new media major code (06031) 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; and
f. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
Preparation for the Major. Theatre 100, 120; Television, Film and New Media 110, 121, 122, 123, 160; 260, 261. (27 units)

Upper Division Writing Requirement. Passing the University Writing Examination, or Communication 310W, or Rhetoric and Writing Studies 305W with a grade of C (2.0) or better.

Major. A minimum of 36 upper division units to include Television, Film and New Media 320, 327, 401, 510, 522, 560 or 561; 15 units selected from Television, Film and New Media 321, 350, 363, 364, 390, 435, 490, 499, 550, 551, 555, 562, 565; 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 (Premajor Code 06034) (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 major at SDSU (assuming continuous enrollment).

Impacted Program. The telecommunications and film emphasis is designated as an impacted program and specific criteria are used to admit to the upper division major. Students enter the University under the premajor code (06034). To be admitted to the upper division telecommunications and film major code (06033), 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. Complete a minimum of 15 transferable semester units;
e. Have a cumulative grade point average of 3.00 or higher, and
f. To gain entry into the major, students must fulfill the premajor requirements described in the catalog in effect at the time they declare the premajor at SDSU (assuming continuous enrollment).
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)

Foreign 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 section of catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Writing Examination, or Communication 310W, or Rhetoric and Writing Studies 305W with a grade of C (2.0) or better.

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, 562; 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

## LOWER DIVISION COURSES IN THEATRE (THEA)

100. Theatre and Civilization (3) 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.
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.

## 110. Voice and Speech I (3) I, II (CAN DRAM 6)

Exercises and drills to improve the quality, flexibility and effectiveness of the speaking voice leading to good usage in standard American speech.

## 115. Acting for Nonmajors <br> (3) I, II

Improvisational exercises (verbal and nonverbal) in sensory awareness, observation, concentration, listening, and response skills with application to other fields. Individual presentation techniques for the preprofessional in other disciplines. Not open to theatre arts majors.

## 120. Heritage of Dramatic Literature (3) I, II

Three lectures and attendance at selected performances.
Survey of dramatic literature from classical to the modern period, including classical, medieval, Renaissance, Restoration, neoclassical, romantic, realistic and modern plays
130. Acting I (3) I, II (CAN DRAM 8)

Development of individual's ability to express thought and emotion through effective use of the voice and body. These fundamental concepts may be applied to stage, film, and television acting.

## 231. Acting II (3) I

Prerequisite: Theatre 130.
Continuation of Theatre 130, emphasizing application of fundamental skills to problems of text analysis, subtext, playing action, characterization, and ensemble work.
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 pre-
requisites required: Copy of transcript.
Design, technical practices, and production organization for the theatre; scenery and stagecraft.
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.
240C. Theatre Design and Technology III (3)
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.
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 THEATRE <br> (Intended for Undergraduates)

## 310. Creative Drama I (3) I, II, S

Current philosophies, principles, and techniques of creative drama. Development of the individual through use of dramatic play, imaging, improvisation, and theatre games. Applicable to classroom teaching, counseling, recreation, and senior citizen programs

## 315. Theatre for Young Audiences (3) I, II

Current philosophies and practices in theatre for young audiences. Techniques of selecting and producing plays for and with youth. Theatre styles, script analysis, and functions of the production team.
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

## 325. Play Analysis (3) I, II

Prerequisites: Theatre 100, 120, 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.
329A-329B. Practicum in Theatre for Young Audiences $\mathrm{Cr} / \mathrm{NC}$ (329A: 2 units) (329B: 1unit)
Two hours of activity per unit.
Prerequisite: Theatre 315.
Practical experience in department public performances of plays for young audiences.
A. Rehearsal
B. Performance

## 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.
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.
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.
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.
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.
355. Movement for the Theatre I (2) II

Two hours of activity per unit.
Prerequisites: Theatre 332 and by audition.
Locomotor and axial body movement for the stage director and actor; introduction to mime. Relationship between body expression and character portrayal.

## 359. Directing I (3) I, II

Prerequisites: 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.

## 397. Shakespeare at the Globe: Onstage and Backstage (1-3) S (Offered only in Extension)

Study of Old Globe Theatre's annual summer Shakespeare Festival. Does not apply to undergraduate degrees or credentials.
425. Production Synthesis (3) 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.

## 431. Workshop in Improvisational Acting (3) I

Prerequisite: Theatre 332 and by audition.
Theories and principles of improvisational acting.

## 434. Audition Techniques for the Actor (3) II

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.
440. Scene Design I (3) II

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.

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.

Technical theatre production experience for departmental public performances.
A. Scenery Construction
B. Costume Construction

446A-446B. Practicum in Performance (1-1) Cr/NC I, II
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.
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.
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.

## 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.

## 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.

## 460A-460B. History of the Theatre (3-3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities. Prerequisite not required for 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.

## 465. Theatre of Diversity (3) 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.
475A. Stage Management-Theory (2) I, II
Prerequisites: Theatre 240B and 240C.
Development of the prompt script, organizational methods, and collaborative personnel interaction. Maximum credit four units.

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.
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.
496. Experimental Topics (1-4) I, II

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.
Individual study. Maximum credit six units.

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

## 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.

## 520A-520B. History of Musical Theatre (3-3) I

Prerequisite: Upper division standing.
Chronological survey of representative works from musical theatre history including major productions, personalities, styles, and genres. (Formerly numbered Theatre 520.)
A. Nineteenth Century Viennese Operetta through 1950
B. 1950 to Present

521A. History of Musical Theatre Laboratory (1) Cr/NC I
Three hours of laboratory.
Prerequisite: Upper division standing. Must be taken concurrently with Theatre 520A.

Laboratory component of Theatre 520A. Students read librettos, listen to scores, view filmed performances, and profile musical-theatre writers and composers as part of the historical overview studied in Theatre 520A.

## 521B. History of Musical Theatre Laboratory (1) $\mathrm{Cr} / \mathrm{NC}$ II

Three hours of laboratory.
Prerequisite: Upper division standing. Must be taken concurrently with Theatre 520B.

Laboratory component of Theatre 520B. Students read librettos, listen to scores, view filmed performances, and profile musical-theatre writers and composers as part of the historical overview studied in Theatre 520B.
523. Stage Combat (2) II

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.

## 525. Dramaturgy (3) I

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.
530. Period Dress and Decor (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.
532. Advanced Acting and Directing (3) I

Prerequisites: Theatre 332 and by audition.
Problems in characterization in contemporary drama, and in plays of Ibsen, Strindberg, Chekhov, and Shaw.

## 533A-533B. Theory and Styles in Acting and Directing I and II (3-3)

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.

## 539. Theatre Rendering <br> (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.

## 540. Scene Design II (3) I

Prerequisites: Theatre 440 and 530.
History of scene design and application of contemporary styles to various types of dramatic production.

## 541. Scene Painting (2) II

Four hours of activity.
Prerequisite: Theatre 530.
Theories and techniques of scene painting, including both historical backgrounds and modern procedures. Full-scale projects executed in scenery studio.

## 543. Stage Property Design (2) I

One lecture and two hours of activity.
Prerequisite: Theatre 530.
Theories and techniques of property design for the theatre: script analysis, research methods, planning and budgeting procedures, construction techniques and materials. Projects in property design for selected scripts.

## 545. Mechanical Drawing for the Theatre (2) I

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.

## 546. CADD for the Theatre (2) II

Four hours of activity.
Prerequisite: Theatre 545.
Computer aided drafting applications for theatre designer.
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.
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.

## 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.

## 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.

## 551. Costume, Movement, and Manners (3) I

Prerequisite: Upper division standing or admission to the graduate program.

Interrelationship of period costumes and the movement and manners of selected historical periods; application to staging of plays from pre-modern theatre.

## 552. Costume Design II (3) I

Prerequisites: Theatre 452 and 530.
Advanced studies in costume design. Emphasis on theatrical style, rendering layout, design problems, materials, and budget.
554A. Costume Design Technology I (2) 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.

## 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.

## 555. Movement for the Theatre II (2) I

Four hours of activity.
Prerequisite: Theatre 130 or admission to the M.F.A. program.
Movement techniques for theatre. Movement patterns, phrase development, and musical theatre movement styles. Maximum credit four units applicable to a bachelor's degree; maximum credit eight units applicable to the M.F.A. degree in theatre arts.
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

## 580. Theatre in the Classroom (3)

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. (Formerly numbered Theatre 480.)
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)

## 110. Telecommunications and Film Writing (3) I, II

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements. Ability to type. Proof of completion of prerequisites required: Copy of EPT or competency scores or verification of exemption; proof of Cr in Rhetoric and Writing Studies 97A or 97B, or notification from the Department of Rhetoric and Writing Studies. Limited to television, film and new media production majors.

Theory and practice in writing for electronic and film media. Introduction to techniques of narrative and documentary writing and scripting.
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. Limited to television, film and new media production majors.

Theory of audio production, use of analog and digital recording, and editing equipment.

## 122. Basic 16MM Film Production (3)

Two lectures and three hours of activity.
Prerequisite: Limited to television, film and new media production majors.

16MM film production and non linear editing.
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.
160. Cinema as Art and Communication (3) I, II

An appreciative survey of cinema in its diverse forms. Historical and stylistic influences on the aesthetic values and social implications of cinema. Illustrated by screen examples.

## 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 $C$ (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.

## 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.

## UPPER DIVISION COURSES INTELEVISION, FILM AND NEW MEDIA (Intended for Undergraduates)

## 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.

## 321. Sound Design for Video and Film

(3)

Two lectures and two hours of activity.
Prerequisites: Communication 200, Television, Film and New Media 260.

Audio post-production and synchronization with the visual image for video, TV, and film. Includes field acquisition, Foley, editing, and assembling.

## 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. Execution of postproduction in film as well as classical and modern editing theories.
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. Not open to students with credit in Communication 408. (Formerly numbered Communication 330.)

## 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. (Formerly numbered Television, Film and New Media 250 or 324.)

## 363. International Cinema (3) I, II

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.

## 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.

## 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.)
390. Broadcast and Film Performance (3) II

Two lectures and three hours of activity.
Prerequisite: Theatre 110.
Preparation and delivery of materials before the microphone and camera.
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.
435. Television Programming (3) I

Prerequisite: Communication 200.
Structure of television programming. Problems such as ratings, advertisers, and scheduling. (Formerly numbered Communication 435.)
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 three units.

## 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.

## 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 INTELEVISION, FILM AND NEW MEDIA <br> (Also Acceptable for Advanced Degrees)

## 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. (Formerly numbered Television, Film and New Media 410.)

## 522. Film and Television Cinematography <br> (3) I

Two lectures and three hours of laboratory.
Prerequisites: Television, Film and New Media 110, 122, and 123. Proof of completion of prerequisites required: Copy of transcript.

Advanced theory and practice of cinematography for film and television production. Practicum in cinematography problems related to control of light and image for television and film, including use of specialized equipment, film and videotape stock, location and studio shooting, and complex blocking problems.

## 550. Art Direction for Television and Film (3) II

One lecture and four hours of activity.
Prerequisites: Television, Film and New Media 350, 260 or 261, 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.

## 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.

## 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.)

## 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.

## 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.

## 562. Documentary and Propaganda Film/Television (3)

Prerequisite: Television, Film and New Media 160.
Analysis through viewing of persuasive concepts, techniques, and forms in international, documentary film and television programs, and special effects.
565. Animated Film and New Media Techniques (3) II

Two lectures and more than three hours of activity.
Animation production and practical experience in digital technologies.

## 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. (Formerly numbered Television, Film and New Media 469.)
596. Selected Topics in Television, Film and New Media

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 Bulletin of the Graduate Division.

Urban Studies
Refer to "Interdisciplinary Programs" in this section of the catalog.

# Women's Studies 

## In the College of Arts and Letters

OFFICE: Adams Humanities 3138
TELEPHONE: (619) 594-6524

## Faculty

Emeritus: Espín, Huckle, Kohen
Chair: Cayleff
Professors: Cayleff, Jones, Scott, Watson, Zimmerman
Associate Professors: Donadey, Mattingly
Assistant Professors: Ghosh, Lara, Roy, Washington

## 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.

## 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)
Foreign 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 this catalog on "Graduation Requirements."

Upper Division Writing Requirement. Passing the University Examination or completing 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.

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, 340, 341A-341B, 352, 360, 370, 375, 385; Women's Studies 331 or Asian Studies 331; 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, 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, 340, 341A-341B, 352, 360, 370, 375, 385. Africana Studies 332*, American Indian Studies 303*, Asian Studies 331, 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, 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.

## Women's Studies Dual Degree

The MEXUS/Women's Studies program is a partnership between San Diego State University (SDSU) and the Universidad Autonoma de Baja California (UABC) located at Tijuana, Baja California, Mexico. Students may enter the program at either of the two universities, and must spend a minimum of two years in both the United States and Mexico.

Participants in the MEXUS/Women's Studies program are enrolled in the Women's Studies major at San Diego State University.

In addition to completing 49 units of General Education requirements at SDSU, students in the MEXUS/Women's Studies program must complete 33 units of women's studies courses, and either 68 units of economics, or 60 units of psychology, or 68 units of sociology. Approximately one-half of all of these requirements are completed in Spanish while attending school in Mexico. Students are also required to participate in an internship program, which provides MEXUS/ Women's Studies students with the opportunity to work for an international institution and to develop a network of contacts in the private or public community, a vital step towards employment after graduation.

Successful participants in the MEXUS/Women's Studies program will earn both the Bachelor of Arts degree in women's studies from San Diego State University and either the Licenciatura in sociología or economía from UABC.

## Courses (wmnst)

## LOWER DIVISION COURSES

## 101. Women: Self, Identity and Society (3) 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, socia evolution, family structures, and economic life.

## 102. Women: Images and Ideas (3) I, II

Major cultural representations of women in ancient through contemporary societies from perspectives in the humanities, including philosophy, religion, art, literature, and history.

## 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## UPPER DIVISION COURSES (Intended for Undergraduates)

310. Women in Cross-Cultural Perspective (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Women from an anthropological perspective; social, economic, legal and ideological aspects of women's position in selected preindustrial or transitional (compared with industrial) societies.

## 320. Socialization of Women (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Theories of socialization; summary of studies on the impact of formal and informal social institutions on female development.

## 325. Psychology of Women (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Theories of the psychological development of women; investigation of biological and cultural factors influencing personality and behavior.

## 331. Women in Asian Societies (3)

(Same course as Asian Studies 331.)
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.

## 340. Women in Modern European History (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Social, cultural, economic, political and ideological aspects of women's history in the modern period. Impact of modernization on roles of women in family and society from the eighteenth to the midtwentieth centuries in Europe.
341A-341B. Women in American History (3-3) I, II
History of American social, cultural, economic, political, and intellectual institutions, focusing on the role and perspective of women. Semester I: From colonization to 1860; Semester II: From 1860 to the present. Satisfies the graduation requirement in American Institutions.

## 352. Women in Literature (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Literature by and about women; appraisals of women's place in various literary genres; historical and contemporary themes; evolution of forms and techniques.
360. Women's Sexuality (3)

Historical changes in women's perceived sexual natures; role of medical and scientific expertise; research and theory on psychological, social, and cultural aspects of women's sexuality; relationships among social beliefs, expectations, customs and traditions, and among sexual behavior responses and identity.

## 370. Women and the Law (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Legal factors affecting women in employment, education, health and welfare, property ownership and criminal justice, including investigation of public policy issues which affect women's lives.

## 375. Sex, Power, and Politics (3) I,II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Social, economic and political factors which explain women's political status and participation. Topics include institutional structures, leadership and ideology, power and authority, and the women's movement as a political movement.

## 385. Women's Work

(3)

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.

## 400W. Interdisciplinary Writing Practices: Feminist Perspectives (3)

Prerequisite: Satisfies University Upper Division Writing requirement for students who have taken 60 units, fulfilled the Writing Competency requirement, and completed the general education requirement in Communication 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.

## 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 499. Special Study (1-3)

Prerequisites: Three upper division units and consent of the department chair and instructor.

Individual study. Maximum credit six units.

## UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)
512. Women of Latin America (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.

## 515. Women: Mythology and Ritual (3)

Prerequisite: Three upper division units in women's studies.
Meanings and functions of myths and rituals in their sacred and secular aspects, emphasizing their impact on women's lives and relationships in differing cultural contexts, past and present.

## 521. Life Cycles of Women (3)

Prerequisite: Three upper division units in women's studies.
Women's developmental processes across the life cycle; their impact on women, men, and the family, including life passages related to adolescence, marriage, motherhood, divorce, widowhood, "second careers," and aging in varying socioeconomic and cultural contexts.

## 522. Women: Madness and Sanity (3)

Prerequisite: Three upper division units in women's studies.
Concepts of mental health and mental illness as applied to women. Theory of psychotherapy, both traditional and feminist. Alternative approaches to mental health.

## 530. International Women's Movements (3)

Prerequisite: Three upper division units in women's studies.
Comparative study of women's movements worldwide in past and present, to include discussion of issues such as female bonding, leadership, and women's goals and strategies to achieve them within local, national, and global contexts.

## 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.

## 536. Women, Race, and Class (3)

Prerequisite: Three upper division units in women's studies.
Major issues and themes in the history, culture, and contemporary lives of women of color in the U.S. Analysis of theories explaining similarities and differences in opportunities and life choices. Roles within social and political movements.

## 553. Women Writers (3)

Prerequisite: Three upper division units in women's studies.
Literary, historical, and social consideration of women writers; may focus on one author, era, or theme. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units. Limit of three units applicable to the major in women's studies.
565. Women, Health, and Medicine (3)

Prerequisite: Three upper division units in women's studies.
Historical and contemporary relationship of women to alternative and traditional healing systems. Illness labeling, folk-healing beliefs, sectarian medicine, reproduction, birth control, life-cycle events, roles as practitioners and patients, ethical controversies, and aging.

## 572. Women and Violence (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.

## 580. Women and International Development (3)

Prerequisite: Three upper division units in women's studies.
Women's roles as agents and recipients of change worldwide, focusing on such issues as self-determination, education, family and work, food and hunger, and reproduction.

## 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.

## 590. Feminist Thought (3) I

Prerequisite: Six upper division units in women's studies.
Readings in feminist theory and contemporary theoretical perspectives on core concepts and issues in feminist scholarship. Focus on understanding from a feminist perspective and on the significance of analyzing female experiences.

## 595. Seminar in Women's Studies (3) II

Prerequisites: Six upper division units in women's studies and consent of instructor.

Directed research in women's studies. Field of investigation will vary with instructor. Methods of investigation, development of bibliography, presentation of paper based on original research. See Class Schedule for specific content.

## 596. Topics in Women's Studies (3) <br> Prerequisite: Consent of instructor.

Advanced topics in women's studies. See Class Schedule for specific content. May be repeated with new content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

## 597. Research Project (3) I, II

Prerequisites: Six upper division units in women's studies and consent of adviser.

Individual research project. May be taken in place of Women's Studies 595, Seminar in Women's Studies.

## 598. Women's Studies Internship (3) II Cr/NC

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. (Formerly numbered Women's Studies 498.)

## GRADUATE COURSES

Refer to Bulletin of the Graduate Division.

$416$

## Special Programs and Services

# 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) and a 1152 Processor IBM RS/6000 SP Supercomputer. Both the Sun F4800 Server and the IBM RS/6000 SP computers are available to the university community via the campus Internet which also links students to specialty computing centers located at other California State Universities.

The University has over 2,000 microcomputers as well as a significant number of X-Terminals 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 (1) the Love Library Student Computer Center located in Love Library 200 which has PCs, Macintoshes, and laser printing; (2) the Social Science Research Lab located in PSFA 140 has PCs, Macintoshes, and laser printing; and (3) the Terminal Labs in BA-110 and BA-113 have diskless PCs 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 PageMaker, 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.

A Web site is available at 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 and faculty of the University), provides scholarships for students, organizes Homecoming, sponsors Career Panels, 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 www.sdsualumni.org or phone the Alumni Office at (619) 594-2586.

## Associated Students of

 San Diego State UniversityThe 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 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 representative per 1500 students, four executive officers, and representatives of some student organizations, the Council is responsible for the A.S. $\$ 12$ million annual budget and for formulating 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) 594-6487 for more details about student government programs.

Aztec Center. The hub of student activity at SDSU, Aztec Center is the headquarters of the Associated Students and its staff. Aztec Center features study lounges, meeting and conference rooms, the Campus Information Center, the Ticket Office and businesses that include Council Travel, Enterprise Rent-A-Car, Postal Annex, and USE Credit Union. The Center also houses Monty's Den, a popular campus eatery and meeting place that offers many food selections. For more information, call (619) 594-6551.

Cox Arena at Aztec Bowl. This facility features seating for over 12,000 people and hosts SDSU basketball and volleyball games in addition to community events, concerts, graduation ceremonies, conferences, sports shows, and more. It features state-of-the-art staging and sound systems, along with deluxe dressing rooms. VIP lounges and meeting rooms are also available for rental. On site is a full-service box 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 2,000 vehicles. Call (619) 594-0234.

Recreation Programs. Associated Students manages most of SDSU's recreation and leisure programs. Offered at affordable prices, they are also 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; outdoor equipment rentals; a 52" TV and lounge area; plus locker rooms with full towel service and saunas. Membership includes unlimited access to recreation facilities, aerobics, 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 $\$ 13.00$ per month for students. Call (619) 594-6424 or 594-PLAY for complete schedules and membership information.
Aztec Center Bowling and Games. One of the most affordable places on campus. This facility includes AMF computerautomated scoring, over 40 video games, billiards, table tennis, and leagues. Also available for parties. Call (619) 594-6561.
Mission Bay Aquatic Center. The world's largest instructional waterfront facility, located at 1001 Santa Clara Point in Mission Bay Park, offers classes and recreational opportunities in
surfing, sailing, windsurfing, waterskiing, rowing, wake boarding, and more. Equipment rentals and facilities for group meetings or barbecues are also available. Bus transportation from SDSU available on Transit Route 81. Call (619) 488-1036.
Aztec Adventures. Located in the Aztec Recreation Center complex, 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 or instructors. Most outings include transportation, food, group equipment, and all permits or fees. Outdoor rental equipment services are also available. Call (619) 594-6222 for more information and trip schedules.
Recreational Sports. An extension of the Aztec Recreation Center (ARC), Recreational Sports offers free racquetball and wallyball to ARC members. The golf driving range, batting cage, and equipment rentals are also 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 594-PLAY.

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 of our 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.
Child Care Programs. Associated Students provides child care and preschool learning programs through two facilities: the Campus Children's Center and the Faculty/Staff Children's Center. Programs range from part-time to full-time care for children ages six months to five years, with all programming provided by expertly trained teachers and staff members. For more information, call (619) 594-7941 or 594-6359.

Open Air Theater and Entertainment. A.S. offers multiple programs that provide fun and versatile entertainment. The 5,100 seat Open Air Theater features regular performances to sellout crowds including concerts, lectures, and symphony performances. Call Aztec Center Ticket Office, (619) 594-6947 for performance schedules.

## 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 Athletic Center 3029, (619) 594-5891Involvement 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. This individualized program is designed to create an academic support network to ensure all stu-dent-athletes comply with University requirements while working toward completion of a degree.

## Aztec Shops, Ltd.

## (Campus Stores, Dining Services)

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 the AzTechnology Zone, a full-service computer hardware and software department. AzTechnology Zone offers significant academic discounts on the most popular systems from Sony 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.

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 College Ave. Grill, Aunt Mary's Corner Bakery and the new Durango's and Vinnie's Gourmet Italian Deli in East Commons. We also contract with other restaurant operators such as McDonald's, Sbarro Italian Eatery and Daphne's Greek-to-Go 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.

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 plus logo merchandise from selected universities and professional sports teams.

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. University Towers is operated under contract by College Park Communities.
Concessions - Aztec Shops operates the concession stands at Cox Arena, the Open Air Theater and Tony Gwynn Stadium.

## The Center for Biopharmaceutical and Biodevice Development

## A. Stephen Dahms, Director 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 is the first degree program developed and offered by the Center. The program addresses overarching legal, ethical, and regulatory requirements that impact the development, manufacturing and commercialization of biomedical products. Instructors for regulatory affairs courses in the degree program are primarily industry professionals. A Certificate in Regulatory Affairs is available by successfully completing a core of three courses for students interested in obtaining a foundational understanding in regulatory affairs. The Center's current development activities for new education and training programs focus on quality control and assurance, clinical development, and compliance. Distance education technologies are used to make the Center's education and training programs available to industry professionals outside the San Diego region. Other biomedical industry relevant education and training programs that the Center is actively developing are in the areas of quality systems and clinical research. 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).

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

## A. Stephen Dahms, 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 entire 23
campus 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 Cal Poly San Luis Obispo Environmental Biotechnology Institute. 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, San Jose State University, Cal Poly Pomona, CSU Los Angeles, and Cal Poly San Luis Obispo. Faculty input into the organization and its multiple activities is through a 65 member Biotechnology Faculty Consensus Group.

## 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:

Relational databases of faculty and courses involved in commu-nity-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 the Office of Student Life and Development. For more information, contact the CCBSL at (619) 594-0807 or www.sa.sdsu.edu/ccbl.

## The June Burnett Institute for Children, Youth, and Families

6310 Alvarado Court, San Diego, CA 92120, (619) 594-4756, FAX (619) 287-6756

The June Burnett Institute was created in 1985 at the San Diego State University 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 well-being of children, youth, and families through prevention, intervention, and vol-unteer-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.

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 700 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, Baltimore campus. 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 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 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, commu-nity-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.

## Childrens Centers

The Associated Students' Campus Children's Center and Faculty Staff Children's Centers provide child care for children of SDSU students, faculty, and staff. The Campus Children's Center is a parent participation program and gives priority to children of students. Other factors that determine priority are financial need and application date.

The Campus Center serves children six months through six years of age, who are in good health. The Faculty Staff Children's Center is open year-round and serves children 18 months to six years of age and gives priority to children of faculty and staff. All applications are considered regardless of race, religion, creed, sex, national origin, or handicap.

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

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

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

The hours of operation are: Campus Preschool 7:30 a.m. to 5:30 p.m., Monday through Thursday, 7:30 a.m. to 4:00 p.m. Friday; Toddler Classroom 8:00 a.m. to 4:00 p.m. The Infant Classroom is open Monday through Friday 8:00 a.m. to 2:00 p.m. The Faculty/Staff Preschool is open 7:00 a.m. to 6:00 p.m., Monday through Friday. Call (619) 594-6359 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 921204917, (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 proficiency consistent with its established standards and, accordingly, requires all entering students to pass various writing competency tests. Students who fail any of these tests 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 three semesters 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.
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, Room Love Library 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, Room Love Library 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.

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.

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 planning calendar and information booklet for the university community.

To be considered for election to membership, students must have senior standing for the fall semester with an overall GPA of 3.00 and 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 Young, Associate Professor of Spanish and Dr. E. Nicholas Genovese, Professor of Classics and Humanities. 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, with 262 chapters. It recognizes academic excellence in the liberal arts and sciences. Nu Chapter was established at SDSU in 1974, 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 upper division writing competency 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. 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. E. N. Genovese, Department of Classics and Humanities. For general information consult www.pbk.org/about/fac.htm.

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 Dean O. Popp, Associate Vice President for Faculty Affairs. For more information, call (619) 5946111.

Phi Kappa Phi was founded in 1897 to promote the pursuit of excellence in all fields of higher education and to recognize outstanding achievement by students, faculty, and others through election to membership and through various awards for distinguished achievement. Activities of the organization include the awarding of two thousand dollars in scholarships annually, the recognition of outstanding faculty and students through nominations for national awards and scholarships, spring initiation, and sponsorship of the SDSU Emeritus Lecture Series. The national organization publishes a newsletter and a scholarly journal and sponsors the National Scholar and National Artist awards and the Graduate Fellowship program. Nationally there are 275 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 five percent of their class at SDSU; seniors must have completed a minimum of 90 units and be in the top five 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 five percent of their class. All prospective members must have made satisfactory progress toward the degree.

President of the society is Dr. Ernst C. Griffin, Special Assistant to the Associate Vice President for Academic Affairs.

## 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)
Omicron Delta Epsilon (Economics)
Phi Alpha Theta (History)
Phi Beta Delta (International Studies)
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 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; on-line access to an instructional media collection containing more than 7,000 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 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; assistance to faculty who wish to analyze their instruction; 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, a courseware development specialist is 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 Universityrelated 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. EMAIL: oip@mail.sdsu.edu or visit our Web site at http://oip.sdsu.edu.

## Library and Information Access

## Administration

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

## Library Faculty

Emeritus: Barclay, Cargille, Chan, Coleman, Crisley, Dickinson, Fields, Goodwin, Goyne, Granrud, Harris, Hoover, Johns, Kinsey, Lamb, Leerhoff, Martinez, McAmis, Murdock, Neyndorff, Pease, Posner, Sandelin, Schalles, Shira, Sonntag, Szabo
Librarians: Dintrone, Fikes, Harkanyi, Harley, Muroi, Perkins, Turhollow, White
Associate Librarians: Baber, Carande, Favretto, Maymi-Sugranes, McPhail, Palsson, Puerto, Rogers, Stover, Tumlin, Wilson
Senior Assistant Librarians: Dreger, Hall, Hudson, Karnyski, Martinez, Neal, Payne, Rhodes, Salem, Su, Sullivan
The Library supports the curricular and research needs of the University community through the development of collections and the provision of services designed to facilitate access to information. Service desks are located in these units: Circulation, Reference Services, Media Center, Current Periodicals and Microforms Center, Reserve Book Room, and Special Collections. The Library also has a comprehensive instruction program, which includes course-related instruction and tours.

The Library's Web site (http://infodome.sdsu.edu/) provides access, within the library and remotely, to the library's catalogs, electronic books, journals, and more than 50 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 academic libraries through Circuit and Link+. The Information Systems and Technology group provides computer accounts to all students, as well as hosting WorldWide Web pages for students, the University, and the Library. The Library and Information Access provides up-to-date computing resources, with over 600 computers available in the Student Computing Center, Reserve Book Room, and throughout the Library, as well as a student computing help desk which assists students with a variety of computer questions.

The Library's holdings include 1,342,735 monographs and bound periodicals; 644,028 government documents; 4,262,120 microforms; 137,198 maps; 10,230 sound recordings; and 5,703 linear feet of archival papers. The Library receives 8,138 periodical and serial titles, including government publications. It is a depository for United States and California government publications, and receives selected United Nations publications.

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

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

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

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

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

Students are encouraged to seek information and plan ahead if they are interested in adding any of these programs to their career options. More information on all programs is available by calling or writing to the Officer Programs Office, NRD San Diego, NTC BLDG 335, San Diego, CA 92133-6800; telephone (619) 524-6710.

## Parking and Transportation

Where possible, carpooling or use of alternate modes of transportation is recommended. For carpool registration, contact School Pool (1-800-COMMUTE). For additional carpool information call (619) 594-5224.

San Diego Transit has six bus routes connecting the metropolitan area with service to the University Transit Center. These are routes 11, $13,55,81,115$, and 936 . Semester and monthly bus passes can be purchased at the Aztec Center Ticket Office. San Diego Transit information at 1-800-COMMUTE will provide further information concerning bus routes, fares, and services, or use the free online transit information service at www.sdcommute.com.

On-campus parking is by permit only. Purchase or possession of a parking permit does not guarantee a parking space. An additional permit is required for overnight parking. Overnight parking is limited and available on a first come, first serve basis. Parking structures are located on the perimeters of the campus in addition to surface parking lots. A free shuttle bus service to remote parking lots operates weekdays during the academic year. Major events at Cox Arena may require parking location adjustment. Visitor parking is available in several pay parking lots. Visitors are directed to the Information Booth at the College Avenue entrance to the campus for directions to appropriate pay parking areas. For further information on parking at the San Diego campus, contact the Department of Public Safety, (619) 594-6671. For visitor parking at the Imperial Valley Campus, call (760) 768-5500.

## San Diego State University Foundation

San Diego State University Foundation was incorporated in 1943 as an auxiliary organization authorized by the Education Code of the State of California. It is a nonprofit corporation, self-financed, and chartered to augment the educational, research, and community services objectives of the University. San Diego State University 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 for University programs, such as faculty research grants-in-aid; graduate students, equipment, and other research support needs; and community relations.
San Diego State University 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, Poetry International, and Nineteenth-Century Prose.

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 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 the Department of History, Adams Humanities, Room 4210 or the Department of English and Comparative Literature, Adams Humanities, Room 4158.

## 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 units of 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, Business Administration, Room 403.

## 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.

## Student Recruitment and School Relations

## Student Services, Room 1528, (619) 594-6336/(619) 594-3707 FAX: (619) 594-1511 www.sdsu.edu/srsr/

Student Recruitment and School Relations is SDSU's official representative linking the University with prospective students, community colleges, and high schools. The department fosters relationships with schools, colleges, and community organizations to ensure high quality and diverse students apply to San Diego State University. Student Recruitment and School Relations provides guidance on college selection, preparation for college, admission requirements, academic programs, and student services. Special programs and activities are then conducted to assist admitted students.

Specific services include visitations and presentations to students, counselors, and parents at high schools and community colleges, and administration of special programs including counselor conferences, Preview Day for prospective students, and Future Aztecs Day for admitted students.

## Veterans Affairs

## Office of the Registrar

Student Services, Room 1641, (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.

$426$

## University Policies

 General Information
## 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 and Student Information Handbook outlines changes in academic policy and procedure and current deadlines which are of importance to students.

Nothing in this catalog shall be construed as, operate as, or have the effect of an abridgment or a limitation of any rights, powers, or privileges of the Board of Trustees of the California State University, the Chancellor of the California State University, or the President of San Diego State University. The Trustees, the Chancellor, and the President are authorized by law to adopt, amend, or repeal rules and policies that apply to students. This catalog does not constitute a contract or the terms and conditions of a contract between the student and San Diego State University or the California State University. The relationship of the student to San Diego State University is one governed by statute, rules, and policy adopted by the Legislature, the Trustees, the Chancellor, the President and their duly authorized designees.

## Privacy Rights of Students in Education Records

The federal Family Educational Rights and Privacy Act of 1974 (20 U.S.C. 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 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 and adjudicate violations. The designated office is: Family Policy Compliance Office, U.S. Department of Education, Washington, D.C. 202024605.

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, honors, 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 information the student requests not be released. Students are given an opportunity to restrict the release of "directory information" about themselves by calling the Office of the Registrar's touch-tone system, (619) 594-7800, or by accessing www.sdsu.edu/ webline.

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 using 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 amended and the regulations adopted thereunder. 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. Section 504 of the Rehabilitation Act of 1973,

## University Policies

as amended, and the regulations adopted thereunder and the Americans with Disabilities Act of 1990 prohibit such discrimination.

Sex
San Diego State University does not discriminate on the basis of sex in the educational programs or activities it conducts. Title IX of the Education Amendments of 1972, as amended, and the administrative regulations adopted thereunder prohibit discrimination on the basis of sex in education programs and activities. Such programs and activities include admission of students and employment. Inquiries concerning the application of Title IX to programs and activities can be directed to the Director, Office of Diversity and Equity, (619) 594-6464 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 new 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; $\mathbf{B}$ (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; 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.

## 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; $\mathbf{B}$ (average; awarded for satisfactory performance), 3 points; $\mathbf{C}$ (minimally passing), 2 points; $\mathbf{D}$ (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).

## Withdrawal Grade - "W"

The symbol "W" indicates that you were permitted to drop a course after the first 15 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 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 fifteenth day of the semester, 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. 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 on or before the fifteenth 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 prior to the end of the fifteenth day of instruction. If you are enrolled for credit, you may not change to audit after the end of the fifteenth day of instruction.

## Credit/No Credit <br> (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 " $\mathrm{Cr} / \mathrm{NC}$."
2. Courses graded credit/no credit may not be used to satisfy the Communication and Analytical Reasoning section of General Education.
3. No more than 15 units graded credit/no credit may be offered in satisfaction of the total units required in a bachelor's degree program, except that all units accepted as transfer credit from another institution at the time of 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 by calling RegLine (619-594-7800) or by accessing www.sdsu.edu/webline on or before the fifteenth day of instruction. No changes in grading basis are permitted after that date.
7. A grade of "Credit" is awarded for work equivalent to all grades which earn 2.0 or more grade points (A through C). "No Credit" is awarded for work equivalent to all grades which earn less than 2.0 grade points ( $C$ - through $F$ ).
8. The only courses which may be repeated with a credit/no credit option are those in which 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 "I" (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 "I" 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" replaces the "I" 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 you attend a portion of a course and then, after receiving failing grades, stop attending without officially withdrawing, you should normally receive a final grade of "F" and not "WU."

## 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 changed to an IC (incomplete charged) 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 before the end of the add period (or before noon of the third day of summer term classes). 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 by the deadline or in excess of course repeat limitations (no more than two repeats per course, no more than five repeats total), course "forgiveness" will not be applied; all grades for those courses will be calculated in grade point averages. Units for a course will be counted only once toward graduation, regardless of number of repeats.
9. If 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. 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 Graduate Division.

## California Articulation Number (CAN)

The California Articulation Number (CAN) identifies some of the transferable, lower division, introductory (preparatory) courses commonly taught within each academic discipline on California college campuses.

The system assures students that CAN courses on one participating campus will be accepted "in lieu of" the comparable CAN course on another participating campus. For example: CAN ECON 2 on one campus will be accepted for CAN ECON 2 on another participating campus.

Courses at San Diego State University that have qualified for CAN designations are listed parenthetically by the course description in the Courses and Curricula section of this catalog.

## Final Examinations

No final examination shall be given to individual students before the regular time. 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 Bulletin of the Graduate Division as acceptable for master's degree programs, and certain 600- and 700numbered courses approved by the department, with the remaining requirements for the bachelor's degree. Petitions may be obtained from the Graduate Division and must be submitted to the Office of 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 <br> 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 2.5 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 Bulletin of the Graduate Division.

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.

## Credit for Advanced Placement Examinations

San Diego State University grants credit toward its undergraduate degrees for successful completion of examinations of the Advanced Placement Program of The College Board. Students who present scores of three or better may be granted college credit.

High school students who intend to participate in this program should make the necessary arrangements with their high schools and should indicate at the time they take the Advanced Placement Examinations that their test scores be sent to San Diego State University. To obtain credit and advanced placement, you should contact the Office of Advising and Evaluations.

The Advanced Placement Credit table on the next page indicates the units granted for the score attained and the course equivalents for each of the examinations offered.

| 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 |  |  |  |  |
| 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 |  |  |
| SUBJECT EXAMINATIONS |  |  |  |  |
| 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 |

## Credit for College-Level Examination Program (CLEP)

The University grants credit (see table above) 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).

## 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 following 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 Cr/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 600and 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. It is not allowed during summer term.

## 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.

## 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: |  |  |  |  |
| General. | 3, 4, 5 | 6 | Art 100 and 101 |  |
| Drawing................................. | 3, 4, 5 | 6 | Art 100 and 101 |  |
| General and Drawing................ | 3, 4, 5 | 12 | Art 100, 101, 102, 103 |  |
| Biology...................................... | 3, 4, 5 | 6 | Biology 100,100L and 2 units of Biology 299 |  |
| Chemistry ................................... | 3, 4, 5 | 6 | Chemistry 200, 201 |  |
| Classics: |  |  |  | If both examinations are passed with scores of 5 , additional 3 units credit for Classics 304L will be provided. |
| Latin Literature | $\begin{aligned} & 3,4 \\ & 5 \\ & 3,4 \\ & 5 \end{aligned}$ | 5 | Classics 202L <br> Classics 202L and 303L**** <br> Classics 202L <br> Classics 202L and 303L**** |  |
|  |  | 6 |  |  |
| Vergil ...................................... |  | 5 |  |  |
|  |  | 6 |  |  |
| Computer Science$A^{\star *}$ |  |  |  |  |
|  | 3 | 3 | Computer Science 299 |  |
|  | 4,5 | 3 | Computer Science 107 |  |
| $A B^{\text {** }}$ | 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. | $\begin{aligned} & 5 \\ & 3,4 \end{aligned}$ | $\begin{aligned} & 6 \\ & 6 \end{aligned}$ | Rhetoric and Writing Studies 100 and 200 Rhetoric and Writing Studies 100 and 3 units of Rhetoric and Writing Studies 299 | Exempts from CSU English Placement Test and satisfies Writing Competency |
| Lit. and Comp. | 3, 4, 5 | 6 | English 220 and Rhetoric and Writing Studies 100 |  |
| Environmental Sciences ................ | 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 foreign language requirement |
|  | 4, 5 | 6 | French 220 and 221 |  |
| French Literature ......................... | 3, 4, 5 | 6 | French 305A and 305B |  |
| German Language ...................... | 3 | 3 | German 200 | Satisfies the foreign language requirement. |
|  | 4,5 | 8 | German 205A and 205B |  |
| German Literature ........................ | 4,5 | 3 | German 310 |  |
| History: |  |  |  |  |
| American................................ | 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 |  |
| Mathematics: |  |  |  |  |
| Calculus AB ............................ | 3, 4, 5 | 5 | Mathematics 150 | Exempts from CSU Entry Level Mathematics Test. |
| Calculus BC ............................ | 3, 4, 5 | 6 | Mathematics 150 and 151 |  |
| Calculus AB and BC .................. | 3, 4, 5 | 9 | Mathematics 150 and 151 |  |
| Music | 3, 4, 5 | 6 | Music 205A-205B*** |  |
| Music Listening andLiterature.............................. 3, 4,5 |  |  |  |  |
| Physics: |  |  |  |  |
| B........................................... | 4, 5 | 3 | Physics 180A |  |
| C (Mechanics) ......................... | 4,5 | 3 | Physics 195 |  |
| Political Science |  |  |  |  |
| Govt./Politics: American............. | 3, 4, 5 | 6 | Political Science 101 and 102 | Satisfies American History/Institutions and Ideals, and U.S. Constitution requirements. Does not satisfy Calif. government requirement. |
| Govt./Politics: Comparative ........ | 3, 4, 5 | 6 | Political Science 101 and 102 |  |
| Govt./Politics: American and ...... Comparative | 3, 4, 5 | 12 | Political Science 101, 102, 103, 296 |  |
| Psychology ................................ | 3, 4, 5 | 3 | Psychology 101 |  |
| Spanish Language ....................... | 3 4 4 | 6 | Spanish 103 and 211 Spanish 202 and 212 | Satisfies the foreign language |
| Spanish Literature.. | 4,5 $3,4,5$ | 6 | Spanish 202 and 212 Spanish 405A-405B | requirement. |
| Statistics ..................................... | 3, 4, 5 | 3 | Statistics 250 | Exempts from CSU Entry Level Mathematics Test. |

* Credit may not be earned at SDSU for courses which duplicate credit already allowed for examinations as listed under SDSU course equivalents
**Maximum combined credit six units allowed for Computer Science A and AB examinations.
${ }^{* * *}$ Student must also take Music Placement Examination.
****Satisfies the foreign language requirement.

| International Baccalaureate Credit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| EXAMINATION | $\begin{array}{lr}\text { S } & \text { Se } \\ \text { C } & \text { unit } \\ \text { O } & \text { al } \\ \text { R } & \text { to }\end{array}$ | mester <br> s credit <br> lowed <br> ward <br> egree | $\begin{gathered} \text { SDSU } \\ \text { course } \\ \text { equivalents* } \end{gathered}$ | 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 <br> Studies 100 | Exempts from CSU English Placement Test and satisfies Writing Competency. |
| French | Higher 4-7 | 6 | French 220 and 221 | Satisfies Foreign Language Graduation Requirement and lower division prerequisites. |
| Geography | Higher 4-7 | 6 | Geography 101 and 102 |  |
| German .................................... | Higher 4-7 | 6 | German 200 and 205A | Satisfies Foreign 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 Foreign Language Graduation Requirement and lower division prerequisites. |
| Spanish B.. | Higher 4-7 | 6 | Spanish 202 and 212 | Satisfies Foreign 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 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 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 Bulletin of the Graduate Division.

## 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 the Web site at www.sdsu.edu/e-services. 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. You may also obtain a copy from the Office of the Registrar. These transcripts are available on an immediate basis. These records 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. 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 Room 1641 of the Student Services building; (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. 92182-7453.

## Prerequisites

If you do not meet the prerequisite requirements, you MAY BE DROPPED FROM THAT COURSE BY THE INSTRUCTOR within the first 12 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.

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.

## 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, or changing grading options. Schedule adjustments are done on RegLine, the SDSU touchtone registration system or on WebLine, the online registration system, until the fifteenth day of the semester.

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 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 days of the semester. 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 fifteenth day of the semester, 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

1. Students may drop courses, without penalty or restriction, until the end of the fifteenth day of classes. For the fall 2003 semester, the drop deadline is September 22, 2003. For the spring 2004 semester, the drop deadline is February 2, 2004.
2. Students may add courses until the end of the fifteenth day of classes. For the fall 2003 semester, the add deadline is September 22, 2003. For the spring 2004 semester, the add deadline is February 2, 2004.
3. Students may completely withdraw from SDSU until the fifteenth day of classes. For the fall 2003 semester, the withdrawal deadline is September 22, 2003. For the spring 2004 semester, the withdrawal deadline is February 2, 2004.
4. Students may elect to change the grading option of courses until the fifteenth day of classes. No changes will be made after this deadline. For the fall 2003 semester, the change in grading option deadline is September 22, 2003. For the spring 2004 semester, the change in grading option deadline is February 2, 2004.

## 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 www.sdsu.edu/ impacted majors. 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 Vice President for Academic Affairs 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-201.
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-201.

## Cancellation of Registration, Withdrawal, Leaves of Absence, Readmission, and Evaluation

## Cancellation of Registration, 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) at the end of the fifteenth 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 fifteenth day of the semester. After the fifteenth 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 take a leave of absence or cancel it by calling the Registrar's Office Touchtone Information System at (619) 594-7800, or by accessing the online registration system at www.sdsu.edu/webline.

The Class Schedule and Student Information Handbook 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 64.

## 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 West, Room 1551 or on the SDSU Web site at www.sdsu.edu/e-services.

## Credit and Study List Limits

A unit or credit hour represents 50 minutes of lecture or recitation combined with two hours of preparation per week throughout one semester of 16 weeks. Two hours of activity (as in physical education) or three hours of laboratory (as in the sciences) are considered equivalent to one hour of lecture.

During initial RegLine/WebLine registration, students can enroll in a maximum of 17 units. During the last three days of registration and during the add-drop process, 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 place within the top ten percent of the college in which they are majoring and have a grade point average of at least 3.50 based on a minimum of 12 units of credit for courses in which letter grades were assigned. The computation of grade points will be made six weeks after the end of the semester to include students who complete Incomplete grades promptly.

Students will be recognized by the dean of their respective college; undeclared and liberal studies majors will be listed by the Dean of Undergraduate Studies.

## Academic Probation, Disqualification, and 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 <br> Academically Disqualified Students

Information on readmission is given in the section of this catalog on Admission and Registration, page 64.

## 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 Discipline and Grievances

Inappropriate conduct by students or by applicants for admission is subject to discipline on the San Diego State University campus. The Office of Judicial Procedures coordinates the discipline process and establishes standards and procedures in accordance with regulations contained in Sections 41301 through 41304 of Title 5, California Code of Regulations. These sections are as follows:

## 41301. Expulsion, Suspension and Probation of Students.

Following procedures consonant with due process established pursuant to Section 41304, any student of a campus may be expelled, suspended, placed on probation or given a lesser sanction for one or more of the following causes which must be campus related:
(a) Cheating or plagiarism in connection with an academic program at a campus.
(b) Forgery, alteration or misuse of campus documents, records, or identification or knowingly furnishing false information to a campus.
(c) Misrepresentation of oneself or of an organization to be an agent of the campus.
(d) Obstruction or disruption, on or off campus property, of the campus educational process, administrative process, or other campus function.
(e) Physical abuse on or off campus property of the person or property of any member of the campus community or of members of his or her family or the threat of such physical abuse.
(f) Theft of, or nonaccidental damage to, campus property, or property in the possession of, or owned by, a member of the campus community.
(g) Unauthorized entry into, unauthorized use of, or misuse of campus property.
(h) On campus property, the sale or knowing possession of dangerous drugs, restricted dangerous drugs, or narcotics as those terms are used in California statutes, except when lawfully prescribed pursuant to medical or dental care, or when lawfully permitted for the purpose of research, instruction or analysis.
(i) Knowing possession or use of explosives, dangerous chemicals or deadly weapons on campus property or at a campus function without prior authorization of the campus president.
(j) Engaging in lewd, indecent, or obscene behavior on campus property or at a campus function.
(k) Abusive behavior directed toward, or hazing of, a member of the campus community.
(I) Violation of any order of a campus President, notice of which had been given prior to such violation and during the academic term in which the violation occurs, either by publication in the campus newspaper, or by posting on an official bulletin board designated for this purpose, and which order is not inconsistent with any of the other provisions of this Section.
(m)Soliciting or assisting another to do any act which would subject a student to expulsion, suspension or probation pursuant to this Section.
(n) For purposes of this Article, the following terms are defined:
(1) The term "member of the campus community" is defined as meaning California State University Trustees, academic, nonacademic and administrative personnel, students, and other persons while such other persons are on campus property or at a campus function.
(2) The term "campus property" includes:
a) real or personal property in the possession of, or under the control of, the Board of Trustees of the California State University, and
b) all campus feeding, retail or residence facilities whether operated by a campus or by a campus auxiliary organization.
(3) The term "deadly weapons" includes any instrument or weapon of the kind commonly known as a blackjack, slingshot, billy, sandclub, sandbag, metal knuckles; any dirk, dagger, switchblade knife, pistol, revolver, or any other firearm; any knife having a blade longer than five inches; any razor with an unguarded blade, and any metal pipe or bar used or intended to be used as a club.
(4) The term "behavior" includes conduct and expression.
(5) The term "hazing" means any method of initiation into a student organization or any pastime or amusement engaged in with regard to such an organization which causes, or is likely to cause, bodily danger or physical or emotional harm to any member of the campus community; but the term "hazing" does not include customary athletic events or other similar contests or competitions.
(o) This Section is not adopted pursuant to Education Code Section 89031.
(p) Notwithstanding any amendment or repeal pursuant to the resolution by which any provision of this Article is amended, all acts and omissions occurring prior to that effective date shall be subject to the provisions of this Article as in effect immediately prior to such effective date.

## 41302. Disposition of Fees:

## Campus Emergency; Interim Suspension.

The President of the campus may place on probation, suspend, or expel a student for one or more of the causes enumerated in Section 41301. No fees or tuition paid by or for such student for the semester or summer term in which he or she is suspended or expelled shall be refunded. If the student is readmitted before the close of the semester or summer session in which he or she is suspended, no additional tuition or fees shall be required of the student on account of the suspension.

During periods of campus emergency, as determined by the President of the individual campus, the President may, after consultation with the Chancellor, place into immediate effect any emergency regulations, procedures, and other measures deemed necessary or appropriate to meet the emergency, safeguard persons and property, and maintain educational activities.

The President may immediately impose an interim suspension in all cases in which there is reasonable cause to believe that such an immediate suspension is required in order to protect lives or property and to ensure the maintenance of order. A student so placed on interim suspension shall be given prompt notice of charges and the opportunity for a hearing within 10 days of the imposition of interim suspension. During the period of interim suspension, the student shall not, without prior written permission of the President or designated representative, enter any campus of the California State University other than to attend the hearing. Violation of any condition of interim suspension shall be grounds for expulsion.

## 41303. Conduct by Applicants for Admission.

Notwithstanding any provision in this Chapter 1 to the contrary, admission or readmission may be qualified or denied to any person who, while not enrolled as a student, commits acts which, were he
enrolled as a student, would be the basis for disciplinary proceedings pursuant to Sections 41301 or 41302 . Admission or readmission may be qualified or denied to any person who while a student, commits acts which are subject to disciplinary action pursuant to Section 41301 or Section 41302. Qualified admission or denial of admission in such cases shall be determined under procedures adopted pursuant to Section 41304.

## 41304. Student Disciplinary Procedures for the California State University.

The Chancellor shall prescribe, and may from time to time revise, a code of student disciplinary procedures for the California State University. Subject to other applicable law, this code shall provide for determinations of fact and sanctions to be applied for conduct which is a ground of discipline under Sections 41301 or 41302 , and for qualified admission or denial of admission under Section 41303; the authority of the campus President in such matters; conduct related determinations on financial aid eligibility and termination; alternative kinds of proceedings, including proceedings conducted by a Hearing Officer; time limitations; notice; conduct of hearings, including provisions governing evidence, a record, and review; and such other related matters as may be appropriate. The Chancellor shall report to the Board actions taken under this section.

## Student Grievances

If a student believes that a professor's treatment is grossly unfair or that a professor's behavior is clearly unprofessional, the student may bring the complaint to the proper University authorities and official reviewing bodies by following the Procedures for Handling Student Grievances Against Members of the Faculty, adopted by the Faculty Senate. A copy of the procedures may be obtained from the Ombudsman's Office in the Student Services building.

## Plagiarism

Plagiarism is formal work publicly misrepresented as original; it is any activity wherein one person knowingly, directly, and for lucre, status, recognition, or any public gain resorts to the published or unpublished work of another in order to represent it as one's own. Work shall be deemed plagiarism: (1) when prior work of another has been demonstrated as the accessible source; (2) when substantial or material parts of the source have been literally or evasively appropriated (substance denoting quantity; matter denoting qualitative format or style); and (3) when the work lacks sufficient or unequivocal citation so as to indicate or imply that the work was neither a copy nor an imitation. This definition comprises oral, written, and crafted pieces. In short, if one purports to present an original piece but copies ideas word for word or by paraphrase, those ideas should be duly noted.

## Lindey, Alexander. Plagiarism and Originality, 1952.

San Diego State University is a publicly assisted institution legislatively empowered to certify competence and accomplishment in general and discrete categories of knowledge. The President and faculty of this University are therefore obligated not only to society at large but to the citizenry of the State of California to guarantee honest and substantive knowledge in those to whom they assign grades and whom they recommend for degrees. Wittingly or willfully to ignore or to allow students' ascription of others' work to themselves is to condone dishonesty, to deny the purpose of formal education, and to fail the public trust.

The objective of university endeavor is to advance humanity by increasing and refining knowledge and is, therefore, ill served by students who indulge in plagiarism. Accordingly, one who is suspected or accused of disregarding, concealing, aiding, or committing plagiarism must, because of the gravity of the offense, be assured of thorough, impartial, and conclusive investigation of any accusation.

Likewise, one must be liable to an appropriate penalty, even severance from the University and in some cases revocation of an advanced degree, should the demonstrated plagiarism clearly call into question one's general competence or accomplishments.

## SDSU Alcohol and Substance Abuse Policies

In accordance with the California Information Practices Act, the Dean of Students of San Diego State University will 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.

## 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 longterm 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 the Student Services Building, 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 \& 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 laws visit the California State Bar Web site http://www.calsb.org/2pub/3kids/4kids-02.htm or California Alcohol Beverage Control Web site http://www.abc.ca.gov/ABC/teensite.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 sites http://www.calsb.org/2pub/3kids/4kids-09.htm for interesting information.

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 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.

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 Personnel Services.

The SDSU auxiliary organizations shall operate in conformity with this campus policy.

## 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.

1. Student financial assistance programs, including state grants, available to students who enroll at San Diego State University;
2. The procedures and forms by which application for student financial assistance is made;
3. The student eligibility requirements for financial assistance and the criteria used in determining how financial assistance is distributed among eligible applicants who enroll at San Diego State University; and
4. The rights and responsibilities of students receiving financial assistance including aid provided under federal Title IV student assistance programs.
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, and includes fees and tuition; the estimated costs of books and supplies; estimates of typical student room and board costs and typical commuting 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.

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.

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.

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.

Information concerning San Diego State University annual campus security report may be obtained from Public Safety, Student Services, Room 1410, (619) 594-1991.

Information concerning the prevention of drug and alcohol abuse and rehabilitation programs may be obtained from Counseling and Psychological Services, (619) 594-5220.

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 Institutional Research, Student Services, Room 3630, (619) 594-6846.

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, Athletics, Room 117, (619) 594-6357.

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 3635, (619) 594-6578.

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 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. 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 www.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; EMAIL: wascsr@wascsenior.org; 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:

Accrediting Commission on Education for Health Services Administration
1911 North Fort Myer Drive, Suite 503
Arlington, VA 22209-1603
(703) 524-0511

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 Collegiate Nursing Education
One Dupont Circle, NW, Suite 530
Washington, D.C. 20036-1120
(202) 887-6791

Computing Sciences Accreditation Board (Computer Science)
Two Landmark Square, Suite 209
Stamford, CT 06901
(203) 975-1117

Council of Graduate Schools
One Dupont Circle, N.W., Suite 430
Washington, D.C. 20036-1173
(202) 223-3791

Council on Education of the Deaf
405 White Hall
Kent State University
Kent, OH 44242-0001
(330) 672-2294

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, www.cswe.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 for Accreditation of Teacher Education
2010 Massachusetts Avenue, N.W., Suite 500
Washington, D.C. 20036-1023
(202) 466-7496

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

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, civil, electrical 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) 3477700.

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 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
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), Bilingual (Spanish) Special Education, Bilingual Speech-Language Pathology, Biotechnology, Business Administration (Imperial Valley Campus only), Children's Literature, Communications Systems, Community College Teaching, Cross-Cultural Language and Academic Development (CLAD or BCLAD), 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, Introductory Mathematics, Personal Financial Planning, Preventative Medicine Residency, Public Administration (Imperial Valley Campus only), Rehabilitation Administration, Rehabilitation Technology, Resource Specialist of Competence, Single Subject Mathematics, Spanish Court Interpreting (Imperial Valley Campus only), Spanish Translation Studies, Supported Employment and Transition Specialist, Teaching the Emotionally Disturbed, Technical and Scientific Writing, 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, 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 four 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 graduate credentials in Education of the Deaf and Deaf-Blind; clinical certification and graduate credentials in speech pathology, audiology and communicative disorders.

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 Graduate Division offers curricula in the various colleges and departments leading to the Master of Arts and Master of Science degrees in a wide variety of fields, the Master of Business Administration, the Master of 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 Doctor of Education in educational technology, teaching and learning, and the Doctor of Philosophy in biology, 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 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 of the campuses require for graduation a basic program of "General Education Requirements," regardless of the type of bachelor's degree or major field selected by the student.

The CSU offers more than 1,800 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 number of doctoral degrees are offered jointly with the University of California and with private institutions in California.

Enrollments in fall 2002 totaled 406,896 students, who were taught by more than 21,225 faculty. The system awards more than half of the bachelor's degrees and 30 percent of the master's degrees granted in California. Nearly two million persons have been graduated from CSU campuses since 1960.

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

The 23 campuses and the Chancellor's Office of the California State University are financed primarily through funding provided by the taxpayers of California. The systemwide cost of education is defined as total support expenditures (State University Fee revenue and General Fund support appropriations) divided by the number of full-time equivalent students. The total 2002/2003 state General Fund appropriation to the CSU (not including capital outlay funding in the amount of $\$ 481,178,000$ ) is $\$ 2,680,280,000$ and campus budgeted State University Fee Revenue is $\$ 533,430,000$ for a total of $\$ 3,213,710,000$. The $\$ 3,213,710,000$, total cost of education for CSU must provide support for a projected 321,132 full-time equivalent students (FTES). The number of full-time equivalent students is determined by dividing the total academic student load by 15 units per term (the figure used here to define a full-time student's academic load).

The 2002/2003 systemwide cost of education per full-time equivalent student is $\$ 10,007$. Of this amount, the average student fee support per FTE is $\$ 1,926$. (The State University Fee and campus fees that must be paid to apply to, to enroll in, or attend the University are included in the average costs paid by the students. Individual students may pay less or more than $\$ 1,926$, depending on the campus and whether student is attending part-time/full-time, or is resident/, nonresident student. Also, other campus fees may be charged that are not required of all enrolled students, which include user and penalty/deposit fee types).

| 2002/2003 | Average Cost Per FTE |  |  |
| :---: | :---: | :---: | :---: |
|  | Amount | Student | Percentage |
| Total Cost of Education | \$3,213,710,000 | \$10,007 | 100.0 |
| -State Appropriation | 2,680,280,000 | 8,346 | 83 |
| -Student Fee Support | 533,430,000 | 1,661 | 17 |


\section*{Trustees of The California State University <br> Ex Officio Trustees <br> | The Honorable Gray Davis | te Capitol |
| :---: | :---: |
| Governor of California | Sacramento 95814 |
| The Honorable Cruz Bustamante | State Capitol |
| Lieutenant Governor of California | Sacramento 95814 |
| The Honorable Herb Wesson | State Capitol |
| Speaker of the Assembly | Sacramento 95814 |
| The Honorable Jack O'Connell | 721 Capitol Mall |
| State Superintendent of Public Instruction | Sacramento 95814 |
| Dr. Charles B. Reed | 401 Golden Shore |
| Chancellor of | Beach 90802-4210 |
| The California State University |  | <br> Officers of the Trustees <br> The Honorable Gray Davis President <br> Debra Farar Chair <br> Murray Galinson Vice Chair <br> Christine Helwick Secretary <br> Richard P. West <br> Treasurer}

## Appointed Trustees

Appointments are for a term of eight years, except student, alumni, and faculty trustees whose terms are for two years. Terms expire in the year in parentheses.

William D. Campbell (2003)
Harold Goldwhite (2003)
Erene S. Thomas (2003)
Martha C. Walda (2003)
M. Alexander Lopez (2004)

Dee Dee Myers (2004)
Ralph R. Pesqueira (2004)
Frederick W. Pierce IV (2004)
Shailesh J. Mehta (2005)
Anthony M. Vitti (2005)
Debra S. Farar (2006)
Robert Foster (2006)
Roberta Achtenberg (2007)
Murray L. Galinson (2007)
Ricardo F. Icaza (2008)
William Hauck (2009)
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## CSU Campus Locations



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16 California State University, San Bernardino - Q 5500 University Parkway, San Bernardino, CA 92407-2397 Dr. Albert K. Karnig, President (909) 880-5000 • www.csusb.edu

17 San Diego State University • S 5500 Campanile Drive, San Diego, CA 92182 Dr. Stephen L. Weber, President (619) 594-5000 • www.sdsu.edu
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18 San Francisco State University • S
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19 San José State University • S
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22 Sonoma State University • S 1801 East Cotati Avenue, Rohnert Park, CA 94928-3609 Dr. Ruben Armiñana, President (707) 664-2880 • www.sonoma.edu

23 California State University, Stanislaus • 4-1-4 801 West Monte Vista Avenue, Turlock, CA 95382-0299 Dr. Marvalene Hughes, President (209) 667-3122 • www.csustan.edu

## Addenda

Faculty and Administration index

SDSU Campus Map

## Faculty and Administration 2002-2003

Weber, Stephen L. (1996) $\qquad$ President, Professor of Philosophy B.A., Bowling Green State University; Ph.D., University of Notre Dame.

Abbott, Patrick L. (1971) . $\qquad$ Professor of Geological Sciences B.S., San Diego State University; M.A., Ph.D., University of Texas at Austin.

Abdel-Nour, Farid (2000) $\qquad$ Assistant Professor of Political Science B.S., Ph.D., Rutgers, The State University of New Jersey.

Addo, Theophilus (1987) 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) ........................................................... Professor of Economics B.A., Ph.D., University of New Mexico.

Aguado, Edward (1982) $\qquad$ Professor of Geography B.A., M.A., University of California, Los Angeles; Ph.D., University of Wisconsin.

Aguilar, Isabel (1972)...
$\qquad$ Imperial Valley Campus
A.B., M.S., San Diego State University.

Aistrich, Matti (2002)
..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) $\qquad$ 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.

Alegria, Adelina V. (1999)...................Assistant Professor of Policy Studies in Language and Cross-Cultural Education
B.A., California State University, Dominguez Hills; Ph.D., University of California, Santa Barbara.
Alexseev, Mikhail A. (2000). $\qquad$ Associate Professor of Political Science B.A., M.A., Kiev State University; Ph.D., University of Washington.

Alfonso-Reese, Leola A. (1999). $\qquad$ .. Assistant Professor of Psychology S.B., Massachusetts Institute of Technology; Ph.D., University of California, Santa Barbara.
Alger, Christianna (2002) .................................Assistant Professor of Teacher Education B.A., San Francisco State University; M.A., Mills College; Ph.D., Loyola University.

Alkebulan, Adisa A. (2002) .................................Assistant Professor of Africana Studies B.A., Kent State University; M.A., Ph.D., Temple University.

Allen, Brockenbrough S. (1982)..............................Professor of Educational Technology A.B., M.A., University of California, Berkeley; Ph.D., University of Southern California.

Allen, Elizabeth J. (1971)............. Professor of Speech, Language, and Hearing Sciences A.B., Seattle Pacific College; M.A., Ph.D., Louisiana State University.

Allison, Alida L. (1990) ..........................Professor of English and Comparative Literature B.A., M.A., San Diego State University; Ph.D., University of California, Riverside.

Almond, Frank W. (1968) $\qquad$ ... Professor of Music A.B., M.A., San Diego State University; Ph.D., Florida State University.

Alvarado, Elizabeth R. (1974) $\qquad$ Counselor, Educational Opportunity and Ethnic Affairs
A.B., California State University, Northridge; M.S., San Diego State University.

Alvarado, José L. (1999)................................... Assistant 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 B.A., Westfield State College; M.A., Ed.D., University of Massachusetts at Amherst.

Amoroso, Donald (2001) ........ Associate Professor of Information and Decision Systems B.B.A., Old Dominion University; M.B.A., Ph.D., University of Georgia.

Amtower, Laurel (1997) .................................................. Associate Professor of English B.A., University of California, Irvine; M.A., Ph.D., University of Washington.

Amuedo-Dorantes, Catalina (1999) ............................. Assistant Professor of Economics B.A., University of Sevilla, Spain; M.A., Ph.D., Western Michigan University.

Anantha, Kasi (1981) $\qquad$ Professor of Computer Science B.A., M.Sc., Ph.D., Madras University.

Andersen, Janis F. (1981) $\qquad$ Interim Dean of the Graduate Division; Professor of Communication B.A., M.A., Bradley University; Ed.D., West Virginia University.

Andersen, Peter A. (1981, except 1983-85) ........................ Professor of Communication B.A., University of Illinois; M.S., Illinois State University; Ph.D., Florida State University.

Anderson, Bonnie M. (1988) $\qquad$ .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) $\qquad$ Assistant Professor of Physics B.S., University of California, San Diego; Ph.D., University of Oregon.

Anderson, Todd W. (1999) $\qquad$ ..Assistant Professor of Biology B.S., M.A., California State University, Fresno; Ph.D., University of California, Santa Barbara.
Angelelli, Claudia V. (2001)
.Assistant Professor of Spanish B.A., Universidad Catolica Argentina; M.A., Monterey Institute of International Studies; Ph.D., Stanford University.
Angelini, Philip T. (2001) $\qquad$ Associate Professor of Naval Science B.A., University of California, Berkeley; M.A., Troy State University.

Angione, Ronald J. (1969) ............................................................Professor of Astronomy A.B., M.S., San Diego State University; Ph.D., University of Texas.

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). $\qquad$ ley.
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.
Arquette, Cecile M. (2002) .............................Assistant Professor of Teacher Education, Imperial Valley Campus
B.A., Mary Washington College; M.A., Columbia University; Ph.D., New Mexico State University.
Atkins, Bobbie J. (1989). $\qquad$ Professor of Administration, Rehabilitation and Postsecondary Education
B.A., Southern University in Baton Rouge; M.S., Ph.D., University of Wisconsin, Madison.
Atkins, Catherine J. (1988) $\qquad$ ..Associate Dean for Undergraduate Studies, College of Sciences; Professor of Psychology
A.B., M.S., San Diego State University; Ph.D., University of California, Riverside.

Aufsesser, Peter M. (1975) ...................... Professor of Exercise and Nutritional Sciences B.S., Springfield College; Ed.M., State University of New York, Buffalo; Ph.D., University of Maryland.
Austin, Joan F. (1970). $\qquad$ ..Professor of Art, Design and Art History A.B., California State University, Long Beach; M.F.A., Cranbrook Academy of Art.

Avery, Cynthia M. (2000). $\qquad$ Assistant Dean for Student Life, Student Affairs B.A., State University of New York at Geneseo; M.S.Ed., Alfred University.

Avila, Vernon L. (1973). $\qquad$ Associate Professor of Biology B.S., University of New Mexico; M.A., Northern Arizona University; Ph.D., University of Colorado.
Baber, Carolyn D. (1987) $\qquad$ .. Associate Librarian B.S., Illinois State University; M.S., University of Illinois at Urbana-Champaign.

Badrinath, Swaminathan G. (2000) $\qquad$ .. 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.

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) .................................. 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) .............................................Assistant 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.
Ball, Joseph W. (1975). $\qquad$ 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)...................... 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) ........................................Associate Professor of Philosophy B.S., University of Scranton; Ph.D., Marquette University.

Bar-Lev, Zev (1979) .................................................................Professor of Linguistics A.B., Columbia College; M.A., Cornell University; Ph.D., Indiana University.

Barlow, Jessica A. (1997) .......................Associate Professor of Speech, Language, and Hearing Sciences B.A., M.A., Ph.D., Indiana University.

Barnett, Andrew H. (1983) $\qquad$ B.B.A., M.B.A., Baylor University; Ph.D., Texas Tech University

Baron, Lawrence (1988)...................... The Nasatir Professor of Modern Jewish History; Professor of History
B.A., University of Illinois; M.A., Ph.D., University of Wisconsin.

Barrio, Concepcion (1998) $\qquad$ .Associate Professor of Social Work B.A., Loyola Marymount University; M.S.W., Ph.D., University of Southern California.

Bart, Kenneth J. (1998). $\qquad$ .Professor of Public Health A.B., Middlebury College; M.P.H., M.S., Harvard University; M.D., State University of New York Health Science Center at Syracuse.
Basom, Margaret R. (1999) .................... Associate Professor of Educational Leadership B.A., St. Thomas University; M.S., Southern Connecticut State University; Ph.D., University of Wyoming.
Bayasi, M. Ziad (1990).........Associate 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). $\qquad$ .Professor of Computer Science A.B., Rice University; M.A.S., Ph.D., Southern Methodist University.

Bekins, Linn K. (1999).....................Assistant Professor of Rhetoric and Writing Studies B.A., University of San Diego; M.A., University of British Columbia; Ph.D., University of Utah.
Belanger, Jon C. (2002) $\qquad$ Assistant Professor of Naval Science B.A., University of Florida; M.A., Naval Postgraduate School.

Belch, George E. (1980). $\qquad$ B.S., Pennsylvania State University; M.S., University of Colorado; Ph.D., University of California, Los Angeles.
Bender, Stephen J. (1970)
..Professor of Public Health B.S., Brockport State University; M.S., H.S.D., Indiana University; M.P.H., University of California, Los Angeles.

Benkov, Edith J. (1983) ................................................................ Professor of French B.A., M.A., Ph.D., University of California, Los Angeles.

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.
Bergdahl, B. Mikael (1999) $\qquad$ Assistant Professor of Chemistry B.S., M.S., Ph.D., Chalmers University of Technology, Sweden.

Bernstein, Sanford I. (1983) ......................................................... Professor of Biology B.S., State University of New York at Stony Brook; Ph.D., Wesleyan University.

Berta, Annalisa (1982). $\qquad$ . Professor of Biology B.A., University of Washington; Ph.D., University of California, Berkeley.

Berteaux, John A. (1995). $\qquad$ Assistant Professor of Philosophy B.A., San Diego State University; M.A., Ph.D., University of California, San Diego.

Beshgetoor, Donna L. (1996)....Associate Professor of Exercise and Nutritional Sciences B.S., Michigan State University; M.S., University of Nebraska; Ph.D., University of California, Davis.
Betancourt, Ramon (1984).
Associate Professor of Electrical and Computer Engineering
B.S., University of Guadalajara; M.A., Technological Institute of Monterrey; M.A., Ph.D., University of Wisconsin, Madison.
Bezuk, Nadine S. (1987) ............................................... Professor of Teacher Education B.S., University of Pittsburgh; M.A., Ph.D., University of Minnesota.

Bhattacharjee, Subrata (1991) ...............................Professor of Mechanical Engineering B.Tech., Indian Institute of Technology, India; M.S., Ph.D., Washington State University.

Birch, Wendy S. (2001) $\qquad$ Assistant Professor of Aerospace Studies B.S., Park College; M.S.A., Central Michigan University.

Bizzoco, Richard L. (1977). Professor of Biology A.B., University of Connecticut; M.S., California State University, Long Beach; Ph.D., Indiana University.
Blair, Sue (1995) ..............................................................Director, Personnel Services B.A., San Diego State University.

Blenner, Janet L. (1986) ...............................................................Professor of Nursing B.S.N., Long Island University; M.A., Ph.D., New York University.

Block, Martin J. (1979) ..................................Director, Compliance and Policy Analysis, Student Affairs
B.A., Indiana University; J.D., DePaul University.

Block, Russell L. (1969) $\qquad$ ..Associate Professor of Finance A.B., San Diego State University; J.D., University of California, Berkeley.

Blomgren, Peter (2002). $\qquad$ .. Assistant Professor of Mathematics M.Sc., The Royal Institute of Technology, Stockholm; Ph.D., University of California, Los Angeles.
Blue, Carroll Parrott (1984) $\qquad$ Professor of Theatre, Television, and Film B.A., Boston University; M.F.A., University of California, Los Angeles.

Bober, Marcie J. (1994, except F'95-S'96) ................ Assistant Professor of Educational Technology
B.A., University of Oregon; M.A., San Diego State University; Ph.D., Arizona State University.
Boccolucci, Michael A. (2002)...............................Assistant Professor of Naval Science B.A., University of Arizona.

Boddy, Raford D. (1980) $\qquad$ Professor of Economics A.B., University of California, Riverside; Ph.D., University of Michigan.

Bohonak, Andrew J. (2000) $\qquad$ .Assistant Professor of Biology B.S., Allegheny College; Ph.D., Cornell University.

Bordelon, Suzanne (2002) ............... Assistant Professor of Rhetoric and Writing Studies B.A., University of Washington; M.A., California State University, Chico; Ph.D., University of Oregon.
Borden, Diane L. (1998) $\qquad$ Executive Assistant to the President; Professor of Communication
B.A., Colorado State University; M.A., Stanford University; Ph.D., University of Washington.
Bosco, Fernando (2002). $\qquad$ Assistant Professor of Geography B.A., Wittenberg University; M.A., Ph.D., Ohio State University.

Bost, John C. (1979) $\qquad$ .. Professor of Finance B.S., San Diego State University; J.D., Hastings College of the San Francisco Law.

Bowers, Janet Sue (1996).......................................Associate Professor of Mathematic B.A., Bucknell University; M.A., Villanova University; Ph.D., Vanderbilt University.

Boyd, Richard B. (1996). .. Associate Professor of Rhetoric and Writing Studies B.A., University of San Diego; Ph.D., University of California, San Diego.

Boyd, William D. (1986) Student Affairs
B.A., M.Ed., Pennsylvania State University.

Branch, Andre J. (1999) $\qquad$ ...Assistant Professor of Teacher Education B.A., King's College; M.Ed., North Carolina State University; Ph.D., University of Washington.
Brandon, Frank E. (2001) $\qquad$ Assistant Professor of Naval Science B.S., United States Naval Academy.

BreindI, Michael J. (1986) $\qquad$ M.S., University of Hamburg; Ph.D., Kiel University.

Brodine, Stephanie Kay (1998). $\qquad$ D., Georgeto
own University
Brooks, Richard D. (1995)......................................................................... B.S., M.B.A., San Diego State University.

Broom, Betty L. (1979, except F'85-S'86) .. .... Associate Professor of Nursing B.S.N., University of Illinois; M.S.N., University of Wisconsin, Madison; Ph.D., University of Texas at Austin.
Broom, Glen M. (1979) $\qquad$ .. Professor of Communication B.S., M.S., University of Illinois; Ph.D., University of Wisconsin.

Brown, Harold K. (1971) ........... Associate Dean for Community Economic Development, College of Business Administration
A.B., San Diego State University; M.B.A., Fordham University.

Brown, Stephanie A. (2001).......... Psychologist, Counseling and Psychological Services B.S., University of Illinois at Urbana-Champaign; M.A., California State University, Los Angeles; Ph.D., University of Georgia.
Brunner, Eric J. (1995)
Associate Professor of Economics B.A., University of Connecticut; M.A., Ph.D., University of California, Santa Barbara.

Bryson, Jeff B. (1970) $\qquad$ Professor of Psychology A.B., University of Texas; M.S., Ph.D., Purdue University.

Buck, Robert E. (1969) ...............................................Ass
B.S., M.S., Trinity University; Ph.D., University of Texas.
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.
Burkett, Richard A. (1989)
Professor of Art, Design and Art History B.A., Lawrence University; M.F.A., Indiana University, Bloomington.

Burkey, David J. (1997).. Assistant Professor of Chemistry B.S., Colorado School of Mines; M.S., Ph.D., Vanderbilt University.

Burns, James S. (1994).......................... Associate Professor of Mechanical Engineering B.S., Pennsylvania State University; Ph.D., University of Delaware.

Burns, Kevin (1998)....................................................... Assistant Professor of Biology B.S., Texas A \& M University; M.S., Louisiana State University; Ph.D., University of California, Berkeley.
Burt, Sharon D. (1987) ...................................................Assistant Professor of Nursing B.S., San Francisco State University; M.S.N., D.N.Sc., University of San Diego.

Butler, Gerald J. (1968)................................................................ Professor of English A.B., University of California, Berkeley; M.A., Ph.D., University of Washington.

Buyuksonmez, Fatih (2001).
.Assistant Professor of Civil and Environmental Engineering
B.S., Middle East Technological University; M.E., Ph.D., University of Idaho.

Byxbee, William (2000) $\qquad$ Dean, College of Extended Studies B.A., University of Connecticut; Ed.D., University of Massachusetts.

Cadiero-Kaplan, Karen (2001) ..... Assistant Professor of Policy Studies in Language and Cross-Cultural Education
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)..................................... Assistant Professor of Asia Pacific Studies B.A., Shanghai International Studies University, China; M.A., University of Waterloo, Canada; Ph.D., Queens University, Canada.
Calavita, Nico (1980) ....................Professor of Public Administration and Urban Studies Ph.D., University of Florence, Italy.
Calfas, Karen (1992) .................... Director of Health Promotion, Student Health Services B.A., Pacific Lutheran University; Ph.D., San Diego State University and University of California, San Diego.
Capettini, Robert J. (1985) $\qquad$ . Professor of Accountancy B.B.A., M.B.A., University of Toledo; Ph.D., University of Illinois at Urbana-Champaign.

## Cappello, Marva (2000)

$\qquad$ Assistant Professor of Teacher Education B.F.A., Rochester Institute of Technology; M.S., The City University of New York, Hunter College; Ph.D., University of Southern California.

Carande, Robert J. (1987) $\qquad$ 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) $\qquad$ Professor of Chemistry B.S., University of California, Santa Barbara; Ph.D., Texas A\&M University.

Carretero, Ricardo (2002) $\qquad$ ... Assistant Professor of Mathematics B.Sc., Universidad Nacional de Mexico; Ph.D., University of London.

Carrilio, Terry E. (2002) ...............................................Assistant Profes B.A., Lebanon Valley College; M.S.S., Ph.D., Bryn Mawr College.

Carroll, John L. (1979). $\qquad$ .. Professor of Computer Science B.S., Northern Arizona University; M.S., Ph.D., University of Nebraska.

Carruthers, David V. (1995) . $\qquad$ . 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) $\qquad$ Professor of Mathematics B.S., Universidad Central de Venezuela; M.A., University of Texas at Austin; Ph.D., University of New Mexico.
Castle, Evangeline M. (1996) ......Associate Director, Educational Opportunity and Ethnic Affairs, Student Affairs
B.A., Grambling State University; M.A., Ohio University; Ph.D., Texas A \& M University.

Caves, Roger W. (1983)................ Professor of Public Administration and Urban Studies B.A., M.U.S., Old Dominion University; Ph.D., University of Delaware.

Cawthorne, Jon E. (2002) ... $\qquad$ Associate Librarian B.A., Evergreen State College; M.L.S., University of Maryland at College Park.

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.
Cegelka, Patricia T. (1980) ............................................. Professor of Special Education B.S., M.S., Ed.D., University of Kansas.

Cervenka, Robin M. (2000). B.S.N., Lander University; M.N., University of South Carolina

Chaffin, Deborah G. (1984) $\qquad$ Associate Professor of Philosophy B.A., University of Oklahoma; Ph.D., State University of New York, Stony Brook.

Chambers, Martin J. (1986).... B.M., M.M., University of British Columbia.

Champion, Laurie (1999)........... Associate Professor of English, Imperial Valley Campus B.A., M.A., University of Texas; M.A., Ph.D., University of North Texas.

Chang, Albert (1991) $\qquad$ . Professor of Public Health B.A., Harvard University; M.P.H., University of California, Berkeley; M.D., University of Rochester.
Chang, Ching-Ten (1979) $\qquad$ .Professor of Electrical and Computer Engineering B.S., National Taiwan Normal University; M.S., North Dakota State University; Ph.D., University of Washington.
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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)...............................................Professor of Biology
Collier, Gerald, Ph.D. (1961-1995)........................................................Professor of Biology
Conly, John F., Ph.D (1962-2003)...............................Professor of Aerospace Engineering and Engineering Mechanics
Conway, John B., Ph.D. (1981-1992) $\qquad$ 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) ............................................ Professor of Physics
Cox, George W., Ph.D. (1962-1996) ......................................................Professor of Biology
Cox, Thomas J., Ph.D. (1975-2000) ............................................... Professor of French
Cox, Thomas R., Ph.D. (1967-1996) ....................................................... Professor 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 Daugherty, Jr., Wayne F., Ph.D. (1966-2000) ..................Associate Professor of Biology 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, Inger P., Ph.D. (1977-1996)..........................................Professor of Social Work Dean, Alfred, Ph.D. (1985-2000) .............................................Professor 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 Denman, Mary Edel, M.A. (1966-1992) .............................Professor of Academic Skills 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).................................... Professor of Psychology

Dickerson, Mary E., Ph.D. (1967-1990) ............... Assistant Professor of Family Studies and Consumer Sciences
Dickinson, Fidelia R., Ph.D. (1966-1990)..................................................... Librarian
Diehl, William P., Ph.D. (1968-1997) ............................. Associate Professor of Biology Dillon (Salerno), M. Constance, M.S. (1964-1992)....................... Professor of Nursing
Dirks, John H., M.F.A. (1947-1976) ..................................................... Professor of Art Dirksen, Dennis A., Ed.D. (1969-1992)..................... Professor of Industrial Technology
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 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
Downing, Christine R., Ph.D. (1974-1992) ...................... Professor of Religious Studies
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) $\qquad$ Professor of Russian
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
Eagle, John, Ed.D. (1946-1974) ..............................................Professor of Mathematics
Earnest, Sue W., Ph.D. (1947-1973) ........ Professor of Speech Pathology and Audiology
Ebert, Thomas A., Ph.D. (1969-1999)........................................... Professor of Biology
Eidemiller, Donald I., Ph.D. (1956-1983) .................................Professor of Geography
Eisemann, Kurt, Ph.D. (1982-1992) ........................Professor of Mathematical Sciences
EI-Assal, Mohamed M.E., Ph.D. (1967-1992) ............................ Professor of Sociology
Elgin, Suzette, Ph.D. (1972-1981)..............................Associate Professor of Linguistics
Elliott, Rosalie C., Ph.D. (1968-1982) ......................Professor of Elementary Education
Erickson, Paul, Ed.D. (1963-1986)................................ Professor of Teacher Education
Erzen, Paul E., Ph.D. (1978-1987) ........................ Associate Professor of Management, Imperial Valley Campus
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
Faulkner, D. George, M.S. (1983-1992).................... Lecturer in Aerospace Engineering and Engineering Mechanics
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)............................. 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
Ferrel, 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
Flagg, Joan M., Ph.D. (1969-2002) .............................. Associate Professor of Nursing
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
Franzini, Louis R., Ph.D. (1969-2001) ......................................Professor of Psychology
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)...............................Associate Professor of Biology
Gallo, Jr., Philip S., Ph.D. (1963-1996)...................................Professor of Psychology

| nge, Samuel J., Ed.D. (1969-1995) Psychological Services |
| :---: |
| n, Betty B., Ph.D. (1962-1996) ...................Professor of Mathematica |
| on, John D., Ph.D. (1956-1983) |
| ast, David K., Ed.D. (1963-1991) |
| (1959-1993) ...................... Professor of Geologile |
| Gates, Gerald F., Ed.D. (1955-1986) |
| efter, Irving, Ph.D. (1970-1992) |
| ga, Peter C., Ed.D. (1955-1987) |
| enzlinger, Cleve K., M.M. (1957-1991) |
| hilbert, Jeanne S., M.A. (1965-1982) |
| Ghorpade, Jaisingh V., Ph.D. (1965-2000) ......................... Professor of Manag |
| bson, E. Dana, Ph.D. (1947-1971) |
| ifford, Adam, Ph.D. (1954-1989) |
| Illette, Thomas L., Ph.D. (1961-1989).................................Professor of Soci |
| ndler, Herbert A., Ph.D. (1960-1992). |
| Gitchoff, G. Thomas, D.Crim. (1969-2001) $\qquad$ Professor of Public and Urban Studies |
| (1961-1992) ................................ Professor of Anthropology |
| oodson, Roger A., Ed.D. (1968-1988) |
| oodwin, Joann P., M.L.S. (1968-1991) |
| yne, Carol L., M.A., M.S.L.S. (1969-20 |
| Granrud, Carolyn A., B.S.L.S. (1960-1987) |
| Grant-Henry, Sharon, Ph.D. (1986-1998) $\qquad$ Associate Professor of Couns and School Psychology |
| rawunder, Ralph M., Ed.D. (1955-1991)..................... Professor |
| ray, Robert T., Ed.D. (1956-1987) |
| een, Louis C., Ph.D. (1976-2003) |
| reenwood, Ned H., Ph.D. (1964-1995) ............................... Professor of Geogra |
| iffin, Herschel E., M.D. (1980-1987) ..............................Professor of Public H |
| Griffin, Ronald W., Ph.D. (1967-2001) ................................Professor of Socia |
| ipp, Richard C., Ph.D. (1958-1985) ...........................Professor of Politica |
| roff, Patrick J., Ed.D. (1955-1981)........................ Professor of Elementary Educa |
| Gross, George C., Ph.D. (1961-1985) $\qquad$ Professor of English Comparative Literature |
| ossberg, John M., Ph.D. (1962-1995) ............................... Professor of Psychology |
| rubbs, Edward J., Ph.D. (1961-1997) ..................................Professor of Chemistr |
| Guidry, Rosalind, Ph.D. (1970-1989) .......................Associate Professor of So |
| Gulino, Claire, Ed.D. (1982-1991)........................................... Professor of Nurs |
| Gunning, Barbara E., Ph.D. (1969-1988) $\qquad$ Professor of Family Studies Consumer Sciences |
| Physical Education |

Haas, Robert W., Ph.D. (1967-1997)..........................................Professor 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
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) ....................................Professor of Recreation
Harari, Herbert, Ph.D. (1966-1987)........................................ Professor of Psychology
Harder, Donald F., Ed.D. (1960-1983) .............................. Counselor, Counseling Services
Harmon, James E., Ph.D. (1964-1981) ..........................Associate Professor of Political Science, Imperial Valley Campus
Harris, Mary E., M.A.L.S. (1982-1992). $\qquad$ .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)


Professor of Theatre
Harvey, A. Raymond, Ph.D. (1949-1983) .................Professor of Mathematical Sciences Harvey, Michael L., Ph.D. (1969-2001) $\qquad$ Professor 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 O., D.S.W. (1966-1987)...................................Professor of Social Work Hazen, William E., Ph.D. (1962-1988)..........................................Professor of Biology

Head, Gerald L., Ph.D. (1964-1999) ............................................ Professor 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
Henderson, Joel H., Ph.D. (1971-2000).....................Professor of Public Administration and Urban Studies
Hewes, Dorothy W., Ph.D. (1974-1992)........................ Professor of Family Studies and Consumer Sciences
Heyman, Neil M., Ph.D. (1969-2002)
Professor of History
Higgins, Winifred H., Ph.D. (1964-1983). Professor of Art

Hill, Jr., Richard B., Ph.D. (1969-1999) ....................... Assistant Professor of Sociology, Imperial Valley Campus
Hill, Wayne O., Ed.D. (1955-1983) ...........................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) ...................................... Professor of Finance Ho, Hung-Ta, Ph.D. (1966-1991)............................Professor of Mathematical Sciences Hobbs, John A., Ph.D. (1964-1998) .................. Associate Professor of Political Science Hogg, Merle E., Ph.D. (1962-1992) ................................................ Professor of Music Holmes, Calvin V., Ph.D. (1956-1992) ....................Professor of Mathematical Sciences Hoover, Grace V., B.S.L.S. (1956-1981) .........................................Associate Librarian Hopkins, Jack R., M.F.A. (1961-1986) ................................................. Professor of Art Hopkins, Ronald H., Ph.D. (1991-1998) ................. Vice President for Academic Affairs; Professor of Psychology
Hostetler, David K., Ed.D. (1966-1982)........................................................ Counselor Hough, Richard L., Ph.D. (1983-2001) ...................................... Professor of Sociology
Houston, Jr., Arthur L., Ph.D. (1986-2002)..................................... Professor of Finance
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
Hungate, Robert P., Ph.D. (1961-1987, except 1965-1969) ............ Professor of Finance Hunrichs, William A., Ph.D. (1957-1985).................................Professor of Psychology
Hunsaker, II, Don, Ph.D. (1960-1996)............................................ Professor of Biology
Hunter, Lawrence B., M.A. (1963-1989) $\qquad$ Professor of Art
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)
9) .................................... Ingmanson, Dale E., Ed.D. (1968-1999) .......................... Professor of Teacher Education Inskeep, Jr., James E., Ph.D. (1960-1990).................... Professor of Teacher Education Iosupovici, 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
Jameson, K. Charles, Ph.D. (1965-1995) .......................... Professor of Communication
Janssen, Henry L., Ph.D. (1953-1988)............................. Professor of Political Science
Jencks, Clinton E., Ph.D. (1964-1986)......................................Professor of Economics
Jensen, Reilly C., Ph.D. (1958-1992) ........................................ Professor of Chemistry
Jiménez-Vera, Arturo, Ph.D. (1970-1992) ............................................ Professor of Spanish
Johns, 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)
Johnson, Albert W., Ph.D. (1964-1991) ................... Vice President for Academic Affairs; Professor of Biology
Johnson, Gerald G., Ph.D. (1978-2002). $\qquad$ . Professor of Biology
Johnson, Joseph S., Ph.D. (1967-1999)

Johnson, Kenneth D., Ph.D. (1972-2001) $\qquad$ Professor of Biology Johnson, Philip E., M.S.C.E. (1958-1987) ........................ Professor of Civil Engineering Johnson, Warren A., Ph.D. (1969-1997) .................................. Professor of Geography Johnson, Willard L., Ph.D. (1977-2001, except F'80-S'81 and S'83) ..........Professor of Religious 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) ................................................Professor 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) $\qquad$ .Professor of Social Work
Kahng, Tae Jin, Ph.D. (1962-1994) ................................... Professor of Political Science
Karen, Robert L., Ph.D. (1964-1985) ...................................... Professor of Psychology
Kasch, Frederick W., Ed.D. (1948-1981)....................... Professor of Physical Education
Kass, Norman, Ph.D. (1961-1997) ......................................... Professor of Psychology
Keen, Elmer A., Ph.D. (1967-1989)
............................................ P Professor of Geography
Kehler, Dorothea F., Ph.D. (1970-2001).
........................................ Professor of English
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 Kendall, W. Lloyd, Ed.D. (1961-1992)............................Professor of Teacher Education Kennedy, Will C., Ph.D. (1967-2001) ..........................Associate Professor of Sociology Kern, J. Philip, Ph.D. (1968-1994) $\qquad$ 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).

Professor of Exercise and Circulation Librarian
Kitchen, James D., Ph.D. (1957-1981) ............... Professor of Public Administration and Urban Studies
Kitzinger, Angela M., Ph.D. (1945-1969) ............ Professor of Health Science and Safety Klann, Corinne F., M.A. (1962-1983).......... Assistant Professor of Elementary Education 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). $\qquad$ 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 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 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 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 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, Raymond, Ph.D. (1977-1992)............................. Associate Professor of Psychology

Lee, Robert E., M.A. (1956-1983)................ Professor of Telecommunications and Film Leerhoff, Ruth E., M.A. (1964-1991).............................................................. Librarian Lemus, George, Ph.D. (1960-1991) ............................................. Professor of Spanish Leslie, Norman C., M.N. (1969-1988) ............................Assistant Professor of Nursing Levine, Joseph R., Ph.D. (1965-1995).....................................Professor of Psychology Lewin, Harlan J., Ph.D. (1967-2000) ................. Associate Professor of Political Science Lienert, Charles, Ed.D. (1954-1977) ..................Professor of Educational Administration 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) ................................... Professor of Marketing 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) ........................................... Professor of Art Loomis, David M., M.M. (1961-1983) ............................. Associate Professor of Music Lybarger, Alvin E., Ed.D. (1970-1992) ... Associate Professor of Mechanical Engineering Lynn, Elizabeth, Ph.D. (1963-1988) .........................Associate Professor of Psychology MacDonald, Gretchen, Ph.D. (1966-1981)............... Associate Professor of Study Skills Macky, David W., Ph.D. (1969-1998) ...............Associate Professor of Mathematical and Computer Sciences
Madhavan, Murugappa C., Ph.D. (1968-1999) ....................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
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, Joan L., Ed.D. (1970-1992) .....................................Professor of Family Studies and Consumer Sciences
Martin, Mary F., M.S. (1958-1980) ...................... Assistant Professor of Family Studies and Consumer Sciences
Martinez, Julio A., Ph.D. (1973-1992) .............................................Associate Librarian
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
McBlair, William, Ph.D. (1948-1982)................................................. Professor of Biology
McClard, Q. Donavon, Ph.D. (1966-1986) ....................... Professor of Special Education McClurg, Jack, Ph.D. (1962-1991).......................................... Professor of Philosophy
McCordick, Sharon M., Ph.D. (1969-2001)...............Associate Professor of Psychology
McCoy, Leone D., Ph.D. (1967-1990) ............................ Professor of Teacher Education
McDonald, Roy D., Ph.D. (1963-1992) .....................................Professor of Psychology
McEowen, R. Harold, Ph.D. (1967-1992) ....Associate Professor of Industrial Technology
McEuen, Robert B., Ph.D. (1969-1979) ...................... Professor of Geological Sciences
McFall, John B., Ph.D. (1966-1985) ......................................... Professor of Marketing
McGhie, Robert D., Ph.D., Professional Degree in Mechanical Engineering
(1967-1997)................................. Professor of Civil and Environmental Engineering
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) $\qquad$
Miller, Ralph Llewellyn, Ph.D. (1963-1996) Professor of Political Science 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) $\qquad$ 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, Chesney R., Ph.D. (1931-1972) ........................................... Professor of Physics
Moe, Jean T., M.A. (1966-1983).......................................Associate Professor of Music
Moffett, Myrna J., Ph.D. (1968-1998) .............................Assistant Professor of Nursing
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
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
Nagel, 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)
2) ............................... Pr rofessor 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
Neuner, Jr., Edward J., Ph.D. (1957-1986) ............................... Professor of Economics
Neyndorff, Hans, Doctorandus (1962-1983) ...........................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
Norland, Calvert E., M.S. (1947-1976).......................................... Professor of Zoology
Norman, Nelson F., Ph.D. (1960-1983)
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) $\qquad$ 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). 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
O'Neal, H. Edward, Ph.D. (1961-1994) Professor of Chemistry
O'Reilly, Nathalia Crane, Special Study at Barnard College, University of Madrid, and Sorbonne (1958-1983) ........................................ Assistant Professor of English and Comparative Literature
O'Reilly, Peter, Ph.D. (1968-1983).. $\qquad$ Professor of Philosophy
Orth, Fredrick J., M.F.A. (1965-2001) ............... Professor of Art, Design and Art History
Padgett, L. Vincent, Ph.D. (1956-1992)..
)............................ . Professor of Political Science
Palmer, Dennis, A.B. (1965-1997) Associate Professor of French
Panos, Nicholas, M.S.E.E., Professional Degree in Electrical and Computer
Engineering (1968-2001) ...............Professor of Electrical and Computer Engineering
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
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)...............................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
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) ......................................... Professor of Biology
Pierson, Albert Chad, Ph.D. (1954-1983) .............................. Professor of Management
Pincetl, Jr., Stanley J., Ph.D. (1955-1986).................................... Professor of History
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
Prouty, Helen L., Ph.D. (1950-1976)...............................Professor of Secondary Education
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
Rader, Daniel L., Ph.D. (1954-1983) Professor of History
Radlow, Robert, Ph.D. (1968-1999).........................................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) . $\qquad$ Professor of Biology
Ray, Eugene A., M.F.A. (1969-1996) $\qquad$ 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 Reichert, Kurt, Ph.D. (1970-1981) 1992 $\square$
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 Riggs, Dorothy J., Ed.D. (1966-1986) $\qquad$ Professor of Teacher Education Riggs, Lester G., Ph.D. (1950-1978, except 1951-1952) $\qquad$ .. 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 Robbins, Stephen P., Ph.D. (1979-1993) ............................... Professor of Management Roberts, Ellis E., Ph.D. (1949-1979) ........................... Professor of Geological Sciences Rodin, Miriam J., Ph.D. (1966-1999)..................................... Professor of Psychology Rogers, John J., M.S. (1963-1996) ......................................................Professor of Art Rohrl, Vivian J., Ph.D, (1965-2001)..................................... Professor of Anthropology Rollefson, Gary O., Ph.D. (1984-1992) ................................. Professor of Anthropology Romano, Albert, Ph.D. (1963-1990)........................Professor of Mathematical Sciences Rosenbaum, Gerald, Ph.D. (1989-1994) .................................... Professor of Psychology Ross, 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 Rost, Norman, M.M. (1951-1977) .. $\qquad$ Professor of Music Rowland, Monroe K., Ph.D. (1960-1992).......................Professor of Teacher Education 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)
Sandelin, Mary Lee, M.L.S. (1968-1983)
Sanderlin, George W., Ph.D. (1954-1983) .............................. Professor of English and Comparative Literature
Sanders, Frederick C., Ph.D. (1967-1981)......................Associate Professor of Speech Communication
Sandlin, Joann S., Ph.D. (1967-1994) ....................................... Professor of Sociology
Sandstrom, Glenn A., Ph.D. (1956-1983) ............................... Professor of English and Comparative Literature
Sanner, Richard L., Ed.D. (1965-1981) ............................................... Media Specialist
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 Schalles, Frances I., A.B. (1950-1968)...................Education and Curriculum Materials Librarian
Schapiro, Harriette C., Ph.D. (1966-1990).....................................Professor of Biology
Schatz, Arthur W., Ph.D. (1963-1992) ........................Assistant Dean, Graduate Division and Research; Professor of History
Scheck, Dennis C., Ph.D. (1968-2001). $\qquad$ Professor of Sociology
Schlesinger, Robert J., Ph.D. (1984-1997) 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 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) $\qquad$ Professor of Spanish Segal, Evalyn F., Ph.D. (1973-1983) ........................................... Professor of Psychology 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 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
Sheposh, John P., Ph.D. (1968-2000) ......................................Professor of Psychology
Sheres, Ita G., Ph.D. (1971-2001) ........ Professor of English and Comparative Literature
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
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
Shull, Jr., Charles M., Ph.D. (1969-1983) ......................... Professor of Natural Science
Shutts, William H., Ph.D. (1958-1977)...................Professor of Aerospace Engineering
Siman, Alan E., Ph.D. (1974-2002).........................Associate Professor of Social Work
Singer, Jr., Arthur, Ph.D. (1959-1983) ............................Professor of Special Education
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
Sloan, William C., Ph.D. (1961-1990) ........................................... Professor of Biology
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
Snider, Mervin S., M.A. (1953-1983)............................................... Professor of Music
Snudden, Leslie W., D.B.A. (1959-1987).................................Professor of Accountancy
Snyder, William S., Ph.D. (1960-1990) ................................... Professor of Philosophy
Somerville, Rose M., Ed.D. (1967-1977)...................... Professor of Family Studies and Consumer Sciences and Sociology
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
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
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
Steele, Richard W., Ph.D. (1967-1996) ........................................ Professor of History
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
Storm, Alvena S., M.A. (1926-1966). $\qquad$ Professor of Geography
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
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
Strong, Douglas H., Ph.D. (1964-1990) $\qquad$ Professor of History
Stuart, Robert J., Ph.D. (1969-1987) $\qquad$ rofessor of Electrical and Computer Engineering
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
Szabo, Andrew, Ph.D. (1955-1978) .. $\qquad$ 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
Tanzer, JoAnn L., Ed.D. (1956-1986).................................................... Professor of Art
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
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
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
Turner, Merle B., Ph.D. (1950-1974)....................................... Professor of Psychology
Vails-Weber, Dorothy V., M.A. (1970-1998).................................................. Counselor
Valle, Juan Ramon, Ph.D. (1974-1996) ...................................Professor of Social Work
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 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
Walch, Jr., Henry A., Ph.D. (1955-1985) ........................................ Professor of Biology
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
Warren, Edward W., Ph.D. (1963-1990).................Professor of Philosophy and Classics Watson, Lawrence C., Ph.D. (1967-1992) .............................Professor of Anthropology
Webb, Charles R., Ph.D. (1949-1972, except 1965) ...................... Professor of History
Wedberg, Hale L., Ph.D. (1959-1983) ............................................ Professor of Botany
Weeter, Raymond D., Ph.D. (1966-1991) .......................Associate Professor of Spanish
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
Whitby, Joan A., M.S. (1968-1998)......... Assistant Professor of Exercise and Nutritional Sciences
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
Wilding, John H., Ed.D. (1960-1986)............................ Professor of Teacher Education
Wilhelm, Betty Jane, M.A. (1961-1980) .........Assistant Professor of Physical Education
Willerding, Margaret F., Ph.D. (1956-1976)..............................Professor of Mathematics
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
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
Woodson, John H., Ph.D. (1961-1998) ...................................... Professor of Chemistry
Wotruba, Thomas R., Ph.D. (1962-2000) .................................. Professor of Marketing
Wright, Penny L., Ph.D. (1972-2002)................................... Professor of Management
Wright, Richard D., Ph.D. (1964-2002) ....................................Professor of Geography
Wulbern, Julian H., Ph.D. (1966-1993) ........................................ Professor of German
Wylie, Donald G., Ph.D. (1966-1992) ........... Professor of Telecommunications and Film
Yahr, Charles C., Ph.D. (1955-1988).........................................Professor of Geography
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
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 2002-2003

## ARTS AND LETTERS

Allen, Amy L., M.A., English; Rhetoric and Writing Studies
Alonso-Sed, José, Ph.D., Spanish
Anderson, James T., M.A., Philosophy
Arostegui, Maria Raquel, Ph.D., Spanish
Arzola, Enrique G., M.A., Spanish
Ascanio, Ruben, M.A., Spanish
Bachar, Menache, B.A., Linguistics
Bandini, Martha, M.A., Italian
Barry, Nelly, M.A., Spanish
Beard, Ann, B.A., Arts and Letters, General
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
Bergstrom, Jr., George W., Ph.D., Political Science
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
Brat, Aliza, M.A., Hebrew
Brayton, Elise L., Ph.D., German
Brown, Dawn, M.A., Africana Studies; Rhetoric and Writing Studies
Brush, Barbara, M.A., Rhetoric and Writing Studies
Bryson, Liane, M.A., Rhetoric and Writing Studies
Bucky, Marvelyn, M.A., Rhetoric and Writing Studies
Burke, Jennifer, M.A., Rhetoric and Writing Studies
Butler, Evelyn A., Ph.D., English
Butler, María G., M.A., Chicana and Chicano Studies
Butler, Raymond J., M.A., Economics
Carney, Jane R., Ph.D., Sociology
Carrico, Richard L., M.A., American Indian Studies
Castleman, Bruce A., Ph.D., History
Cavender, Annette, M.A., Rhetoric and Writing Studies
Chagala, James C., Ph.D., Geography
Chang, Grace, Ph.D., French
Chu, Andrea Wong, M.A., Linguistics
Clague, Christopher K., Ph.D., Economics
Clanton, Gordon, Ph.D., Sociology
Conway, Fred J., Ph.D., Anthropology
Coords, Rosa M., Ph.D., Spanish
Copeland, Matthew, M.F.A., Rhetoric and Writing Studies
Costello, Matthew, M.F.A., Rhetoric and Writing Studies
Coto, Nancy M., M.A., Spanish
Crane, Peggy F., M.S., Economics
Crawford, Kathleen A., M.A., History
Croteau, Melissa M., M.A., English
Cruz Piñeiro, Rodolfo, Ph.D., Sociology
Cummings, Tracy C., M.F.A., English
Davidson, Alexandria R., M.A., Economics
Davies, R. Adele, M.A., Arts and Letters, General
Davies-Morris, Gareth N., M.F.A., Humanities
Davies-Netzley, Sally A.L., Ph.D., Sociology
Davis, Clara I., M.A., Spanish
Degueldre, Christian, M.A., Arts and Letters, General; French; Spanish
De La Parra, Maria Luisa, M.A., Spanish
Dirige, Ofelia V., Dr.P.H., Asia Pacific Studies
Eaton, Gerald G., Ph.D., Sociology
Elston, Teresa, Ph.D., Sociology
Emery, Laura C., Ph.D., Rhetoric and Writing Studies
Epps, Richard D., M.A., Political Science
Erickson, Rosemary J., Ph.D., Sociology
Esposito, John M., M.A., Linguistics
Evarkiou, Catherine N., M.A., English

Featherstone, C. Victoria, M.F.A., American Indian Studies; English
Federman, Nancy Jo, Ph.D., Sociology
Fellin, Luciana, Ph.D., Italian
Fielden, Carl, M.A., Rhetoric and Writing Studies
Finn, Richard D., M.A., Rhetoric and Writing Studies
Fischer, Maria, M.B.A., Spanish
Fish, Hedda, M.A., Rhetoric and Writing Studies
Flynn, Matthew J., M.A., History
Fox, Debra A., M.A., Political Science; Sociology
Fox, Jamie, M.A., Rhetoric and Writing Studies
Frampton, Edith E., M.A., English
Freeman, Roderick A., Ph.D., Philosophy
Freilicher, Melvyn S., C.Phil., English
Frey, Rebecca L., M.A., Classics
Galbraith, Mary P., Ph.D., English
Garcia-Tannenhaus, Nuria, M.A., Spanish
Gauss, David R., M.A., Sociology
Gillman, John L., Ph.D., Religious Studies
Godjevac, Svetlana, Ph.D., Linguistics
Gómez, Alexander N., M.A., Chicana and Chicano 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
Grimshaw-White, Margaret L., Ph.D., History
Guthrie, Wayne L., Ph.D., History
Guzman, Christine, M.A., German
Hallett, Melodie J., M.S., Arts and Letters, General
Hay, Jeffrey T., Ph.D., History
Hepp, Beatrice, M.A., Italian
Herrick, Samuel F., Ph.D., Economics
Hill, Jonathan, Ph.D., Economics
Hoffman, Catherine, M.A., Rhetoric and Writing Studies
Holslin, Jill M., Ph.D., English
Ikeda, Junko, M.A., Japanese
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
Jennings, Brian, M.A., Political Science
Johnston, Jr., Henry E., Ph.D., Sociology
Justice, Paul, M.A., Linguistics
Kane, Timothy J., Ph.D., Economics
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
Kong, Xurong, M.A., Linguistics
Kosonoy, Beatriz, M.A., Spanish
Koss-Smith, Erika J., M.A., English
Krancberg, Sigmund, Ph.D., Political Science
Krupa-Kwiatkowski, Magda, Ph.D., Linguistics
Kulkarni, Vijayalakshmi C., Ph.D., Economics
Lake, Daniel R., M.A., Political Science
Laurein, Sofia, M.A., Russian
Lide, Thomas A., M.A., History
Locklear, Linda R., M.A., M.S., American Indian Studies
Lopez, Gonzalo A., M.A., Arts and Letters, General
Luvaas, William H., M.F.A., English
Lyne, Mona, Ph.D., Political Science
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
Mahony, Marlene, M.A., Rhetoric and Writing Studies
Maier, Elizabeth, Ph.D., Arts and Letters, General
Manley, Peter, M.F.A., Rhetoric and Writing Studies
Marsh-Riggs, Dawn, M.A., History
Martin, Stephen-Paul H., Ph.D., English
Martinez, Alexander D., M.A., Chicana and Chicano Studies
McCrone, Patricia G., M.A., Sociology
McKanna, Jr., Clare V., Ph.D., American Indian Studies; History
McNulty, Mark A., M.A., Economics
Mendoza, J. Eduardo, Ph.D., Economics
Mendoza, José L., M.A., Spanish
Mercurio, John, M.A., Political Science
Merritt, Anthony, M.A., Africana Studies
Meyer, Rebecca P., M.A., Linguistics
Michel, Suzanne M., M.A., Political Science
Miller, Joan T., M.A., Anthropology
Minarick, Judith, M.A., Spanish
Moorin, Albert, Ph.D., Rhetoric and Writing Studies
Mueller, Howard R., Ph.D., Philosophy; Religious Studies
Mungaray-Lagarda, Alejandro, Ph.D., Economics
Murillo, Hugo, Ph.D., Arts and Letters, General
Nebel, Grant E., C.Phil., History
Nericcio, Rosalinda F., M.A., Spanish
Nobiletti, Frank, M.A., History
Novak, Tim B., M.A., Sociology
Oh-Surh, Helen R., M.A., Sociology
Osborn, Alan R., Ph.D., Geography
Overton, Shawna D., M.A., Religious Studies
Pedroza, José Carlos, M.A., Spanish
Penafuerte, Araceli S., Ph.D., Philosophy
Phillips, Ashley E., C.Phil., Women's Studies
Potts, Stephen W., Ph.D., English
Putko, Carole A., Ph.D., History
Quan, Nghiep C., M.A., Rhetoric and Writing Studies
Ransom, Holly E., C.Phil., French
Regan, Maria Dolores, M.B.A., Spanish
Reichardt, Kristin, Ph.D., Linguistics
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
Rockland, Steven G., M.A., M.S., Economics
Rodriguez, Barbara, Ph.D., Spanish
Rodriguez, Graciela, M.A., Spanish
Rowden, Tonita H., M.A., English
Roy, Carolyn S., C.Phil., History
Russ, John, M.B.A., Economics
Sadegholvad, Ellie, M.A., German; Linguistics
Salazar, America, M.A., Spanish
Salgado, Elia, M.A., Spanish
Salzmann, Mario, Ph.D., Economics
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
Shahrokhi, Shahrokh, Ph.D., Economics
Shaver, Barbara M., Ph.D., Women's Studies
Shenoy, Vasanthi, Ph.D., Asia Pacific Studies; Sociology
Sherman, Beth, M.A., Rhetoric and Writing Studies
Shillito, Kevin, M.A., Economics
Shumate, Kathleen R., M.F.A., English
Shuster, Alana, M.A., Hebrew
Sigmon, Celia, M.F.A., Rhetoric and Writing Studies
Sipp, Maureen K., M.A., English
Smith, Larry, M.A., Economics
Speckmann, Nancy, M.A., Political Science

Stagnaro, Roberta J., M.A., English
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
Tharaud, Barry, Ph.D., English
Thomas, Jesse J., Ph.D., Religious Studies
Thompson, Cara, M.A., Rhetoric and Writing Studies
Thompson, Mary J., M.A., Rhetoric and Writing Studies
Thorngren, Jane R., Ph.D., Geography
Tierney, Barbara Poe, M.A., Economics
Tipton, Jr., Norman E., J.D., Sociology
Towner, James, M.A., Rhetoric and Writing Studies
Turner, Patricia A., M.A., Rhetoric and Writing Studies
Velasco, Alfredo F., Ph.D., Chicana and Chicano Studies
Vencil, Jon, M.S., Economics
Wawrytko, Sandra A., Ph.D., Asia Pacific Studies; Philosophy
Werner, Roland, Ph.D., Sociology
Wildes, Fred T., Ph.D., Geography
Williams, Julie, M.A., Rhetoric and Writing Studies
Wilson, Erwin, M.A., French
Wilson, Irma G., M.A., Spanish
Wittenborn, Allen, Ph.D., Asia Pacific Studies; History
Wong, Amy C., M.A., Sociology
Yamaga, Hideko, M.A., Japanese
Ysursa, John M., Ph.D., History
Zalloua, Mounir A., M.A., Sociology

## BUSINESS ADMINISTRATION

Allos, Haytham, B.S., Information and Decision Systems
Becker, Timothy A., D.B.A., Marketing
Boyer, Mark, J.D., Accountancy
Brown, Roger J., Ph.D., Finance
Cooper, John, M.S., Accountancy
Dalbey, Richard O., Ph.D., Information and Decision Systems
English, Richard J., M.S., Marketing
Goodfriend, Harvey, M.S., Management
Graf, Paul, J.D., Finance
Harrington, Don L., J.D., Finance
Houskeeper, Robert V., M.S., Accountancy
Hunter, Hugh O., D.B.A., Finance
Jaques, Kathryn M., B.A., Accountancy
Jenkins, William, D.Min., Information and Decision Systems
Kennedy, Martha, M.A., Information and Decision Systems
Ledwith, James W., M.B.A., Accountancy
Lund, Max R., Ph.D., Information and Decision Systems
Monahan, Jean C., J.D., Finance
Mungie, Royal, B.A., Accountancy
Pawar, Anil, Ph.D., Finance
Robbins, Blue, Ed.D., Management
Rubio, Carlos Rodriguez, D.B.A., Management
Ryan, Frank, M.B.A., Finance
Sannwald, William W., M.B.A., Management; Marketing
Shaul, Kelly, J.D., Information and Decision Systems
Viersen, Alan, M.S., Accountancy
Wasson, Dick, M.B.A., Accountancy
Zaki, Monty, M.B.A., Finance

## EDUCATION

Aceves, Edward, Ph.D., Policy Studies in Language and Cross-Cultural Education
Aganza, Joaquin, M.S., Counseling and School Psychology
Alfaro, Cristina, M.A., Policy Studies in Language and Cross-Cultural Education
Anderson, Barry C., M.A., Teacher Education
Aragoza, Dean, M.S., Counseling and School Psychology
Aste, Mirian K., M.A., Policy Studies in Language and Cross-Cultural Education; Teacher Education
August, Carol, M.S., Administration, Rehabilitation and Postsecondary Education
Avant, Bobby J., M.S., Educational Leadership
Babby, Barbara M., B.A., Teacher Education

Barnes, Stephen F., Ph.D., Administration, Rehabilitation and Postsecondary Education Beasley, Edward J., Ph.D., Teacher Education
Begler, Elsie B., Ph.D., Education, General
Bjornson, Patricia J., M.A., Teacher Education
Bloomberg, Leila A., M.A., Teacher Education
Boucher, Barbara O., M.A., Teacher Education
Bowen, Karen, M.A., Teacher Education
Brand, Edward M., Ed.D., Educational Leadership
Butler-Byrd, Nola, M.A., Counseling and School Psychology
Callies, Anne M., M.A., Special Education
Cameron, George, Ph.D., Educational Leadership
Carson, Linda, M.A., Teacher Education
Casey, Michael M., M.A., Educational Technology
Clark, Nelwyn, M.S., Counseling and School Psychology
Collins-Parks, Tamara, M.A., Policy Studies in Language and Cross-Cultural Education Conner, Nona, M.A., Teacher Education
Cookfair, Judith A., M.S., Special Education
Cornell, Marilyn, M.S., Counseling and School Psychology
Cunningham, Rodger, M.S., Teacher Education
Daugherty, Mary S., M.A., Policy Studies in Language and Cross-Cultural Education
Davies, Aida D., M.A., Policy Studies in Language and Cross-Cultural Education
Dean, Margene, Ed.D., Educational Leadership
Debol, Martha, M.A., Special Education
Dragon, Barry S., B.S., Educational Leadership
Dyer, Christine, J.D., Educational Leadership
Eason, Daryl, Ed.D., Special Education
Epler, James W., M.Ed., Educational Technology
Erlik-Monette, Lisa J., M.A., Counseling and School Psychology
Escobedo, Francisco, M.A., Educational Leadership
Faris-Cole, Debbie, Ph.D., Special Education
Fayman, Corey, M.A., Educational Technology
Fitch, Suzanne, Ed.D., Special Education
Flood, Sharon R., Ed.D., Teacher Education
Fogelstrom, Nancy, M.A., Teacher Education
Galea'i, Kenneth E., Ph.D., Administration, Rehabilitation and Postsecondary Education Germaine, Ronald W., M.Ed., Educational Leadership
Gleason, Catherine, B.A., Educational Leadership
Gray, Susan P., M.A., Educational Leadership
Gunst, Rosemary, B.S., Teacher Education
Gwinnup, Judith A., M.A., Special Education
Hall, Robert, Ph.D., Administration, Rehabilitation and Postsecondary Education
Herman, Ernestine M., M.A., Policy Studies in Language and Cross-Cultural Education
Hicks, Tom, Ph.D., Counseling and School Psychology
Hill, Barrett, M.S., Counseling and School Psychology
Holowach, Kathleen, M.A., Special Education; Teacher Education
Hull, Holly, M.A., Educational Technology
Hyde, Marlene, M.A., Counseling and School Psychology
James, Helen F., Ed.D., Teacher Education
Jimenez, Lillian I., M.A., Policy Studies in Language and Cross-Cultural Education
Jones, Edward C., M.S., Administration, Rehabilitation and Postsecondary Education
Joyce, Ginger, M.S., Special Education
Kanevsky, Lannie S., Ph.D.,Special Education; Education, General
Kasendorf, Stacey, M.A., Special Education
Kellett, Susan, M.A., Special Education
Kelso, Brady P., M.A., Teacher Education
Kemp, Donald J., Ed.D., Educational Leadership
Kopenski, Donna, Ph.D., Teacher Education
Kornuta, Halyna, Ed.D., Educational Leadership
Lancaster, Nancy R., M.Ed., Teacher Education
Leak, Jacqueline, M.A., Counseling and School Psychology
Lindsay, Rose A., M.S., Administration, Rehabilitation and Postsecondary Education Linman, Teresa Randel, B.A., Educational Technology
Littrell, Jarleen H., M.S., Teacher Education
Llera, Manuel, M.A., Policy Studies in Language and Cross-Cultural Education;
Teacher Education
Logsdon, John W., M.A., Teacher Education
Lujan, Nancy, M.A., Teacher Education
Lungren, Linda E., D.M.E., Teacher Education
Maestré, Luis A., M.A., Policy Studies in Language and Cross-Cultural Education
Manderson, Carole J., M.A., Teacher Education

Marotta, Antonio, Ph.D., Counseling and School Psychology
Martin, Melinda M., M.A., Teacher Education
Maruca, Joseph, Ed.D., Educational Leadership
Marushige, Ken, M.A., Educational Technology
Mathieu-Enciso, Lilia, M.S., Counseling and School Psychology
McBrayer, Sandra, M.A., Teacher Education
McClure, Melinda K., M.A., Special Education
McLean, Deborah, M.A., Special Education
McMillan, Kris W., M.A., Teacher Education
Messina, Constance, M.S., Counseling and School Psychology
Middleton, Loretta, M.A., Counseling and School Psychology
Morales Hoffman, Lydia E., M.A., Policy Studies in Language and Cross-Cultural Education
Moreno, Eileen, M.A., Policy Studies in Language and Cross-Cultural Education
Myerson, Gary W., M.A., Special Education; Teacher Education
Nicodemus, Charlotte A., M.S., Administration, Rehabilitation and Postsecondary Education
Ollerman, Dennis L., M.A., Counseling and School Psychology
Oram, Christopher D., Ed.D., Educational Leadership
Pantelis, Kay, M.A., Teacher Education
Parish, Carol, Ed.D., Educational Leadership
Perlin, Robyn, M.A., Educational Leadership
Pringle, Tawnya, M.S., Counseling and School Psychology
Pyle, Robert, Ph.D., Educational Leadership
Ramirez, Celia A., Ph.D., Educational Leadership; Policy Studies in Language and CrossCultural Education
Robershaw, Phyllis L., M.A., Teacher Education
Robinson, Marilyn A., M.A., Counseling and School Psychology
Ryan, Gregory V., M.A., Educational Leadership
Sage, Maureen E., Ed.D., Teacher Education
Sandoval, Sam, B.S., Teacher Education
Sanz, Ernesto, M.A., Teacher Education
Schell, Emily, M.A., Teacher Education; Education, General
Schroeder, Frederic, Ph.D., Administration, Rehabilitation and Postsecondary Education
Shelton, Donald J., Ed.D., Educational Leadership
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
Sparaco, Lisa M., Ph.D., Policy Studies in Language and Cross-Cultural Education
Stokes, Edward, M.A., Teacher Education
Taylor, Margo, Ph.D., Policy Studies in Language and Cross-Cultural Education
Taylor, Mary M., M.Ed., Special Education
Thome, Richard D., M.S., Educational Leadership
Tinnin, Paula P., Ed.D., Special Education
Torres-Stanovik, Maida, Ed.D., Policy Studies in Language and Cross-Cultural Education
Treger, Rochelle D., Ph.D., Teacher Education
Tremaine, Claire D., Ph.D., Teacher Education
Turner, Thomas, M.S., Administration, Rehabilitation and Postsecondary Education
Vanderstap, Lupita G., M.S., Administration, Rehabilitation and Postsecondary Education
Van Dyke, Janice, Ph.D., Teacher Education
Vieira, Mary, M.A., Educational Technology
Villanueva-Smith, Irene P., Ph.D., Policy Studies in Language and Cross-Cultural Education
Warne, Jim E., M.S., Administration, Rehabilitation and Postsecondary Education
Weiss, Roberto, M.A., Counseling and School Psychology
White, James, M.A., Educational Technology
Williams, Francine F., Ph.D., Policy Studies in Language and Cross-Cultural Education
Wong-Kerberg, Linda, M.S., Counseling and School Psychology

## ENGINEERING

Agraz, José L., M.S., Electrical and Computer Engineering
Akhondzadeh, Rahim A., M.S., Civil and Environmental Engineering
Andrews, M. Scott, Ph.D., Electrical and Computer Engineering
Ayoub, Raid, M.S., Electrical and Computer Engineering
Badkoobehi, Hassan, Ph.D., Civil and Environmental Engineering
Bakhru, Keshoolal, Ph.D., Electrical and Computer Engineering
Bakirov, Vadim, Ph.D., Mechanical Engineering
Bernath, Brett A., M.S., Electrical and Computer Engineering

Beyene, Asfaw, Ph.D., Mechanical Engineering
Butler, Geoffrey S., M.S., Aerospace Engineering and Engineering Mechanics
Carr, Lawrence, B.S., Civil and Environmental Engineering
Cawley, Nancy, Ph.D., Aerospace Engineering and Engineering Mechanics
Dhingra, Kailash C., Ph.D., Electrical and Computer Engineering
Dowell, Robert, Ph.D., Civil and Environmental Engineering
Harrington, Steven, Ph.D., Aerospace Engineering and Engineering Mechanics
Hull, Joseph, B.S., Civil and Environmental Engineering
Hung, Wayne Nguyen, Ph.D., Mechanical Engineering
Johnston, Thomas H., M.A., Mechanical Engineering
Jones, Benjamin J., B.S.M.E., Mechanical Engineering
Kennedy, John, M.S., Electrical and Computer Engineering
Khwaja, Ziauddin, Ph.D., Electrical and Computer Engineering
Kinhal, Jaiteerth, M.S., Civil and Environmental Engineering
LaVere, Kenneth A., B.S., Mechanical Engineering
Lockwood, Paul, M.S.E.E., Electrical and Computer Engineering
Lovegren, Jon C., M.S., Electrical and Computer Engineering
Lowdermilk, R. Wade, M.S., Electrical and Computer Engineering
Maksymenko, Andrey, Ph.D., Mechanical Engineering
Mansour, Ihab, B.S., Electrical and Computer Engineering
McDonnell, John, B.S., Mechanical Engineering
Milgrim, Kevin D., B.S., Mechanical Engineering
Phillips, David B., Ph.D., Electrical and Computer Engineering
Scott, Stephen R., M.S.E.E., Electrical and Computer Engineering
Sultan, Labib, Ph.D., Electrical and Computer Engineering
Tedesco, Carl, B.S., Aerospace Engineering and Engineering Mechanics
Urquhart, Bruce C., B.A., Civil and Environmental Engineering
Wright, Craig A., B.S.M.E., Mechanical Engineering
Yilmaz, Serdar, M.S., Electrical and Computer Engineering
Young, Paul H., Ph.D., Electrical and Computer Engineering

## HEALTH AND HUMAN SERVICES

Achenbach, Lisa G., M.A., Speech, Language, and Hearing Sciences
Adler, Jacqueline B., M.A., Speech, Language, and Hearing Sciences
Anguera, Joaquin, Ph.D., Health and Human Services, General
Arnett, Dixon, B.A., Health and Human Services, General
Ayala, Carmen, M.S.W., Social Work
Bass, Susan, M.S.N., Nursing
Becker, Irene P., M.S.W., Social Work
Bidwell, Janice D., M.N., Nursing
Blackford, Judy K., M.S.N., Nursing
Boothroyd, Arthur, Ph.D., Speech, Language, and Hearing Sciences
Bormann, Jill, Ph.D., Nursing
Borntrager, Denise E., B.S., Public Health
Bradley, Beverly J., Ph.D., Nursing
Branch, Carol A., M.A., Speech, Language, and Hearing Sciences
Branciforte, Lisa, M.S.N., Nursing
Bray, Robert L., Ph.D., Social Work
Brown, Mary, M.S.N., Nursing
Bruner, Joan S., M.S.W., Social Work
Burns, Della, M.N., Nursing
Calvert, Ken, B.S., Public Health
Carlson, Beverly M., M.S.N., Nursing
Catterall, Kathleen A., M.A., Speech, Language, and Hearing Sciences
Chase, Renata S., M.S.W., Social Work
Clark, Gail E., Ph.D., Nursing
Clark, Lisa G., Ph.D., Public Health; Health and Human Services, General
Conway, Terry L., Ph.D., Public Health
Daly, Donna M., M.S.W., Social Work
Dublin, Penny, M.S.Ed., M.S.W., Social Work
Durham, Steven W., M.P.H., Public Health
Eisenberg, Michelle, M.P.H., Public Health
Esernia, Joyce S., M.S.N., Nursing
Evans, Hope C., M.S.W., Social Work
Faron, Susan, M.S., Nursing
Fischer, Marlowe K., M.A., Speech, Language, and Hearing Sciences
Fleiner, Michelle M., M.S.N., Nursing
Fleming, Regina, M.D., Public Health
Fong, Terri A., M.S.W., Social Work
Fortney, Olin R., B.A., Speech, Language, and Hearing Sciences

Glatte, Linda J., M.D., Public Health
Gold, Edith D., M.A., Nursing
Golden, Lauren J., M.S.W., Social Work
Gresham, Louise S., Ph.D., Public Health
Herold, Geri R., M.S.N., Nursing
Hopwood, Daniel G., M.P.H., Public Health
Hughes, Suzanne C., Ph.D., Public Health
Hunter, Lauren, M.S., Nursing
Johnson, Susan, M.S., Nursing
Katzman, Jodi S., M.S.N., Nursing
Kohlbry, Pamela, M.S.N., Nursing
Kraus, David V., J.D., Public Health
Kreisworth, Virginia S., Ph.D., Public Health
Lamke, Celia A., M.S.N., Nursing
Launer, Patricia B., Ph.D., Speech, Language, and Hearing Sciences
Ledwith, James W., M.B.A., Public Health
Lindsay, Suzanne P., Ph.D., Public Health
London, Michele L., M.S.W., Social Work
Luthin, Patricia L., M.S.N., Nursing
Macchione, Nicola N., M.P.H., Public Health
Marsden, Martha A., Ph.D., Social Work
Martin, Ann, M.S.N., Nursing
McCoy, Toni, M.S.N., Nursing
Migala, Henri F., M.P.H., Public Health
Miller, Mary Ellin, M.S.N., Nursing
Milstein, Marjorie F., M.S.W., Social Work
Morales, Mark A., M.S.W., Social Work
Mulvihill, Mary M., Ph.D., Public Health
Ngo-Nguyen, Phuong-Lien, M.S.N., Nursing
O'Connor, MaryAnn, M.N., Nursing
Osuyos, Roberta A., M.S.W., Social Work
Ottem, Regina M., M.S.N., Nursing
Pappelbaum, Stanley J., M.D., Public Health
Pierce, Edward C., M.S.W., Social Work
Pratt, Nancy, M.S.N., Nursing
Preston, Patricia T., M.S.N., Nursing
Ramage, Amy E., Ph.D., Speech, Language, and Hearing Sciences
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Rodriguez-Lainz, Alfonso, Ph.D., Public Health
Roth-Abramson, Carole R., Ph.D., Speech, Language, and Hearing Sciences
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Rowe, Linda J., Ph.D., Speech, Language, and Hearing Sciences
Ruhter, Rita J., M.P.H., Public Health
Samad, Ruth, Ph.D., Nursing
Santarsiero, Catherine H., M.S.N., Nursing
Schreiber, Judith L., M.S.W., Social Work
Schumacher, Janis L., M.A., Speech, Language, and Hearing Sciences
Segars, Lance B., Ph.D., Social Work
Skora, Joyce, M.S.N., Nursing
Smith, Julia, M.S.N., Nursing
Stewart, Caroline R., M.S.W., Social Work
Stillman, Dennis M., M.H.S.A., Public Health
Struxness, Kevin R., M.A., Speech, Language, and Hearing Sciences
Sullivan, Toni, Ed.D., Nursing
Tanner, Paula M., B.S., Public Health
Tarver, Johnie Mae, Ph.D., Nursing
Thompson, Denise, M.S.N., Nursing
Trocha, Paul J., Ph.D., Public Health
Weeks, Susan, M.S., Nursing
Wester, Derin C., Ph.D., Speech, Language, and Hearing Sciences
Wolff, Sharron T., M.A., Speech, Language, and Hearing Sciences
Yamada, Ann Marie, Ph.D., Health and Human Services, General
Yancey, Sherryl, M.S.N., Nursing
Zians, James K., M.A., Public Health

## PROFESSIONAL STUDIES AND FINE ARTS

Albert, Cliff E., B.S., Communication
Aliaga, Manuel C., M.P.A., Public Administration
Allard, Tony, M.F.A., Art, Design and Art History
Apostolos, Robert J., M.S., Public Administration

Arauz, Carlos G., M.S., Public Administration
Armstead, Rulette V., M.S., Public Administration
Askar, Imad N., A.A., Exercise and Nutritional Sciences
Atule, Akayaa, B.A., Music
Atwater, Judy L., B.A., Art, Design and Art History Barba, Douglas A., Ph.D., Exercise and Nutritional Sciences Barker, Valerie E., Ph.D., Communication
Barnard, Laura H., J.D., Theatre, Television, and Film 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
Benford, DeJuan, M.S., Recreation, Parks and Tourism Betts, Jeffrey S., B.A., B.A.C., Theatre, Television, and Film Bevins, Larry C., B.F.A., Art, Design and Art History Blair, Jr., Thomas H., B.S., Communication Bornemisza, Magdolna F., M.A., Music Boudreau, Karen L., J.D., Communication Bouton, Steven R., B.A., Public Administration Bowman, Blaine K., J.D., Public Administration Breister, Jennie, B.A., Recreation, Parks and Tourism Broder, Heidi D., M.S., Exercise and Nutritional Sciences Brown, Maribeth L., M.A., Communication Bruenjes, Horst D., 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 Capritta-Payne, Patricia, B.A., Recreation, Parks and Tourism Carlson, Craig J., M.A., Art, Design and Art History Chin, Shirley Y., M.P.A., Public Administration Cleary, John J., J.D., Public Administration Co, Raymond F., Ph.D., Communication Corr, Michael J., B.A., Recreation, Parks and Tourism Craig, Birgit B., M.A., Theatre, Television, and Film Cuzick, David H., B.A., Art, Design and Art History Daniels, Dwight C., M.A., Communication Decker, John M., M.A., Communication DeFerrari, Chad C., M.A., Theatre, Television, and Film Deltoro, Gilbert, M.A., Communication Deltoro, Melinda M., M.A., Communication De Salvo, Roman M., M.F.A., Art, Design and Art History Downing, John E., M.A., Exercise and Nutritional Sciences Dunn, Jeanne, M.A., Art, Design and Art History Dunnick, Marian M., M.S., Child and Family Development Durso, Christopher M., M.A., Theatre, Television, and Film Ekard, Walter, F., J.D., Public Administration Epstein, Mel J., B.A., Communication Erb, Jr., John A., B.A., Music
Evans-O'Connor, Kellie E., M.A., Music
Evert, Sharla L., J.D., Public Administration
Feldman, David A., M.S., Communication
Fierro, Gilbert, B.A., Public Administration
Fisher, Donna C., M.A., Theatre, Television, and Film Flood, John C., M.A., Music
Fobes, David A., M.F.A., Art, Design and Art History Francis, Lloyd G., M.S., Exercise and Nutritional Sciences Francis, Lorna, Ph.D., Exercise and Nutritional Sciences Funicello, Ralph, B.F.A., 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 Genna, Raimondo, M.A., Theatre, Television, and Film Gillette, Glenn A., B.F.A., Music
Gillis, Ronald, M.M., Music
Gittings, Richard W., M.P.A., Public Administration Goetz, Sara E., M.A., Communication Goodell, Shawn R., M.F.A., Art, Design and Art History Gorski, Ann B., M.S., Exercise and Nutritional Sciences Gottshall, Kim R., Ph.D., Exercise and Nutritional Sciences

Green, Erick Y., M.F.A., Theatre, Television, and Film
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Schultz, Janice D., M.S., Exercise and Nutritional Sciences
Serrano, Jill F., M.P.A., Public Administration
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Shute, Christina L., M.A., Communication
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Smith, Gregory J., M.P.A., Public Administration
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Svoboda, George, M.M., Music
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Welsh, Anne Marie, Ph.D., Dance
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Williams, Dru A., M.A., Communication
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Woods, Ann C., Ph.D., Art, Design and Art History
Wulfemeyer, Lori L., J.D., Communication
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## SCIENCES

Ashlyn, Jahna, Ph.D., Psychology
Aylward, Kathleen, Ph.D., Biology
Bajic, Ivan F., M.S., Computer Science
Baker, Elizabeth D., M.S., Geological Sciences
Bologna, Baldassare, M.A., Mathematics
Boyd, Barbara A., M.A., Mathematics Bradlow, Steven B., Ph.D., Mathematics Branca, Melanie, Ph.D., Mathematics Brock, Paul W., Ph.D., Mathematics Burrus, Patrick, M.S., Mathematics Burstein, Mikhail, Ph.D., Computer Science Callahan, Wendell J., Ph.D., Psychology Camp, Victor E., Ph.D., Geological Sciences Cavanaugh, Kevin, M.A., Mathematics
Cerbone, Ralph J., Ph.D., Physics
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Dainer, Joan, M.S., Biology
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Gibbins, Maureen, M.A., Biology
Gill, Marcia, B.A., Mathematics
Gill, Perri L., M.A., Mathematics
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Goldin, Eric M., Ph.D., Biology; Physics
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Hanscom, Patricia R., M.S., Biology
Hastings, Steven J., M.A., Biology
Hollingsworth, Brad, Ph.D., Biology
Jepsen, Chris P., M.A., Mathematics
Kaiser, Timothy, Ph.D., Computer Science
Kenney, Miles, Ph.D., Geological Sciences
Kitzmiller, Jill M., M.A., Mathematics
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Knowles, Aileen F., Ph.D., Chemistry
Kobus, David A., Ph.D., Psychology
Konoske, Paula J., Ph.D., Psychology
Krown, Kevin A., Ph.D., Biology
Kulkarni, Himgauri, Ph.D., Biology
Landau, Samuel B., Ph.D., Psychology
Lane, Jo Ann, M.S., Computer Science
Larter, Martin L., M.S., Chemistry
Laumakis, Mark, Ph.D., Psychology
Leonard, Guy E., M.S., Computer Science
Li, Michael, M.S., Computer Science
Lin, Frank K., M.S., Computer Science
Loza, Oralia, M.A., Mathematics
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Mardahl-Dumesnil, Michelle, Ph.D., Biology
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McDonald, Barbara A., Ph.D., Psychology
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Nash, Ron, B.S., Computer Science
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Neuburger, Monica, Ph.D., Chemistry
Noble, Helen A., M.S., Statistics
Peterson, Karen I., Ph.D., Chemistry
Ramaswamy, Bala, Ph.D., Mathematics
Rieker, Joseph W., M.A.T., Mathematics
Riggins, Lloyd A., B.A., Computer Science
Robinson, Kevin L., M.S., Geological Sciences
Rotar, Vladimir, Ph.D., Mathematics and Statistics
Sabbadini, Gail A., M.A., Biology
SacramentoGrilo, Isabelle, M.S., Geological Sciences
Saikali, Jeffrey, M.S., Mathematics
Saponjic, Shawna, Ph.D., Psychology
Shenk, Norman A., Ph.D., Mathematics
Shubeita, Huda, Ph.D., Biology
Sparta, Steven N., Ph.D., Psychology
Stemler, Stewart, B.S., Computer Science
Sundblad, Kristina, M.S., Mathematics
Tackett, Patricia A., Ph.D., Psychology
Tatum, B. Charles, Ph.D., Psychology
Truesdale, H. David, Ph.D., Biology
Waite, Jerene, Ph.D., Psychology
Weidner, Jeanne, Ph.D., Biology
Wilson, John, M.A., Mathematics
Wingerd, Mala, M.S., Biology
Zand, Farshid V., Ph.D., Chemistry
Ziegenhorn, Leslie, Ph.D., Psychology

## ATHLETICS

Anderson, W. Nicole, M.Ed.
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Bale, Courtney, B.S., B.A.
Bleil, Fred, M.S.
Brown, Felicia A., B.S., B.A.
Buh, Andy, B.S.
Clegg, Charles P., B.A.
Correia, Eric A.
Craft, Tom, M.A.
Crawford, Carin D., M.A.
Delp, Kenny
Dutcher, Brian J., M.S.
Filter, Russell D., B.A.
Fisher, Mark S., B.A.
Fisher, Stephen L., M.S.
Gaskins, Walter, M.S.
Gottlieb, Gregg A., M.B.A.
Gross, Jennifer, B.A.
Gulati, Susheel, M.A.
Gwynn, Tony
Haines, Mark E., M.A.
Hall, Matthew I., B.A.
Hart, Matt, M.A.
Hepburn, David C., B.S.
House, James L., B.S.
Howard, Kelly, B.A.
Hutt, Gregory S.
Irvin, Matthew Justin, M.Ed.
Johnson, Gary B., M.S.
Kaumeyer, Thom, M.A.
Kirshner, Lev Y., B.A.
Martel, Jay, M.S.
Mattera, Peter A., M.A.
McDaniel, LeCharls B., B.S.
Menzies, Marvin E., M.Ed.
Mickelson, Tim, B.S.
Morrison, Angela, B.P.E.
Nanista, Jennifer A., M.S.
Nelson, John, M.A.
Ohton, David P., B.S.
Peters, Carolyn R., M.A.
Powroznik, David, B.A.
Robison, Jennifer L.
Ross, John J., B.A.
Schmidt, Deena D.
Sheffield, Rhan D., B.A.
Shirk, John, B.S.
Stark, Brian R., B.A.
Steckel, Scott F., B.A.
Sweet, Michael D., B.S.
Tomey, Jim G., M.A.
Truex, Colin, B.A.
Van Wyk, Katherine N., M.A.
Verbanic, II, Joe R., M.A.
Walker, Dale W., B.A.
Warner, Mark A., B.A.
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Zebroski, Jennifer, B.S.

## IMPERIAL VALLEY CAMPUS

Basich, Kora, M.Ed.
Belcher, Herlinda, B.A.
Bernal, José A., M.A.
Blumberg, Louis M., Ph.D.
Briggs, John H., M.S.
Burns, Robertta J., M.P.A.
Byrd, Krista L., M.A.
Carrillo, Marco A., Ph.D.
Castillo, Michael E., M.S.
Cavanagh, W. Forbes, Ph.D.
Colunga, Christine, M.A.
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Cook, Patricia Ann, M.A.
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David, Samuel, Ph.D.
Dipp, Mario A., M.B.A.
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Escobar, Blanca M., M.A.
Escobar, Jesus, M.B.A.
Finnell, Jonathan T., M.A.
Fitch, Suzanne, Ed.D.
Garcia, Silvia H., M.S.W.
Gonzalez Reyes, Pablo Jesus, M.A.
Groesbeck, David P., M.Ed.
Guajardo, Ana Gabriela, M.Ed.
Hinshaw, Carl A., M.A.
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Jacklich, Joel, M.F.A.
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Kellogg, Howard, M.S.
King, Marsha A., M.Ed.
Kofford, Bret M., M.A.
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Noriega, Sergio, M.A.
Palese, Kate H., M.A.
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Perez, Jesus, M.A.
Ponce de Leon, Leyda, Ph.D.
Rapp, Frank A., M.A.
Rickard, James J., Ph.D.
Rodriguez, Dalia B., M.A.
Rousseau, William R., M.A.
Santos, Arturo, M.A.
Sarot, Glenn F., Ed.D.
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Singh, Joanna B., M.A.
Taylor, Mary M., M.Ed.
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Williams, Kjersti, M.A.

## Adjunct Faculty

## ARTS AND LETTERS

Baksh, Michael G., Ph.D., Anthropology Beznosov, Mikhail, M.A., M.S., Arts and Letters, General Cayleff, Susan E., Ph.D., American Indian Studies Colston, Stephen A., Ph.D., American Indian Studies Cooper, Gwendale, Ph.D., American Indian Studies Cottrell, Barbara J., M.A., Sociology
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Diamant, Kathi, B.A., Arts and Letters, General
Feldman, David, Ph.D., Arts and Letters, General
Fielden, Carl, M.A., Rhetoric and Writing Studies
Gadalla, Mahmoud Saad, Ph.D., Geography
Ghougassian, J. A., Ph.D., J.D., Political Science
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## EDUCATION

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McDonald, Nan L., M.A., Teacher Education
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Venegas, Olga, M.A., Policy Studies in Language and Cross-Cultural Education Vidal, Jane A., M.S., Counseling and School Psychology

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## Index

Academic advising, 10
Academic calendar, 4
Academic Computing, 418
Academic credit - (see Credit)
Academic excellence, ii
Academic goals, viii
Academic organization, 6
Academic probation, disqualification, and reinstatement, 438
Academic renewal, 436
Accidents, 16
Accountancy, 93
Accounting - (see Accountancy, 93)
Accreditation, 442
ACT-(see American College Test, 62)
Activity fee, student, 69
procedure for establishment of, 72
Actuarial science emphasis, 395
Add/drop 61, 62 (see schedule adjustment, 436)

Addenda, 449
Administration and organization, 6
Administration, rehabilitation and postsecondary education, 97
Administrative academic probation and disqualification, 438
Administrative services credential, 197
Admission
application for, 62
application acknowledgment
and supplemental criteria, 62
dual with community college, 63
eligibility, 63
fall requirements, 62
filing of records, 65
filing periods, 62
impacted programs, 66
of adult students, 64
of foreign students, 64
of freshmen, 62
of graduate students, 65
of high school students, 63
of intrasystem and intersystem, 66
of postbaccalaureate students, 65
of undergraduate transfers, 63
procedures and policies, 62
provisional, 64
requirements, undergraduate, 62
tests for, 62
to summer programs, 59
Advanced Placement Examinations, credit for, 433
Advertising emphasis, 167
minor, 169
Advising, 10
Aerospace engineering, 99

Aerospace studies, 103
minor, 103
Africa and the Middle East, 374
Africana studies, 105
Cultural Literacy and Research, Africana Center for, 26
African studies minor, 268
Afro-American studies minor, 105
AFROTC, 103
Aging, University Center on, 37
Agribusiness Entrepreneurship Institute, 48
Alcohol and substance abuse, 440
Allied health professions, 57
Alumni Association, 418
American Chemical Society certificate, 144
American College Test, 62
American history requirement for graduation, 76
American Indian studies, 108
American institutions, 76, 82
American Language Institute, 59, 65
American literature - (see English, 206)
American Sign Language - 77, (see
Speech, Language, and Hearing
Sciences, 390)
American studies, 110
Annual calendar, 3
Anthropology, 112
Applied design emphasis, 118
Applied mathematics, 302
Arabic, 116
Army ROTC, 312
Art, 117
Art history emphasis, 117, 120
Arts and Letters, College of, 26
Asian studies, 126
Associated Students, 418
Astronomy, 129
Athlete, satisfactory academic progress requirement, 439
Athletic training, emphasis 219
Athletics, v, 419
Attractions, events, and convention management emphasis, 87, 259
Auditing courses, 430
fees, 69
Aztec Center, 418
Aztec Shops, Ltd., 419
Bachelor of Arts degree, 77, 78
Bachelor of Music degree, 77, 78, 314
Bachelor of Science degree, 78
Bachelor of Vocational Education degree, 97
Bachelor's degree graduation requirements for, 74 second, 66
Behavioral and Community Health Studies, Center for, 37, 43
Behavioral Epidemiology and Community Health, Center for, 37
Behavioral Teratology, Center for, 43
Bilingual credential, 341, 343

Biochemistry emphasis, 144
Bioengineering emphasis, 132
Biological sciences - (see Biology, 131)
Biology, 131
Biopharmaceutical and Biodevice Development, Center for, 420
Board of Trustees, 447
Bookstore, 419
Border and Regional Economics Studies, California Center for, 48
Botany - (see Biology, 131)
Bread and Roses Center, 26
British literature - (see English, 206)
Broadcasting - (see Communication, 166)
Built Environment and Comparative Urban Research Institute, 40
Burnett Institute for Children, Youth, and Families, 421
Business Administration, College of, 30 certificate (IVC), 142 minor, 142
Calendar academic, 4 annual, 3
California articulation number (CAN), 432
California Center for Border and Regional Economic Studies, 48
California Desert Farming Institute, 48
California government requirement for graduation, 76
California Institute of Transportation Safety, 35
California State University program for education and research in biotechnology, 420
California State University, 446 campus locations, 448
CaMexUS, 271
Campus tours, 14
Canceling student registration, 70, 71, 437
Career placement, 442
Career services, 14
Catalogs and bulletins, 13 student responsibility for catalog information, 428
Cellular and molecular biology emphasis, 132
Certificate programs, 60 advanced certificate postbaccalaureate, 58 basic certificate, 58 continuing education certificates, 60 nondegree, 88
Certificates, 444 accounting, 94 applied gerontology, 248 applied linguistics and English as a second language (ESL), 293
bilingual (Spanish) special education, 388
bilingual speech-language pathology, 390
biotechnology, 135
business administration (IVC), 142
children's literature, 208, 402
community college teaching, 97
court interpreting (IVC), 384
cross-cultural language and academic development (CLAD), 345
developing gifted potential, 388
distance education, 198
early childhood special education, 388
environmental studies, 268
family life education, 154
geographic information science, 183, 236
instructional software design, 198
instructional technology, 198
introductory mathematics, 304
mathematics specialist, 307
Mexico B/CLAD, 344
personal financial planning, 227
preventive medicine residency, 37
programs available, 58, 60, 88, 444
public administration (IVC), 359
rehabilitation administration, 97
rehabilitation technology, 200
resource specialist of competence, 388
single subject mathematics, 304
Spanish court interpreting (IVC), 384
supported employment and transition specialist, 97
teaching the emotionally disturbed, 388
technical and scientific writing, 368 translation studies, 384
United States-Mexico border studies, 151
workforce education and lifelong learning, 97, 198
Chairs of departments, 6
Chancellor's office, 447
Change of major, 436
Change of program (see schedule adjustment, 436)
Changes in rules and policies, 428
Chemical physics, 144, 337
Chemistry, 144
Chicana and Chicano studies, 150
Child and family development, 153
Child development, 153
Childhood Injury Prevention, Center for, 38
Childrens Centers, Campus, 419, 421
Children's drama emphasis, 405
Children's Literature, National Center for, 28
China Institute, 27
Chinese, 156
City planning, 359
Civil engineering, 158
Classics, 163
Classical humanities, 163
Classical language, 163
Classification of students, 435
Classified graduate students, 55, 66
Clinical psychology, 353
Clubs and organizations, 19

Coastal and Marine, Institute, 44
College aptitude test, 62
College level examinations, 433
College of Extended Studies, 59 continuing education, 59
College Readiness Programs, 52
Colleges, deans of, 6
Colleges, schools, departments, programs, 6
Commencement, 85
Common courses, 92
Communication, 166 emphases in, 166
Communication and critical thinking graduation requirement, 80
Communications, International Center for, 41
Communications Systems and Signal Processing Institute, 35
Communicative disorders - (see Speech, language, and hearing sciences, 390)
Community-Based Service Learning, Center for, 420
Community college transfer credit, 76, 80, 432
Community Economic Development, Center for, 30
Community health education, 174
Comparative literature, 176
Competency
requirements for graduation, 74 tests, 74
Computational science emphasis, 303
Computational Science Research Center, 44
Computer engineering, 179
Computer science, 182
Computer Simulation, Center for, 44
Computing, academic, 418
Concrete Research Institute, 36
Concurrent master's degree credit, 432
Concurrent postbaccalaureate credit, 432
Consensus Organizing Center, 38
Continuing education, 59
Open University, 59
American Language Institute, 59
certificate programs, 60
extension, 60 courses in, 60
functions, 59
professional development, 60 corporate partnerships, 60 custom on-site training, 60 seminars and workshops, 60
retired adults education program, 60
special sessions, 59
summer programs, 59, 60
travel study programs, 60
Corporate Governance Institute, 30
Cost of living, 20
Counseling
academic, 10
career, 14
disabled, 15
Educational Opportunity Programs/Ethnic Affairs (EOP), 15
health, 15
housing, 16
international students, 17
placement, job, 14, 442
Counseling \& Psychological Services, 14
Counseling and school psychology, 186
Center for, 34
Course forgiveness, 431
Courses and curricula, 92
Courses, numbering of, 92, 431
Cox Arena, 418
Creative writing, 206
Credentials offered, 33, 88
codes, 89
fee, 70
Credit
concurrent master's degree, 432
concurrent postgraduate credit, 432
for college level examination, 433
for community college courses, 76 , 80, 432
for extension courses, 432
for instruction in noncollegiate settings, 433
for international baccalaureate
certificates or diplomas, 433
for military service, 435
for performance studies, 316
for upper division courses, 432
through coursework, 432
through examination, 433
Credit/no credit, 92, 430
Criminal justice administration, 187
Curricula
AFROTC, 103
Army ROTC, 312
in graduate programs, 54, 444
interdisciplinary, 267
Navy ROTC, 324
preprofessional, 56, 444
summary of, 86
types of, 444
Damaged equipment fee, 70
Dance, 189
Deans, 6
Dean's list, 438
Debts to institution, 72
Degree application (bachelor's), 85
Degree, second, 66
Degrees available, 444
Departments, colleges, schools chairs, directors, and coordinators, 6 programs, 6
Design for television and film emphasis, 405
Design and technology for the theatre emphasis, 405
Developmental writing program, 421
Disabled students, 15

Discipline, 439
Disqualification, 438
Distinction in major, 438
Documentary and Drama Production Center, 41
Dormitories, 17
Drama - (see Theatre, 404)
Druze Studies, Institute of, 27
Dual admission with community college, 63
Ecology, 54, 133
Economics, 192
Education Center on Computational Science and Engineering, 44
Education, College of, 33
curricula, $33,86,186,196,198,341$, 388, 398
Educational Opportunity Programs/Ethnic Affairs (EOP), 15
Student outreach, 425
Educational leadership, 197
Educational technology, 198
Educational Leadership, Innovation, and Policy, Center for, 34
Edwin C. Allison Historical Science, Center for, 43
Eidemiller Weather Station, 27
Electrical engineering, 200
Elementary education - (see Teacher education, 398)
Eligibility Index, 63
Emergencies, 15, 439
Emerging Leader Program, 52
Emeritus faculty, 468
Emphases and Concentrations, 87
Energy Engineering Institute, 36
Energy Studies
Center for, 44
minor, 268
Engineering, 205
Engineering, College of, 35
Engineering geology, 240
Engineering mechanics, 99, 102
English, 206
English and comparative literature, 176, 206
English Placement Test (EPT), 67
English test for foreign students, 65
Enrollment verifications, 435
Enrollment, visiting students, 66
Entrepreneurial Management Center (EMC), 31
Entry-Level Mathematics Test (ELM), 67
Environment emphasis, 374
Environment and society, minor in, 268
Environmental analysis, 236
Environmental engineering, 212
Environmental policy, 236
Environmental sciences, 215
Environmental studies certificate, 268
Ethics and Public Affairs, Institute for, 27
Ethnic students' services, 15, 17
European humanities emphasis, 267

European studies, 216
Center for, 27
Evaluation, 437
Evolution and systematics emphasis, 133
Examination - (see also tests)
credit by, 433
final, 432
Excess study load, 437
Exchange programs/study abroad, 47
Exercise and nutritional sciences, 218
Experimental topics courses, 92
Explorations graduation requirement, 82
Extension, 60
courses, 60
credit for, 60 fees, 71
Facilities
Imperial Valley Campus, 47 SDSU, vii
Facility for Applied Manufacturing Enterprise (FAME), 36
Faculty, adjunct, 482
Faculty directory, 450
Faculty international exchanges, 423
Faculty office hours, 442
Faculty, part-time, 475
Family studies and consumer sciences (see Child and family development, 153)
Fees, 69
over 60, 72
waivers, 72
Field Station Programs, 45
Filing for admission, 62, 66
Final examinations, 432
Finance, 225
Financial aid, 20, 442
Financial services major, 226
Fitness, nutrition and health emphasis, 219
Foods and nutrition, 330
Foreign language
requirement for graduation, 63, 77
Foreign students, 17, 64
Foundation, San Diego State University, 424
Foundations graduation requirement, 80
Fraternity and sorority life, 15
French, 229
French and Italian languages and literatures, 229, 278
Full-time student status, 435
Funds, cost and sources of, 446
General education requirements for graduation, 78
General information, 442
General mathematics studies, 232, 422
General studies, 234
general courses, 234
interdisciplinary courses, 234
Geochemistry emphasis, 241
Geography, 235
Geological sciences, 240
Geology, 240

Geophysics emphasis, 241
German, 245
German and Russian languages and literatures, 245, 371
Gerontology, 248
Global tourism management emphasis, 87, 259
Grade point average (GPA), 78, 430
Grade points, 429
Grades, 429 assignment of and appeals, 431 credit/no credit, 430 plus/minus grading, 429 repeated course, policy on, 431 required for graduation, policy on, 78
Graduate division
admission categories, 55 admission to graduate study, 54 association membership, 54 bulletin, 55 degrees offered, 54 GRE General test, 55 organization and administration, 54
Graduation
application for, 85
commencement exercises, 85
competency tests for, 74, 75
election of regulations for, 85
fee, 70
requirements for, 74
with distinction in major, 438
with honors, 438
Graphic design emphasis, 118
Greek, 163
Grievance, student, 18, 439, 440
Handicapped students, 15
Health and Human Services College of, 37 courses, 251 International Institute for Development, 38
Health care for students (Student health services), 15
Health insurance, 69
Health science, 174
Heart Institute, 38, 45
Hebrew, 252
Higher education programs, 97
High school students, admission of, 63
History, 253
History of science and technology minor, 323
Holidays, 4
Honors at graduation, 438
program, 52
Honors council, 422
Honor societies, 422
Hospitalization insurance, 16
Hospitality and Tourism Management, 259 Center for, 31, 40
Hotel operations and management emphasis, 87, 259

Housing administration, 16
Humanities, 262
Hydrogeology emphasis, 241
Immigration licensure requirements, 429
Impacted programs, 66
Imperial Valley Campus
administration, 47
admission and registration, 48
advising, 13
commencement, 49
curricula offered, 47
exchange programs and study
abroad, 47
facilities, 48
faculty, 47
general information, 47
scholarships, 48
Incomplete grade, 430
Information and decision systems, 264
Injury, 16
Injury Prevention Policy and Practice, Center for, 38
Inland Waters, Center for, 45
Institutional and financial assistance, 442
Instructional technology certificate, 198
Instructional Technology Services, 423
Instructor Initiated Drop Policy, 61, 62
Insurance for students, 16, 65, 69, 392
Integrated Curriculum, 53
Interdepartmental major, elementary, 402
Interdisciplinary programs, 267
Africa and the Middle East, 374
African studies, 268
American studies, 110
Asian studies, 126
Child development, 153
Energy studies, 268
Environment, 374
Environment and society, 268
Environmental studies, 268
Gerontology, 248
Humanities, 262
Interdisciplinary studies in three departments, 267
Islamic and Arabic studies, 116
Jewish studies, 282
Latin American studies, 285
Russian and Central European studies, 216
Social science, 373
Urban studies, 267
Interdisciplinary studies, 54, 267
Interior design emphasis, 118
International baccalaureate certificates or diplomas, credit for, 384, 435
International business, 270
CaMexUS, 271
MEXUS, 271
PanAmerica, 271
SanBrazil, 271
SanDiQué, 271
TransAmerica, 272
TransAtlantic, 271

Project North America, 272
International Business Education and Research (CIBER), Center for, 27, 31
International economics emphasis, 193
International Education, Center for Study of, 34
International Environmental Studies, Center for, 48
International Media and Communication Education, Center for, 41
International Population Center, 27
International programs, CSU, 17
International Programs, Office, 423
faculty exchanges, 423
student exchanges, 270, 423
International Security and Conflict Resolution, 275
Institute for, 27, 41, 45
International Student Center, 17
International Technology and Trade Network Institute, 28, 31
Interwork Institute, 34
Islamic and Arabic Studies, Center for, 28 minor, 116
Italian, 278
Japanese, 280
Jewish studies, 282
Journalism - (see Communication, 166, 168)
Kinesiology - (see Exercise and nutritional sciences, 218)
Late registration fee, 71
Latin, 164
Latin American studies, 285
Center for, 28
Law enforcement education grants, 72
Leadership training programs, 18
Learning, Instruction, and Performance
Technologies, Center for, 34
Leaves of absence, 437
Leisure Behavior, Institute for, 41
Liability, 16, 70, 392
Liberal studies, 287
Library and Information Access, 424
Limits, study list, 437
Linguistics, 292 certificate, 293
Linguistics and oriental languages, 156, 252, 280, 292
Lipinsky Institute for Judaic Studies, 28
Literature, 176
Living costs, 20
Living/Learning Center, 53
Loans, 20
London semester academic program, 425
Lost library book fee, 70
Love Library, 424
Lower division course numbering, 92, 431
students, 92
transfers, 63
Madrid semester academic program, 425

Major, 75
change of, 436
codes, 89
double, 76
time limitation on completion of, 76
Management, 296
Marine biology emphasis, 133
Marine geology emphasis, 241
Marketing, 299
Master's degree
admission to program, 54
degrees offered, 54
Materials Research, Center for, 36
Mathematics, 302
competency requirement, 74
departmental placement examination, 74, 304
entry-level examination, 68,74
Mathematics and Science Education, Center for Research in, 45
Matriculation
in the graduate division, 54
in the university, 62
Measles, rubella, hepatitis B, meningococcal immunizations, 15
Mechanical engineering, 308
Media management minor, 169
Medical insurance for students, 16
Medical technology and public health microbiology, 134
Mentoring program, faculty/student, 53
Methods of geographical analysis emphasis, 235
Mexican American studies - (see Chicana and Chicano studies, 150)
MEXUS, 271, 413
Microbial Sciences, Center for, 46
Microbiology, 131, 134
Microchemical Core Facility, 46
Military science, 312 minor, 312
Military service, 103, 312, 324, 435
Minor for a bachelor's degree, 76, 88
Mission of the university, viii
Modern Jewish studies, 282
Molecular Biology Institute, 46
Multicultural education, 341
Multiple subject teaching credential, 398, 400
Music, 314
Native American studies - (see American Indian studies, 108)
Natural resource and environmental geography emphasis, 236
Natural science, 322
Naval science, 324
minor, 324
NROTC, 324
Navy Officer Programs and
Scholarships, 324, 424
NExTWORK, 46

Nondegree curricula, 56
accounting certificate, 94
applied gerontology certificate, 248
applied linguistics and English as a second language (ESL) certificate, 293
bilingual cross-cultural language and academic (BCLAD) certificate, 345
bilingual (Spanish) special education certificate, 388
biotechnology certificate, 135
business administration certificate (IVC), 142
children's literature certificate, 208, 402
court interpreting certificate (IVC), 384
cross-cultural language and academic development (CLAD) certificate, 345
early childhood special education, 388
environmental studies certificate, 268
family life education certificate, 154
geographic information systems certificate, 183, 236
instructional technology certificate, 198
introductory mathematics certificate, 304
mathematics specialist, 307
personal financial planning certificate, 227
preprofessional programs, 56
preventive medicine residency certificate, 37
public administration certificate (IVC), 359
rehabilitation administration certificate, 97
rehabilitation technology certificate, 200
resource specialist of competence, 388
single subject mathematics certificate, 304
Spanish court interpreting certificate (IVC), 384
Spanish translation studies certificate, 384
supported employment and transition specialist certificate, 97
teaching the emotionally disturbed certificate, 388
technical and scientific writing certificate, 368
translation studies certificate, 384
United States-Mexico border studies certificate, 151
workforce education and lifelong learning certificate, 97, 198
Nondiscrimination policy, 2, 428
Nonresident tuition, 69
determination of residence, 68
Nursing, 325
Nursing Research, Institute for, 39
Nutrition, 330
Oceanography, 333
minor in, 333
Off-campus housing, 17
Office of the Chancellor, 447

Officers of administration, 6
Ombudsmen, 18
Open Air Theatre, 419
Open University, 59
Organization and administration, 6
Oriental languages - (see Arabic, Chinese, Hebrew, Japanese)
Orientation programs, 18
Outdoor recreation emphasis, 361
Painting and printmaking emphasis, 119
Paleontology emphasis, 241
PanAmerica, 271
Parents programs, 19
Paris semester academic program, 425
Parking, 69, 424
disabled, 15
Part-time jobs, 14
Performance emphasis, 405
Philosophy, 334
Physical education (see Exercise and nutritional sciences, 218)
Physical geography emphasis, 236
Physical science - (see Natural science, 322)
teaching major, 322
Physics, 337
Placement Center-(see Career services, 14)
Placement tests, 67
Plagiarism, 440
Policy studies in language and crosscultural education, 341
Political science, 346
Portuguese, 351
Postbaccalaureate admission requirements, 66 advanced certificate, 58 application procedures, 65 standing (classified), 55
Postgraduate credit, concurrent, 432
Predental, 56
Prelegal, 56
Pre-professional studies, 193
Premedical, 56
Preparation for the major, 75
Preprofessional health advising office, 56
Preprofessional studies emphasis, 193
Preprofessional programs, 56
Prerequisites for courses, 92, 436
Preveterinary, 57
Printmaking emphasis, 119
Privacy rights of students, 428
Probation, 438
Production Center for Documentary and Drama, 41
Professional curricula, 444
Professional development, 60
Professional Studies and Fine Arts, College of, 40 courses, 352
Professors, grievance against, 440
Project North America, 272

Provisional admission, 64
Psychology, 353
Public administration and urban studies, 358
Public and Urban Affairs, Institute of, 41
Public health, Institute for, 39
Public health microbiology, 134
Public relations emphasis, 167 minor, 169
Pupil personnel (school counseling, school psychology) credentials, 186
Radiological health physics, 54,337
Reading/language arts specialist credential, 398
Readmission, 62, 64, 437, 438
Real estate, 227
Real Estate and Land Use Institute (RELUI), 31
Recreation, 361
Recreation, Parks and Tourism, 361
Recreation programs, A.S., 418
Recreation systems management emphasis, 361
Recreation therapy emphasis, 361
Refunds, 20, 70
Regional/cultural studies, 272
Regional Studies of the Californias, Institute for, 28
Registration, 67
advisers at time of, 10
determination of residence, 68 engineers, 35
for extension courses, 60 for Imperial Valley Campus, 48 for Open University and special sessions, 59
Rehabilitation counseling, 54, 97
Relations with schools, 425
Religious studies, 364
Repeated courses, 431
Report in Progress Grade, 429
Residence, determination of, 68
Research centers, 26, 30, 34, 35, 37, 40, 43, 48
Residence halls, 17
Residence requirements for bachelor's degree, 78
Restaurant operations and management emphasis, 87, 259
Retired adults education program, 60
Retired faculty, 468
Rhetoric and writing studies, 368
ROTC
airforce, 103
army, 312
deposit, 70
navy, 324
Russian, 371
and Central European studies, 216
SanBrazil, 271
San Diego State University Foundation, 424
San Diego State University Press, 425

SanDiQué, 271
Sanford Berman Effective Communication and General Semantics, Institute for, 42
SAT - (see Scholastic aptitude test, 62)
Satisfactory progress grade (see Report in progress grade, 429)
Schedule adjustment policy, 61, 62, 436
Scholarships, 20
Scholastic Aptitude Test, 62
School and college relations, 18
School nurse services credential, 327
School psychology credential, 186
Schools, colleges, departments, programs, 6
Sciences, College of, 43
Sculpture emphasis, 119
Secondary education, 400
Second bachelor's degree, 66
Shared vision, viii
Single subject teaching credential, 343, 400
Small business management minor, 297
Smoke free policy, 441
Social Equity Technical Assistance, Center for, 34
Social Policy Institute, 39
Social science, 373
Africa and the Middle East emphasis, 374
environment emphasis, 374
Social Science Research Laboratory, 29
Social Security number, use of, 67
Social work, 376
Sociology, 379
Sororities, 15
Spanish, 383
Spanish and Portuguese languages and
literatures, 351, 383
Special curricula, 88
Special education, 388
Special programs and services, 418
Special study, 92
Specialist credentials
Administrative services, 88, 97
Clinical - rehabilitative services, 88, 390
Deaf and hard of hearing, 88, 391
Mild/moderate disabilities, 88, 388
Moderate/severe disabilities, 88, 389
Physical and health impairments, 88, 389
Pupil personnel (school counseling, school psychology), 88, 186
Reading/language arts specialist, 88, 398
School counseling, 88, 186
School nurse services, 88, 327
School psychology, 88, 186
Speech communication - (see
Communication, 166)

Speech, Language, Hearing Disorders and Deafness Clinic, 38, 421
Speech, language, and hearing sciences, 390
Speech pathology or audiology, 392
State University, The California, 446
Statistics, 395
Strategic Technologies and Research
(STAR) Electronic Business, Center for, 32
Student
activity fee, 69, 72
centers, 14, 418
classification, 435
discipline and grievances, 18, 439, 440
exchanges, international, 423
full-time status, 435
government, 418
insurance, 16, 65, 392
responsibility for catalog
information, 428
union, 69
Student affairs, Division of, 14
Student-athlete, satisfactory academic progress requirement, 439
Student life and development, 18
Student recruitment and school relations, 425
Student rights and responsibilities, 19
Student services, 14
Student success programs, 52
Student teaching - (see Policy studies, 341, or Teacher education, 398)
Studio arts emphasis, 118
Study list limits, 437
Substance Abuse, 440 Center on, 39
Study of International Education, Center for, 34
Summer session,
dates, 4
fees, 71
Teacher education, 398
Teaching
credentials, list of, 33, 88, 398
majors, 341, 398
Teaching and Learning, The Center for, 52
Telecommunications and film emphasis, 406
Television and film emphasis, 405
Television, film and new media production, 406, 410
Test office, 19
Tests
admissions, 63
competency, 74
Theatre, television, and film, 404

Title IX, 429
TOEFL, 65, 66
Topics courses, 92
Tours, campus, 14
TransAmerica, 272
TransAtlantic, 271
Transcripts
evaluation, 437
fee, 70
for admission, 65
of record, 435
unofficial, 435
Transfer courses, acceptance of, 64
Transfer students, requirements, 63, 80
Transportation, 424
Transportation Safety, California Institute of, 35
Travel study programs, 60, 425
Trustees, 447
Tuition and fees, 69
Unclassified graduate student, 55, 66
Undergraduate studies, division of, 52
college readiness programs, 52
honors program, 52
international programs, CSU, 17
objectives and functions, 52
Teaching and Learning, Center for, 52
Unit or credit hour, 92
Units required for graduation, 77
University Center on Aging, 37
University library, 424
University policies, 428
University Seminar, 52
Unofficial withdrawal, 437
Upper division
course credit, 432
units required for graduation, 77
writing requirement, 75
Urban and regional analysis emphasis, 236
Urban studies, 267
U.S. Constitution requirement for
graduation, 76
U.S. Mexican border studies minor, 150

Vacations, 4
Veterans affairs, 425
Visiting students (intrasystem) enrollment, 66
Visual and Performing Arts, Center for, 42
Vocational education, bachelor of, 97
Weather Station, 27
Withdrawal, 429, 437
Women's studies, 413
MEXUS, 413
Writing competency requirement, 74, 75
Writing requirement, upper division, 75
Zoology emphasis, 131

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[^0]:    Ed.D. in the following fields:
    Educational Technology,
    Teaching and Learning

[^1]:    * Registration by telephone (RegLine) will be discontinued in the near future. At that time, registration will only be available via the Internet.

[^2]:    * 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.

[^3]:    * Credit will not be granted for this course if the student has taken an equivalent post-Civil War American history course or American history AP credit.
    ** Credit will not be granted for this course if the student has taken an equivalent American government course or Government/Politics: American AP credit.
    + Credit will not be granted if IB History of the Americas examination is passed.

[^4]:    * Upper division courses in the major and minor must be taken for a letter grade unless they are offered only credit/no credit.

[^5]:    + Only one of these three courses may be taken for General Education credit.

[^6]:    + Only one of these three courses may be taken for General Education credit.

[^7]:    * Speech, Language, and Hearing Sciences 159, 259, and 289 cannot be used to satisfy General Education.

[^8]:    * Cultural diversity course.
    $\wedge$ Taught in English.
    @ English 533 may not be used in place of English 302 for General Education credit.
    $\dagger$ Either Asian Studies 460 (IV.B.) or History 422 (IV.C.) may be taken for General Education credit.

[^9]:    * See following page for NUMBERICAL LISTING OF MAJOR CODES and CREDENTIAL CODES.

[^10]:    * Prerequisite: A grade of C (2.0) or better in Africana Studies 120 or Chicana and Chicano Studies 111B or Linguistics 100 or Rhetoric and Writing Studies 100.

[^11]:    * Mathematics 342A-342B may be substituted for Physics 340A-340B as prerequisite for physics courses, where appropriate.
    + Additional prerequisites required.

[^12]:    201. General Chemistry (5) I, II (CAN CHEM 4)
    (200 + 201: CAN CHEM SEQ A)
    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.
[^13]:    + Indicates course with prerequisites not included in list of courses acceptable for minor

[^14]:    * Refer to General Education section that begins on preceding page.

[^15]:    *Communication 581 prerequisite waived.

[^16]:    Communicative Disorders - Refer to "Speech, Language, and Hearing Sciences" in this section of the catalog.
    Television, Film and New Media Production - Refer to "Theatre, Television, and Film" in this section of the catalog.

[^17]:    * Additional prerequisites required.

[^18]:    * See previous page for specific requirements.
    + Check with department for approved courses.

[^19]:    ** With adviser's permission when the subject is closely related to children's literature.

[^20]:    * General Mathematics Studies 90B and 99B is not offered at the Imperial Valley Campus. Students who do not attain a Cr in General Mathematics Studies 90A at the Imperial Valley Campus should repeat General Mathematics Studies 90A.
    **The ELM requirement is satisfied by this course only if the student has already attempted and failed the ELM.

[^21]:    * Geography 595 may be used to satisfy three units in this group where appropriate and approved by the department.

[^22]:    * Additional prerequisites may be required for courses in the minor.

[^23]:    * Additional prerequisites required.

[^24]:    * 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.

[^25]:    * Rhetoric and Writing Studies 92B is not offered at the Imperial Valley Campus. Students who do not attain a Cr in Rhetoric and Writing Studies 92A at the Imperial Valley Campus should repeat Rhetoric and Writing Studies 92A.

[^26]:    * Prerequisite: Speech, Language, and Hearing Sciences 340L waived for this course.

[^27]:    * Specified sections.

