

2005–2006

General Catalog and Announcement of Courses

VOLUME 92



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<http://coursecat.sdsu.edu/catalog/>



**SAN DIEGO STATE
UNIVERSITY**

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San Diego State University maintains and promotes a policy of nondiscrimination and nonharassment on the basis of race, religion, national origin, sexual orientation, gender, marital status, age, disability or veteran status, including veterans of the Vietnam era.

The policy stands as a statement of this university's moral commitment to the right of all persons to equal opportunity in a nondiscriminating, harassment-free atmosphere. The Office of Diversity and Equity oversees that commitment to equal opportunity.

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

Refer to San Diego State University Senate personnel guidelines, Part III-A-3, pertaining to nondiscrimination as well as California State University Executive Orders 340, 345, and 675.

Annual Calendar

CALENDAR 2005																				
JANUARY							FEBRUARY							MARCH						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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2	3	4	5	6	7	8	6	7	8	9	10	11	12	6	7	8	9	10	11	12
9	10	11	12	13	14	15	13	14	15	16	17	18	19	13	14	15	16	17	18	19
16	17	18	19	20	21	22	20	21	22	23	24	25	26	20	21	22	23	24	25	26
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10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25
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CALENDAR 2006																				
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16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24
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16	17	18	19	20	21	22	20	21	22	23	24	25	26	17	18	19	20	21	22	23
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29	30	31					26	27	28	29	30			24	25	26	27	28	29	30

Academic Calendar

2005–2006

SUMMER TERM 2005

- May 25 First day of summer term.
- May 26 First day of classes.
- May 26–July 8 Session S1.
- May 26–Aug. 23 Session T1.
- May 30 Holiday–Memorial Day.
Faculty/staff holiday. Campus closed.
- July 4 Holiday–Independence Day.
Faculty/staff holiday. Campus closed.
- July 13–Aug. 23 Session S2.
- August 23 Last day of classes. (Final examinations are the last day of classes for each summer session.)
- August 24 Grades due from instructors. (4:00 p.m. deadline.)
- August 24 Last day of summer term.

FALL SEMESTER 2005

- August 25 First day of fall semester.
- August 25 Convocation.
- August 26–27 Faculty/Staff Advising.
- August 28 New Student and Family Convocation.
- August 30 Last day to officially withdraw for fall semester 2005 and receive a full refund.
- August 31 First day of classes.
- Aug. 31–Sept. 21 Schedule adjustment and late registration.
- September 5 Holiday–Labor Day.
Faculty/staff holiday. Campus closed.
- September 21 Last day for payment of fees for late registration.
- September 21 Last day to add classes, drop classes, or change grading basis. No schedule adjustments allowed after 6:00 p.m. on this date.
- September 21 Last day to withdraw officially from the university for fall semester 2005.
- September 21 Last day to file application for bachelor's degree for December 2005 graduation.
- September 21 Last day to file petition for concurrent master's degree credit for fall semester 2005.
- September 21 Last day to apply for December 2005 graduation with an advanced degree, Graduate Division.
- September 28 Census.
- Sept. 30–Oct. 1 Family Weekend.
- October 1 Applications for admission or readmission to San Diego State University for the fall semester 2006 accepted. Applications are **NOT** accepted after November 30 (postmarked). Graduate applicants should consult the *Bulletin of the Graduate Division* for closing dates.
- November 4 Last day to officially withdraw from all classes for fall 2005 and receive a prorated refund (withdrawal after September 21 requires special approval and a penalty fee is assessed).
- November 24–26 Holiday–Thanksgiving recess.
Faculty/staff holiday. Campus closed.
- December 13 Last day of classes before final examinations.
- December 14–21 Final examinations.
- December 24 Winter recess begins.
- Dec. 24–Jan. 2 Holiday–Winter recess.
Faculty/staff holiday. Campus closed.

- January 1 New Year's Day.
- January 2 Holiday–New Year's Day observance.
Faculty/staff holiday. Campus closed.
- January 3 Grades due from instructors. (4:00 p.m. deadline.)
- January 3 Last day to apply for a leave of absence for fall semester 2005.
- January 3 Last day of fall semester.

SPRING SEMESTER 2006

- January 16 Holiday–Martin Luther King, Jr. Day.
Faculty/staff holiday. Campus closed.
- January 17 First day of spring semester.
- January 17 Last day to officially withdraw for spring semester 2006 and receive a full refund.
- January 17 Faculty/Staff Advising.
- January 18 First day of classes.
- Jan. 18–Feb. 7 Schedule adjustment and late registration.
- February 7 Last day for payment of fees for late registration.
- February 7 Last day to add classes, drop classes, or change grading basis. No schedule adjustments allowed after 6:00 p.m. on this date.
- February 7 Last day to withdraw officially from the university for spring semester 2006.
- February 7 Last day to file application for bachelor's degree for May and August 2006 graduation.
- February 7 Applications for bachelor's degree for December 2006 graduation accepted.
- February 7 Last day to file petition for concurrent master's degree credit for spring semester 2006.
- February 7 Last day to apply for May 2006 graduation with an advanced degree, Graduate Division.
- February 14 Census.
- March 11 Last day of classes before spring recess.
- March 13–18 Spring recess.
- March 20 Classes resume.
- March 31 Holiday–Cesar Chavez Day.
Faculty/staff holiday. Campus closed.
- April 3 Last day to officially withdraw from all classes for spring 2006 and receive a prorated refund (withdrawal after February 7 requires special approval and a penalty fee is assessed).
- May 10 Last day of classes before final examinations.
- May 11 Study and consultation day until 4:00 p.m.
- May 11 (after 4:00 p.m.)–18 Final examinations.
- May 19 (after 4:00 p.m.)–21 Commencement days.
- May 22 Grades due from instructors. (4:00 p.m. deadline.)
- May 22 Last day to apply for a leave of absence for spring semester 2006.
- May 22 Last day of spring semester.
- May 29 Holiday–Memorial Day.
Faculty/staff holiday. Campus closed.

SUMMER TERM 2006

- NOTE: Summer session dates to be determined. Refer to SDSU Summer Session *Class Schedule*.
- July 1 Applications for bachelor's degree for May and August 2007 graduation accepted.
- July 4 Holiday–Independence Day.
Faculty/staff holiday. Campus closed.

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

Administration and Organization

Principal Officers of Administration

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

Administration

Office of the President

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

Office of the Provost

Associate Vice President for Academic Affairs	Ethan A. Singer
Executive Director of Enrollment Services	Sandra A. Cook
Associate Executive Director of Enrollment Services	Rita Gajoli
Assistant Executive Director of Enrollment Services	Selma Reed
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Director of Evaluations	Cassie Steadman
Director of Analytical Studies and Institutional Research	Sally Farris
Director of Instructional Technology Services	James P. Frazee
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Associate Vice President for Research	Thomas R. Scott (Interim)
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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

Chair of the Senate

Fredrick W. Hornbeck

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Associate Vice President for Financial Management	
Associate Vice President for Human Resources and Risk Management	Sue Blair
Assistant Vice President	Linda A. Stewart
Director of Facilities Planning and Management	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

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Dean of Students	Douglas J. Van Sickle (Acting)

Assistant Dean of Students	Evette Castillo
Assistant Vice President for Student Affairs Administration	Eric Rivera
Director of Budget and Human Resource Administration	Linda Lewiston
Special Assistant to the Vice President for Student Affairs	Rosa Moreno
Director of Career Services	Frank Neuber (Interim)
Director of Communication Services	Sharon A. Penny
Director of Counseling and Psychological Services	
Director of Disabled Student Services	Mary Shojai
Director of Educational Opportunity Programs and Ethnic Affairs	Reginald S. Blaylock (Interim)
Director of Financial Aid and Scholarships	Chrys Dutton
Director of Information Systems Management	Kevin Carter
Director of International Student Center	Ron Moffatt
Director of New Student and Parent Programs	Janet Castro (Interim)
Director of Residential Education	Cynthia M. Avery
Director of Student Health Services	
Director of Student Rights and Responsibilities	Martin J. Block
Director of Student Testing, Assessment and Research	Reynaldo Monzon
Fraternity and Sorority Life, Coordinator	Douglas Case
Ombudsman, Program Coordinator	Amy Circosta

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Assistant Vice President for Marketing and Communications	Jack Beresford
Associate Vice President for Development	Kim Hill
Executive Director of Alumni Association	James S. Herrick
Chief Financial and Information Officer	Allan R. Bailey
Director of Intercollegiate Athletics	Mike Bohn
President of Aztec Athletic Foundation	Kevin Faulconer

Colleges, Schools, Departments, and Programs

COLLEGE OF ARTS AND LETTERS	Paul Wong, Dean
Associate Dean	Edward V. Heck
Assistant Dean for Student Affairs	Leslie S. Johnson
Director of Development	Nancy Lemkie
Director of Resources Management	Lesley Bryant

Departments	Chair or Director
Africana Studies	Shirley N. Weber
American Indian Studies	Margaret Field
Anthropology	Philip J. Greenfeld
Asia Pacific Studies	Michael A. Weiner
Chicana and Chicano Studies	Ricardo Griswold del Castillo
Classics and Humanities	E. N. Genovese
Economics	Mark A. Thayer
English and Comparative Literature	Sherry B. Little
European Studies	Edith J. Benkov
Geography	John F. O'Leary

History	Joanne M. Ferraro
Linguistics and Oriental Languages	Jeffrey P. Kaplan
Philosophy	Steven L. Barbone
Political Science	Ronald F. King
Religious Studies	Linda D. Holler
Rhetoric and Writing Studies	Glen McClish
Sociology	Phillip T. Gay
Spanish and Portuguese Languages and Literatures	Carlos Guillermo Wilson (Interim)
Women's Studies	Susan E. Cayleff

Programs

Africa and Middle East Studies	Charles H. Cutter
Environment and Society	Sarah S. Elkind
General Mathematics Studies	Glen McClish
International Business	Steven J. Loughrin-Sacco
International Security and Conflict Resolution	Dipak K. Gupta
Jewish Studies	Lawrence Baron
Latin American Studies	James B. Gerber
M.A., Liberal Arts and Sciences	Alan E. Kilpatrick
Social Science	Carole Putko
Urban Studies	Roger W. Caves

COLLEGE OF BUSINESS

ADMINISTRATION	Gail K. Naughton, Dean
Associate Dean for Academic Affairs	James R. Lackritz
Associate Dean and Director of Graduate Program	Kenneth E. Marino
Assistant Dean for Student Affairs and Director of the Business Advising Center	Patricia N.L. Dintrone
Assistant Dean for Student Relations	Jeffrey W. Glazer
Director of Communications	Randy Carmical
Director of Executive Management Programs	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	Gangaram Singh
Marketing	George E. Belch

Programs

Project Amigos	Teresa Cisneros Donahue
Hospitality and Tourism Management	Carl Winston
International Business	Steven J. Loughrin-Sacco

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. Ochoa
SDSU/USD	Cheryl L. Mason
Director of Credentials Processing Center	Helen Duffy
Assistant Director of Development	Elissa Oransky
Manager of Budget and Analysis	Francis Fox
Coordinator of the Office of Advising and Recruitment	Sylvia Hernandez

Departments and Schools *Chair or Director*

Administration, Rehabilitation and Postsecondary Education	Fred R. McFarlane
Counseling and School Psychology	Carol A. Robinson-Zañartu
Educational Leadership	Margaret R. Basom
Educational Technology	Marcie J. Bober
Policy Studies in Language and Cross-Cultural Education	Ruben W. Espinosa (Interim)
Special Education	Eugene C. Valles
Teacher Education	Nancy Farnan

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 Engineering Mechanics	Joseph Katz
Civil and Environmental Engineering	Janusz C. Supernak
Electrical and Computer Engineering	R. Lal Tummala
Mechanical Engineering	Karen D. May-Newman

COLLEGE OF HEALTH AND

HUMAN SERVICES Marilyn Newhoff, Dean

Associate Dean	Olita D. Harris
Assistant Dean for Student Affairs	Richard C. Reed

Departments and Schools *Chair or Director*

Gerontology	Mario D. Garrett
Graduate School of Public Health	Ann de Peyster (Interim)
Nursing	Patricia R. Wahl
Social Work	Anita S. Harbert
Speech, Language, and Hearing Sciences	Beverly B. Wulfbeck (Interim)

Program

Community Health Education	Virginia S. Kreisworth
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COLLEGE OF PROFESSIONAL STUDIES

AND FINE ARTS Joyce M. Gattas, Dean

Associate Dean	Donald R. Martin
Assistant Dean for Student Affairs	Carole A. Robasciotti
Director of Resource Management	Sue Kasuyama
Director of Special Projects	Michele Schlecht

Departments and Schools *Chair or Director*

Aerospace Studies	Richard A. Rankin
Art, Design and Art History	Ida K. Rigby (Interim)
Child and Family Development	Thomas W. Roberts
Communication	William F. Eadie
Exercise and Nutritional Sciences	Peter M. Aufesser (Interim)
Military Science	Kent R. Rideout
Music and Dance	Martin J. Chambers
Naval Science	Craig W. Turley
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	Dipak K. Gupta
Urban Studies	Roger W. Caves

Administration and Organization

COLLEGE OF SCIENCES Thomas R. Scott, Dean
Associate Dean for Academic Affairs Patrick J. Papin
Associate Dean for Faculty Affairs Catherine J. Atkins
Assistant Dean for Student Affairs Estralita Martin
Director of Development

Departments *Chair or Director*
Astronomy Allen W. Shafter
Biology Christopher C. Glembotski
Chemistry and Biochemistry Carl J. Carrano
Computer Science Leland L. Beck
Geological Sciences Gary H. Girty
Mathematics and Statistics F. David Lesley
Physics Patrick J. Papin
Psychology Claire Murphy

Programs

Biomedical Quality Systems E. Dale Sevier
Computational Science José E. Castillo
Environmental Sciences Alan R. Sweedler
International Security and
Conflict Resolution Dipak K. Gupta
Molecular Biology Greg L. Harris
Natural Science Phoebe E. Roeder
Oceanography Clive E. Dorman
Regulatory Affairs A. Stephen Dahms

IMPERIAL VALLEY CAMPUS **Stephen B. W. Roeder, Dean**
Associate Dean for Academic Affairs Stephen A. McNett
Assistant Dean for Student Affairs Miguel Rahiotis (Interim)
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)
Associate Dean for Student Services,
Policy and Curriculum Penny L. Wright
Associate Dean for Faculty and
Student Development Bonnie K. Scott

Research Division

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

**OFFICE OF THE DEAN OF
UNDERGRADUATE STUDIES** Geoffrey W. Chase, Dean
Associate Dean Patricia Patterson
Assistant Dean Bonnie M. Anderson
Director of University Honors Program Jung Min Choi
Director of Center for Teaching and Learning Brock S. Allen
Director of College Readiness Programs José Preciado
Associate Director of Development for
University Scholarships Patti Scott

Programs

Faculty-Student Mentoring Program
Freshman Success Programs Melody L. Kilcrease
Information, Communication, and
Technology Program Catherine J. Atkins
Interdisciplinary Studies in
Three Departments Bonnie M. Anderson
Liberal Studies Phoebe E. Roeder

OFFICE OF THE DEAN OF

EXTENDED STUDIES William E. Byxbee, Dean
Associate Dean for Administration Joseph B. Shapiro
Assistant Dean Jan Wahl
Executive Director of Marketing
and Public Relations Dale Bonifield
Executive Director of Professional
Development Tamara McLeod
Executive Director of American Language
Institute Marla Federe
Director of Certificates Wendy Evers
Director of Corporate Learning and
Performance Liz L. Sondhaus
Director of Credit Community Education Francesca Ringland
Director of Non-Credit Community Education
and Retired Adults Leslie Koch
Director, Learning Solutions Judy Blum

Auxiliary Organizations

The Campanile Foundation

President Stephen L. Weber
Chief Executive Officer Theresa M. Mendoza
Chief Financial Officer/Treasurer Allan R. Bailey

San Diego State University Research Foundation

President Stephen L. Weber
Vice President Thomas R. Scott (Interim)
Chief Executive Officer Frea E. Sladek

Aztec Shops, Ltd.

Chief Executive Officer Larry Marmon

The Associated Students of San Diego State University

President Kelli Kedis
Executive Director Dan Cornthwaite

Academic Advising

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

Mission and Purpose

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

Why Academic Advising Is Important

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

Advising Is Available to Help Students

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

Major Academic Plans (MAPs)

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

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

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

What Are the Students' Responsibilities Regarding Advising?

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

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

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

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

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

Where To Go For Academic Advising

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

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

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

For general requirements for the master's or doctoral degrees (except for the major), contact the 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 Processing Center, Business Administration, Room 250, 619-594-5964.

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

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

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

Advising Centers

Academic Advising Center 619-594-6668

Student Services, Room 1551 FAX 619-594-1553

Academic advice is available through the SDSU WebPortal at <http://www.sdsu.edu/portal>.

Monday through Thursday, 9:00 a.m. - 6:00 p.m.;
Friday, 9:00 a.m. - 4:00 p.m.

Graduation Requirements	University Academic
General Education	Policies and Regulations
Undeclared Students	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

Pre dental
Geology/Mathematics/Computer Science, Room 323 619-594-6638

Pre education
University Advising Center
Student Services, Room 1641 619-594-6668

Prelaw*
Nasatir Hall, Room 130 619-594-5028

Premedical
Geology/Mathematics/Computer Science, Room 323 619-594-6638

Prenursing
Hardy Tower, Room 54 619-594-6527

Preoccupational Therapy
Exercise and Nutritional Sciences, Room 331 619-594-5161

Preoptometry
Geology/Mathematics/Computer Science, Room 323 619-594-6638

Prepharmacy
Geology/Mathematics/Computer Science, Room 323 619-594-6638

Prephysical Therapy, Exercise and
Nutritional Sciences, Room 331 619-594-5161

Prephysician Assistant
Geology/Mathematics/Computer Science, Room 323 619-594-6638

Prepodiatry
Geology/Mathematics/Computer Science, Room 323 619-594-6638

Presocial Work
Hepner Hall, Room 148 619-594-5803

Preveterinary Medicine
Geology/Mathematics/Computer Science, Room 323 619-594-6638

* Advisers in prelaw are not available during the summer months.

COLLEGE OF ARTS AND LETTERS

Assistant Dean 619-594-6270
Storm Hall, Room 134

Africana Studies
Adams Humanities, Room 3131 619-594-6531

American Indian Studies (Minor)
Adams Humanities, Room 3104 619-594-6991

Anthropology
Storm Hall, Room 143B 619-594-5527

Asia Pacific Studies
Gateway Center, Room 2504 619-594-0931

Chicana and Chicano Studies
Adams Humanities, Room 3162 619-594-6452

Classics and Humanities
Adams Humanities, Room 4231 619-594-5186

Economics
Nasatir 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 431 619-594-4505

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)
Adams Humanities, Room 4189 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
Nasatir Hall, Room 127 619-594-6244

Religious Studies
Adams 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

Sociology
Nasatir 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	619-594-5828
Undergraduate Web site: http://rohan.sdsu.edu/~ugbus/	
Accountancy	International Business
Finance	(See College of Arts and Letters)
Financial Services	Management
Hospitality and Tourism	Marketing
Management (See Professional	Pre-Business
Studies and Fine Arts)	Real Estate
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 Dean	
Business Administration, Room 346	619-594-1426
Office of Advising and Recruitment	
Business Administration, Room 259	619-594-6320
Adaptive Physical Education	
Exercise and Nutritional Sciences, Room 318	619-594-4703
Administrative, Rehabilitation and Postsecondary Education	
3590 Camino del Rio North	619-594-6115
Administrative Services	
Postsecondary Educational Leadership	
Counseling and School Psychology	
North Education, Room 179	619-594-6109
Pupil Personnel Services	
School Counseling	
School Psychology	
Educational Technology	
North Education, Room 280	619-594-6718
Master's Programs	
Business Administration, Room 246	619-594-6544
Doctoral Programs	
SDSU/CGU: Education, Room 100K	619-594-1120
SDSU/USD: Education, Room 120	619-594-1378
Nursing (Health Services—School Nurse)	
Hardy Tower, Room 58	619-594-5495/594-6384
Policy Studies in Language and Cross-Cultural Education	
Business Administration, Room 248	619-594-5155
Multiple and Single Subject B/CLAD Emphasis	
CLAD or BCLAD Credential in Mexico	
BCLAD Certificate	
Language Development Specialist Certificate	
Social Work	
Hepner Hall, Room 119	619-594-5197
Pupil Personnel Services	
Child Welfare and Attendance	
School Social Work	
Special Education	
North Education, Room 70	619-594-6665
Specialist Credentials	
Early Childhood Special Education	

Mild/Moderate Disabilities
Moderate/Severe Disabilities
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	
Business Administration, Room 255	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 436	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 and Biochemistry (Chemical Physics)	
Geology/Mathematics/Computer Science, Room 209	619-594-5595
Computer Science	
Geology/Mathematics/Computer Science, Room 413	619-594-6191
Geological Sciences	
Geology/Mathematics/Computer Science, Room 237	619-594-5586
General Geology	Hydrogeology
Engineering Geology	Marine Geology
Geochemistry	Paleontology
Geophysics	Oceanography (Minor)
International Security and Conflict Resolution	
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 03	619-594-5412

DIVISION OF UNDERGRADUATE STUDIES

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

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
Child and Family Development, English, History, Spanish	
Aracely Bojorquez	760-768-5506
Criminal Justice Administration, Latin American Studies, Liberal Studies, Psychology, Public Administration	
Roberto González, Jr.	760-768-5668
Liberal Studies, Social Science	
Americo Yacopi	760-768-5603
Mathematics	
Miguel Rahiotis	760-768-5502

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. Mindy S. West	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 is available at <http://www.sdsu.edu/schedule>.

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

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

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

Student Services

Division of Student Affairs

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

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

The Division of Student Affairs consists of the following departments:

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

Career Services

Student Services, Room 1200

Telephone: 619-594-6851

<http://career.sdsu.edu>

Career counselors assist students in the exploration of their skills, interests and values as they choose a major and develop a career plan. A variety of computerized instruments are used in the career counseling and job search process. An extensive Career Library contains occupational/career information, employer reference materials, directories, video and audio tapes, interactive computer assisted programs, and Internet resources for the job search.

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

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

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

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

Various services are offered to alumni for a nominal fee.

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

Counseling & Psychological Services

Student Services, Room 2109

Telephone: 619-594-5220

<http://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, self-esteem, 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 Center for Well-Being 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.

Office of the Dean of Students

Student Services, Room 1602

Telephone: 619-594-5221

<http://www.sa.sdsu.edu/dean/>

The Office of the Dean of Students helps students connect to the university by providing student-centered programs, services, and opportunities. Involved students who engage in their own learning have a richer college experience. Academic and co-curricular activities support the personal and career goals of each student. Students are encouraged to pursue academic success, leadership development, personal growth, understanding of diverse human experiences, and civic responsibility. The Office of the Dean of Students includes the following:

Centers for Student Involvement

<http://www.csi.sdsu.edu>

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

Student Testing, Assessment and Research

<http://www.sa.sdsu.edu/testofc/index.html>

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

Career Services

<http://career.sdsu.edu>

Refer to Career Services in this section for complete details.

Disabled Student Services (DSS)

Student Services, Room 1661

Telephone: 619-594-6473

TDD: 619-594-2929

<http://www.sdsu.edu/dss>

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

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

In addition, DSS offers special sections of classes aimed at helping students achieve academic success and fulfill university requirements. Rhetoric and Writing Studies 280 is designed to help students

develop their writing skills and satisfy the prerequisite for the upper division writing requirement. Rhetoric and Writing Studies 98A is designed to teach students effective test preparation, notetaking, and other strategies to help them improve their academic performance.

Educational Opportunity Program/Ethnic Affairs (EOP)

Student Services, Room 2209

<http://eop.sdsu.edu>

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

The Educational Opportunity Program/Ethnic Affairs (EOP) is an undergraduate program designed to admit, retain, and graduate historically low income, first generation, disadvantaged college students. Eligible first time freshman and transfer students must be California residents and can only be admitted into the program during their first semester of attendance at SDSU. It is the purpose of the program to support those students who have the interest and motivation to obtain a college education, but who have not been able to realize their full potential due to economic or educational factors. Student services are provided throughout their undergraduate studies and are designed to insure academic success.

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

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

Fraternity and Sorority Life

Student Services, Room 1602

Telephone: 619-594-4745

<http://www.greeklife.sdsu.edu>

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

Health Services

Corner, Campanile Drive and Hardy Avenue

Telephone: 619-594-5281

<http://shs.sdsu.edu>

All regularly enrolled SDSU students have prepaid a health fee as part of their tuition and fees which entitles them to basic medical services. Some services, including annual Pap smears and pharmacy, require a minimal fee. Charges associated with these services are

usually dramatically lower than those found elsewhere. This care is provided at Student Health Services, an on-campus center where health care providers offer a wide range of programs and services. Services include:

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

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

All new or readmitted students born on or after January 1, 1957 must provide proof of immunity against measles and rubella (German Measles) during their first semester at SDSU. The **minimum** requirement is proof of at least one immunization for measles and rubella given after the first birthday and after 1968. *(All students are encouraged to consider a second measles immunization.)*

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

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

Hepatitis B

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

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

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

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

In addition to demonstrating immunity to measles and rubella at Student Health Services, some students may be further required to present documentation to other campus officials. Students subject to this additional screening include:

Students who reside in campus residence halls;

Students who obtained their primary and secondary schooling outside the United States;

Students enrolled in dietetics, medical technology, nursing, physical therapy and any practicum, student teaching, or fieldwork involving preschool-age children and/or school-age children or taking place in a hospital or health care setting.

Meningococcal Disease

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

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

Strongly Recommended Health Screening

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

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

Appointments

Students without acute or urgent problems are encouraged to make an appointment. Those with problems requiring immediate medical attention should walk in. Student Health Services is open twelve months of the year. The clinic is open from 8:00 a.m. to 4:30 p.m., Monday through Friday (call for extended hours of operation). 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 or online at <http://www.csuhealthlink.com>. The university makes no warranties as to the nature or quality of the coverage or the financial integrity of the insurers. The information on the availability of coverage is provided as a convenience to the students.

Housing Administration and Residential Education

6050 Montezuma Road
Telephone: 619-594-5742
<http://www.sdsu.edu/housing>

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

Residence Halls

Residence halls offer a number of accommodations and special interest living areas. Currently, special interest living areas include extended quiet study, substance-free, freshman Living/Learning Community, International House, Housing Over the Break, and Aztec Engineering Residence. These areas may vary from year to year depending upon student interest. Eight co-educational residence halls/complexes house about 3,500 students. Each hall/complex offers a lounge area, study room, recreation room, and laundry facilities. All residents have access to residential dining at the University Towers dining facility and The Dining Room at Cuicacalli Suites.

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 Community complex of two, three-story, red-brick halls (Maya and Olmeca). On the west side are 11-story Chapultepec Hall and nine-story University Towers. Each red-brick hall accommodates approximately 210 students. High-rises house from 350 to 680 students each.

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

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

apartment complex accommodates 354 students in furnished two-bedroom units (four residents per apartment).

For the 2004-2005 academic year, the costs for room and board range from \$7,481 to \$11,572 depending on double or single occupancy and the meal plan selected. Fees for Villa Alvarado, which do not include board, were \$5,448 for the 2004-2005 academic year. Rates for all halls are reviewed and adjusted annually to meet cost-of-living increases.

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

Confirmation of a room reservation is made after the following requirements have been met: (a) the student has been admitted to the university; (b) the signed license agreement has been returned to the Office of Housing Administration; and (c) the first payment has been received as specified. Though consideration will be given to a student's request for an individual hall and roommate, a specific assignment cannot be guaranteed.

Piedra del Sol Apartments

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

Off-Campus Housing

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

International Student Center

International Student Center
Telephone: 619-594-1982
<http://www.sdsu.edu/isc>

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

International Students

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

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

Study Abroad Students

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

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

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

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

As with increasing inbound international enrollment, the ISC plays a central role in SDSU's efforts to dramatically increase study abroad enrollment. In the last six years, the number of SDSU students studying abroad has increased more than 500 percent (from 167 to over 1,150 students), ranking us in the top three institutions in the United States in our category.

The California State University International Programs

Developing intercultural communication skills and international understanding among its students is a vital mission of The California State University (CSU). Since its inception in 1963, the CSU International Programs has contributed to this effort by providing qualified students an affordable opportunity to continue their studies abroad for a full academic year. More than 15,000 CSU students have taken advantage of this unique study option.

International Programs participants earn resident academic credit at their CSU campuses while they pursue full-time study at a host university or special study center abroad. The International Programs serves the needs of students in over 100 designated academic majors. Affiliated with more than 70 recognized universities and institutions of higher education in 18 countries, the International Programs also offers a wide selection of study locales and learning environments.

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

Canada. The universities of the Province of Quebec including: Université de Montréal, Concordia University, Université Laval, McGill University, Université du Québec 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 Françaises pour Etudiants Étrangers, L'Académie d'Aix-Marseille (Aix-en-Provence), Universités de Paris III, IV, V, VI, VII, VIII, IX, X, XI, XII, XIII, and 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), Università degli Studi di Firenze, La Accademia di Belle Arti Firenze

Japan. Waseda University (Tokyo)

Korea. Yonsei University (Seoul)

Mexico. Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), Campus Querétaro

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

Spain. Universidad Complutense de Madrid, Universidad de Granada

Sweden. Uppsala University

Taiwan. National Taiwan University (Taipei), National Tsing Hua University

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

International Programs pays all tuition and administrative costs for participating California resident students to the same extent that such funds would be expended to support similar costs in California. Participants are responsible for all personal costs, such as transportation, room and board, living expenses, and home campus fees. Financial aid, with the exception of Federal Work-Study, is available to qualified students.

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

Information and application materials may be obtained from the International Student Center or by writing to The California State University International Programs, 401 Golden Shore, Sixth Floor, Long Beach, California 90802-4210. Visit the Web site at <http://www.gateway.calstate.edu/csuienet/>.

New Student and Parent Programs

Student Services, Room 2549

Telephone: 619-594-1509

<http://www.sa.sdsu.edu/nspp>

The Office of New Student and Parent Programs provides programs and services that help all new students and their families connect to SDSU. Research has shown that students who make a connection early in their college career, are given proper tools to navigate the university, and have involved parents, are more likely to be academically successful and have a better all-around college experience.

Orientation

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

New Student and Family Convocation

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

Welcome Week

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

Campus Tours

The 40-to-60 minute walking tour encompasses the main part of the campus and includes narration on the history and traditions of the university. Campus tours highlight various landmarks at SDSU including Hepner Hall, Cox Arena, and Aztec Center. Tour guides also include general information about admission, housing, and student life. Tours are offered Monday-Friday 9:00am-2:00pm hourly during the fall and spring semester and depart from the Prospective Student Center. Campus tours are conducted by the SDSU Ambassadors, current students specially trained to share their university experience with prospective students and their guests.

The SDSU Ambassadors

The SDSU Ambassadors are the official tour guides, orientation leaders, and student representatives of San Diego State University. The Ambassadors are carefully selected and trained in order to represent SDSU at new student orientation programs and at campus and community events. To find out how to become an Ambassador, or for information about scheduling campus tours, please contact the Ambassadors at 619-594-6868 or via e-mail at ambassad@mail.sdsu.edu

The Aztecs Parents Association

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

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

Family Weekend

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

Ombudsmen

Student Services, Room 1105
Telephone: 619-594-6578
<http://www.sa.sdsu.edu/ombuds>

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

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

Examples of student complaints that have been resolved through this process include disputes over grades, faculty or staff conduct, academic disputes, appeals or waivers, administrative policies, and institutional compliance with federal and state nondiscrimination laws. Should

a complaint not be resolved at the referral level, the ombudsmen may act as mediators and suggest compromise solutions between parties. If the problem is still unresolved, the student may file a grievance with the student grievance committee. No student grievance can be filed with this committee later than the last day of the semester (excluding summer term) after the semester during which the student was allegedly aggrieved.

Student Rights and Responsibilities

Student Services, Room 1604
Telephone: 619-594-3069
<http://www.sa.sdsu.edu/srr>

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

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

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

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

Student Testing, Assessment and Research

Student Services, Room 2549
Telephone: 619-594-5216
FAX: 619-594-5036
<http://www.sa.sdsu.edu/testofc/index.html>

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

Test dates for San Diego State University competency and placement tests are listed in the Test Information section of the current *Class Schedule* and on our Web site. Advance reservations as well as fee payments are required for most tests. The Office of Student Testing, Assessment and Research 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 Office of Student Testing, Assessment and Research 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 Office of Student Testing, Assessment and Research 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 and institutional aid programs is available from the Office of Financial Aid and Scholarships located in Student Services, Room 3605. The phone number is 619-594-6323. The SDSU *Guide to Financial Aid* describes the available programs as well as the academic standards that a student must maintain in order to remain eligible for such aid. The *Guide to Financial Aid* can be accessed at <http://www.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 <http://www.fafsa.ed.gov>. Paper FAFSA applications are also available and may be picked up at high school counseling offices and college financial aid offices.

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

Cost of Living

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

Costs of Attendance for the 2005-2006 Academic Year

	Living off Campus	Living on Campus	Commuting from Home
Registration fees	\$2936	\$2936	\$2936
Books and supplies	1242	1242	1242
Food and housing	9053	9391	3319
Transportation	1010	790	813
Miscellaneous/Personal	2415	2315	2490
Total.....	\$16,656	\$16,674	\$10,800

The academic year registration fee for a postbaccalaureate student is \$3422 and \$3308 for a teaching credential student. 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 uses e-mail and the Internet to communicate with aid applicants about documentation needed, disbursement holds, and awards. The Office of Financial Aid and Scholarships home page and secure Web site, *AidLink*, have been enhanced to streamline the application and award process for SDSU students. Go to SDSU's Web site at <http://www.sdsu.edu/portal> and select E-Mail/Address Update to make sure there is a valid e-mail address on record for you with the Office of the Registrar. Use *AidLink* at <http://www.sdsu.edu/financialaid> to view your personal financial aid information, download and print documents you need to submit, activate your student loan, and more.

Scholarships

Scholarships reward academic excellence and are not generally based on financial need. 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 Scholarship Application Procedures and Eligibility Requirements

A scholarship is a monetary award given to outstanding students in recognition of their academic excellence, leadership, achievements, and promise. Scholarship funds are provided by private donors, corporations, professional associations, and SDSU alumni.

Competition is based on outstanding academic achievement, campus and extracurricular activities, employment, and an essay. Undergraduates must have a 3.50 overall Grade Point Average (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 GPA 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 individual scholarships and the SDSU scholarship program described above are available on the SDSU Office of Financial Aid and Scholarships Web site at <http://www.sdsu.edu/financialaid>.

The SDSU University Scholarship applications are available each year on the SDSU Office of Financial Aid and Scholarships Web site at <http://www.sdsu.edu/financialaid> during the application period, November through early February. The SDSU University Scholarship application must be filed or postmarked not later than the established deadline of the first Monday in February. Students need to submit only

one application for the SDSU University Scholarship program. However, additional scholarships are offered during the University Scholarship cycle, the fall semester scholarship cycle, and a late spring semester scholarship cycle each year. Students will want to check the SDSU Office of Financial Aid and Scholarships Web site at <http://www.sdsu.edu/financialaid> every semester for these additional scholarship opportunities.

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. 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 GPA. Scholarships that include room, board, books, and in-state fees may be awarded to incoming freshmen providing a minimum 3.5 GPA 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. Information about these application forms and deadlines is made available on the Office of Financial Aid and Scholarships Web site at <http://www.sdsu.edu/financialaid> every semester for these additional scholarship opportunities.



College of Arts and Letters

Administration

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

General Information

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

Curricula Offered

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

Doctoral Program

Geography

Master's Degrees

Anthropology (M.A.), Asian Studies (M.A.), Chicana and Chicano Studies (M.A.), Creative Writing (M.F.A.), Criminal Justice and Criminology (M.S.; jointly with the College of Professional Studies and Fine Arts), Economics (M.A.), English (M.A.), French (M.A.), Geography (M.A., M.S.), History (M.A.), Latin American Studies (M.A.), 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.), Anthropology (B.A.), Asian Studies (B.A.), Chicana and Chicano Studies (B.A.), Classics (B.A.), Comparative Literature (B.A.), Economics (B.A.), English (B.A.), European Studies (B.A.), French (B.A.), Geography (B.A., B.S.), German (B.A.), History (B.A.), Humanities (B.A.), International Business (B.A.; jointly with the College of Business Administration), International Security and Conflict Resolution (B.A.; jointly with the College of Professional Studies and Fine Arts and the College of Sciences), Japanese (B.A.), Latin American Studies (B.A.), Linguistics (B.A.), Philosophy (B.A.), Modern Jewish Studies (B.A.; consortial within CSU), Political Science (B.A.), Religious Studies (B.A.), Russian (B.A.), Russian and Central European Studies (B.A.), Social Science (B.A.), Sociology (B.A.), Spanish (B.A.), Urban Studies (B.A.), Women's Studies (B.A.).

Minors

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

Preprofessional Curriculum

Prelegal

Certificate Programs

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

Research Centers and Institutes

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

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

The Africana Center is housed in the Department of Africana Studies and can be reached by calling the department office at 619-594-6531 or Dr. Cornwell at 619-594-4131.

Bread and Roses Center

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

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

The Bread and Roses Center is housed in the Department of Women's Studies and can be reached by calling the department office at 619-594-2952.

Chinese Studies Institute

Li-Rong Lilly Cheng, Director

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

Institute of Druze Studies

Samy Swayd, Director

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

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

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

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 and research as a means of clarifying moral problems. It also aims to raise the profile of the moral dimensions of contemporary issues. The institute is housed in the Department of Philosophy, but seeks interdisciplinary discussion and collaboration since clarity on contemporary moral problems often involves both the application of normative theorizing and empirical investigation. The institute organizes and sponsors a variety of programs on applied and theoretical moral issues. Among these programs are colloquia, community outreach talks, lectures, and student essay contests.

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, 619-594-5111 or 594-5671; jschorr@mail.sdsu.edu.

Center for International Business Education and Research (CIBER)

Steven J. Loughrin-Sacco and Lois Olson, Co-Directors

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; 619-594-8599; FAX 619-594-7738; ciber@mail.sdsu.edu; <http://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 K. 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)

Marc Siegel, Director

The International Technology and Trade Network (ITTN), an institute of San Diego State University's Center for International Business Education and Research (CIBER), is a collaborative offering of the College of Arts and Letters and the College of Business Administration. The objective of the ITTN is to promote methods for creating a stable economic environment for transnational business, trade, and research. The institute will seek ways to use business as a catalyst for regional peace and cross-border economic development. This effort will focus on networking together business assistance organizations, academic institutions, and research centers in regions of conflict and emerging economies. We will establish a virtual business assistance network that will take advantage of the latest Internet, information, and telecommunications technologies to provide business-to-business and organizational links. We will use these technologies to share information as well as provide educational, training and distance learning opportunities to participating members of the network. For more information, contact David Earwicker with the SDSU CIBER at 619-594-6023 or david.earwicker@sdsu.edu.

Center for Islamic and Arabic Studies

Paul Wong, Acting Director

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

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

Latin American Studies

James B. Gerber, Director

Ramona L. Pérez, Associate Director

The Center for Latin American Studies supports teaching and research related to Latin America. It has primary responsibility for the administration of the Latin American studies undergraduate and graduate degrees. It also participates in joint degree programs in international business, business administration, and public health. Since 1976, the Center for Latin American Studies has been designated a National Resource Center for Latin American Studies by the United States Department of Education and funded through a Title VI grant, in consortium with the Center for Iberian and Latin American Studies at the University of California, San Diego. CLAS, along with CIBER and LARC, is one of three Title VI funded centers on the San Diego State University campus. In conjunction with this award, the center administers programs that are interdisciplinary, drawing on the expertise of an outstanding Latin Americanist faculty from the following departments and schools: Anthropology; Art, Design, and Art History; English and Comparative Literature; Economics; Geography; History; Political Science; Public Administration and Urban Studies; Public Health; Social

Work; Sociology; Spanish and Portuguese Languages and Literatures; Women's Studies; and the College of Business Administration. In addition, the center is involved with the development of innovative methods of instruction in Spanish, Portuguese, and Mixtec; the provision of information and in-service training programs for elementary and secondary school teachers; and the provision of services for the general public through the sponsorship of conferences, workshops, lectures, and films. The center also assists in the development of the university library's Latin American holdings. The center has cooperative agreements for research, faculty, and student exchanges with several Latin American universities, particularly in Mexico, Chile, and Costa Rica.

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

Jerome J. Griswold, Director

For 25 years, SDSU's Children's Literature Circle has served as a focus for regional commitment to children's literature and for enhancing 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.

National Language Resource Center/ Language Acquisition Resource Center (LARC)

Directors, Mary Ann Lyman-Hager and Paul Wong

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

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

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

Center for Qualitative Research

Paul W. Sargent, Director

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

- Create and sustain an interdisciplinary community of scholars whose principle research focus is qualitative rather than quantitative.
- Organize and facilitate workshops and colloquia focusing on the key issues facing qualitative researchers such as methodological, epistemological, and ethical issues.
- Provide a forum for the dissemination of the products of qualitative research across all disciplines. In particular, the center sponsors several colloquia each academic year where faculty and students can showcase their work to an appreciative audience. In addition, the center archives and publicly displays samples of ethnographic work.
- Furnish a connection between the intellectual community of San Diego State University and surrounding communities by promoting locally relevant research.

For more information call 619-594-2783; CQR@sdsu.edu.

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 States-Mexican border region. Although the institute focuses on the border region of California, Baja California, the United States, and Mexico, it is also concerned with important issues of border regions elsewhere in the world.

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

Other institute activities include conducting binational symposia; improving communication between public and private sector representatives on both sides of the border; serving as a clearinghouse for

information on transborder events, issues, and institutions; and encouraging the effective use of educational resources among the region's universities. The institute serves as a major link between SDSU and Mexican universities and institutions.

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

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

Social Science Research Laboratory

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 four units: Instructional Services, Research Services, Data and Web Services, and Systems Support Group. The department employs 14 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, faculty, and staff. This is accomplished through four programs: (1) one-unit Social Science courses on the use of statistical, database, spreadsheet, presentation, word processing, and Web page development software and on utilizing academic internet resources; (2) class presentations requested by faculty to support computer-related instructional assignments; (3) individual consultation for students using SSRL's open-access computing classrooms; and (4) software coaching program for individual CAL faculty and staff.

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 and Web Services provides support to the College of Arts and Letters (CAL) in the areas of web site design and the use of archived social science datasets. Sources of archived datasets include: the Inter-University Consortium for Political and Social Research (ICPSR), the Social Science Database Archive (SSDBA), the U.S. Census, Field Institute California Polls, and the Roper Center for Public Opinion Research. Assistance is provided for locating, downloading, installing and subsetting datasets for instructional or research applications. Web services for CAL departments and faculty include visual design, cognitive structure development, usability testing, and site maintenance.

Systems Support Group provides technical support for College of Arts and Letters computing systems. Services include managing computer classrooms, conducting network administration, installing operating systems, software applications and hardware, performing virus recovery, and providing procurement advice. The CAL Help Desk serves as the initial point of contact 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 online system that schedules technical services.

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 <http://www.sdsu.edu/business>.

Administration

Dean: Gail K. Naughton

Associate Dean for Academic Affairs: James R. Lackritz

Associate Dean and Director of
Graduate Program: Kenneth E. Marino

Assistant Dean for Student Affairs and Director of the Business
Advising Center: 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

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

Bachelor's Degrees

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

Minors

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

Certificate Programs

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

Research Centers and Institutes

Center for Community Economic Development (CCED)

Linda M. Guzzo, Director

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

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

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

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

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 responsible corporate governance principles. Founded in 1998, the mission of the

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

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 <http://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 are essential to the future of the San Diego region. The mission of the EMC is to assist this sector of the economy through educational programs focused on the application of the underlying principles and perspectives of entrepreneurship offered to students, organizations, and individuals.

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

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

Center for Hospitality and Tourism Research

Robert A. Rauch, CHA, Director

The Center for Hospitality and Tourism Research 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 436, 619-594-4964; <http://www.sdsu.edu/business/htm>.

Center for International Business Education and Research (CIBER)

Steven J. Loughrin-Sacco and Lois Olson, Co-Directors

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CIBER is located in Business Administration 428; 619-594-8599; FAX 619-594-7738; ciber@mail.sdsu.edu; <http://www.sdsu.edu/ciber>.

International Technology and Trade Network (ITTN)

Marc Siegel, Director

The International Technology and Trade Network (ITTN), an institute of San Diego State University's Center for International Business Education and Research (CIBER), is a collaborative offering of the College of 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 Diane Coseo with the SDSU CIBER at 619-594-8599 or dcoseo@projects.sdsu.edu.

Real Estate and Land Use Institute (RELUI)

James L. Short and Andrew Q. Do, Co-Directors
Roger J. Brown, Research 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.

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

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

RELUI also sponsors an internship program for placement of qualified students with local firms to provide a combined working and learning experience. For more information, call 619-594-2301. E-mail: relui@mail.sdsu.edu.

Strategic Technologies and Research (STAR) Center for Electronic Business

Annette Easton and George Easton, Co-Directors

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

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

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



College of Education

Administration

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

General Information

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

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

Curricula Offered

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

Doctoral Programs

Ph.D. in Education

Ph.D. in Mathematics and Science Education

Ed.D. in the following fields:
Educational Leadership,
Educational Technology,
Teaching and Learning

Educational Specialist

Ed.S. in School Psychology

Master's Degrees

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

Bachelor's Degree

Vocational Education (B.V.E.)

Minor

Educational Technology

Teaching and Service Credentials*

Credential Program

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

School Service Authorized

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

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

Teach single subject area in grades K-12 and provide Specially Designed Academic Instruction in English (SDAIE) and English Language Development (ELD).

Teach single subject area in primary language and English in grades K-12 and provide Specially Designed Academic Instruction in English (SDAIE) and English Language Development (ELD).

* 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, Cultural and Community Trauma Studies (available through Extension only), Developing Gifted Potential, Distance Education, Early Childhood Special Education, Instructional Software Design, Instructional Technology, Mathematics Specialist Reading Certificate, Rehabilitation Administration, Supported Employment and Transition Specialist, Workforce Education and Lifelong Learning.

Research Centers and Institutes

Center for Counseling and School Psychology

Valerie Cook-Morales, Director

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

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.

Center for Equity and Biliteracy Education Research

Alberto M. Ochoa and Alberto Rodriguez, Co-Directors

See *Bulletin of the Graduate Division* for description.

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 education, work, family, and community life. The institute conducts research, training, and education using a variety of strategies including distance

learning technologies. Current efforts include universal design in all aspects of our community. Educational and research efforts involve organizations and individuals in all states, tribal communities, the Pacific Basin, Asia, Mexico, South America, and Europe. Faculty and staff associated with the institute are uniquely prepared to promote the meaningful participation and productivity of each member of the community. The institute's mission is supported through local, state, federal, and international organizations. The institute's facilities are located at 3590 Camino del Rio North in Mission Valley.

Center for Learning, Instruction, and Performance Technologies

Donn C. Ritchie, 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.

Pre-College Institute (PCI)

Cynthia D. Park, Executive Director

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

The institute offers services through five federally funded TRIO programs and partnerships with the Colleges of Science, Engineering, and Health and Human Services, as well as the Division of Undergraduate Studies and the City Heights Pilot Project. The institute's international branch offers exchange opportunities for university faculty and students to visit and study in other countries.

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 and Laura J. Hall, Co-Directors

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

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

College of Engineering

Administration

Dean: David T. Hayhurst

Associate Dean: Gordon K. F. Lee

Assistant Dean for Student Affairs: Bruce D. Westermo

Director of 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 and in bioengineering, a Master of Engineering degree in manufacturing and design, and a doctoral degree in engineering sciences/applied mechanics jointly with the University of California, San Diego.

Consistent with the role and mission of the California State University system, the faculty of the College of Engineering at San Diego State University believes its mission to consist of the following integrated components:

- To provide 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

Engineering Sciences/Applied Mechanics

Master's Degrees

Master of Science (M.S.)

Aerospace Engineering, Bioengineering,
Civil Engineering,
Electrical Engineering, Mechanical Engineering

Master of Engineering (M.Engr.)

Manufacturing and Design

Bachelor's Degrees

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

Minor

Engineering

Certificate Program

Rehabilitation Technology

Research Centers and Institutes

California Institute of Transportation Safety

Janusz C. Supernak, 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: Marilyn Newhoff

Associate Dean: Olita D. Harris

Assistant Dean for Student Affairs: Richard C. Reed

General Information

The College of Health and Human Services offers professional education in the health and human service disciplines. The college consists of the following group of professional areas: the Department of Gerontology, School of Nursing, School of Social Work, School of Speech, Language, and Hearing Sciences, and the Graduate School of Public Health.

The College of Health and Human Services faculty, through advising, teaching, and supervising, offers students a balanced education of academic study, field placement, clinical experiences, and research opportunities. Thus, faculty and students share an understanding of the relationship between California's diverse populations and life styles. The common goal of each of the college's professional programs is to assist students in developing competence in professional practice and research methods 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, Ph.D. in Language and Communicative Disorders and Public Health, and professional doctorate, AuD in Audiology 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

Audiology
Language and Communicative Disorders
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

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

Mario D. Garrett, Director

The Center on Aging is administered by the Department of Gerontology. The center is involved with supporting interdisciplinary educational and curriculum efforts; undertaking research, demonstration and evaluation activities; providing technical assistance and agency consultation for the community; coordinating workshops and seminars; and providing opportunities for student involvement in aging activities. The center serves as a central point for the development, dissemination, and analysis of data related to diversity and aging and long-term care.

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 experiences 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

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

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, Director

The Consensus Organizing Center is administered through the School of Social Work. The center's mission is to educate and train a new generation of social workers in community building techniques in order to make them effective catalysts for civic engagement and social change. Through school based programs and community interventions, the center has created an environment for the teaching of

consensus organizing skills to social workers, high school students, foster youth, and community leaders. Specific activities include developing a fellowship program for high school students and provide employment opportunities for undergraduate and graduate students. The Web site for the center is <http://www-rohan.sdsu.edu/~consensu>. The center telephone number is 619-594-4813.

Heart Institute

Christopher C. Glembotski, Director

The Heart Institute is sponsored by the College of Health and Human Services and the College of Sciences. The goals of the institute are to enhance basic and clinical research in the cardiovascular sciences, to foster undergraduate and graduate education in cardiovascular physiology and medicine, and to provide a community outreach service focused on 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.

International Institute for Health and Human Services Development

Mario D. Garrett, 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

Mario D. Garrett, Director

Administered through the Department of Gerontology, the purpose of the center is to prevent intentional and unintentional injury among all segments of the community and in all age ranges, from birth to old age, but with special emphasis on the elderly. The center accomplishes this purpose by: 1) Coordinating a multidisciplinary group of professionals dedicated to injury control and prevention including

traffic safety; 2) Assisting in the coordination of existing local and state resources for injury intervention and prevention; 3) Conducting ongoing injury data surveillance; 4) Supporting appropriate injury related intervention and prevention strategies aimed at individual and community change; 5) Stimulating injury intervention and prevention based research and program development; 6) Disseminating the results of injury intervention and prevention research activity generated by the center; and 7) Providing technical assistance, training, and continuing education to appropriate target audiences in California and outside of California, as requested. Specifically, the center will identify injury problems and gain extensive community information which will be used to develop strategic plans to control and prevent injuries. In addition, the center will define the changes required to reach desired solutions. A systems approach will be used to address these issues as such an approach also recognizes the comprehensive nature of injury problems and the need to develop equally comprehensive solution sets.

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 <http://www-rohan.sdsu.edu/dept/chhs/nursing/INR.html>.

Institute for Public Health

Robert L. Seidman, Director

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

Social Policy Institute

Terry E. Carrilio, Coordinator

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

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

Center on Substance Abuse

Anita S. Harbert, Director

John D. Clapp, Associate 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. Recent projects of the center included the Community-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 had the goal of reducing alcohol and other drug problems among college students. Other recent research projects included a study of California's publicly-funded 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 training 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 6475 Alvarado Road, Suite 236, 619-594-6859. The DUIP program is located at 9245 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 Special Projects: 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 non-traditional forms of scholarship and research reflecting a demographically changing society through its curriculum, research and outreach activities. Interdisciplinary collaboration is the hallmark of the college's academic programs, research and creative activity that enrich the quality of life, provoke the status quo, enhance understanding of cultural diversity and are at the cutting edge of technology.

Curricula Offered

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

Master's Degrees

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

Bachelor's Degrees

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

Minors

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

Military Curricula

Aerospace Studies, Military Science, Naval Science

Certificate Programs

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

Research Centers and Institutes

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 Research

Robert A. Rauch, CHA, Director

The Center for Hospitality and Tourism Research 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 436, 619-594-4964; <http://www.sdsu.edu/business/htm>.

International Center for Communications

John M. Eger, Director

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

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

Institute for International Security and Conflict Resolution

Alan R. Sweedler and Dipak K. 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.

Center for Optimal Health and Performance

Barbara E. Ainsworth, Director

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

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**

Brian H. Spitzberg, Director

The Dr. Sanford I. Berman Institute for Effective Communication and General Semantics within the School of Communication is dedicated to the scholarly study of language and its relations among our symbolic activities, society, and the mind. Specifically, the institute is devoted to the assessment, investigation, and enhancement of communication processes in applied contexts.

**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 multi-cultural exhibits and performances.



College of Sciences

Administration

Dean: Thomas R. Scott

Associate Dean for Academic Affairs: Patrick J. Papin

Associate Dean for Faculty Affairs: Catherine J. Atkins

Assistant Dean for Student Affairs: Estralita Martin

Director of Development:

General Information

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

Curricula Offered

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

Doctoral Programs

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.), Biomedical Quality Systems (M.S.), Chemistry (M.A., M.S.), Computational Science (M.S.), Computer Science (M.S.), Geological Sciences (M.S.), Mathematics (M.A.), Microbiology (M.S.), Physics (M.A., M.S.), Psychology (M.A., M.S.), Radiological Health Physics (M.S.), Regulatory Affairs (M.S.), Statistics (M.S.).

Bachelor's Degrees

Astronomy (B.S.), Biology (B.A., B.S.), Chemical Physics (B.S.), Chemistry (B.A., B.S.), Computer Science (B.S.), Environmental Sciences (B.S.), Geological Sciences (B.S.), International Security and Conflict Resolution (B.A.; jointly with the College of Arts and Letters and the College of Professional Studies and Fine Arts), Mathematics (B.A., B.S.), Microbiology (B.A., B.S.), Physical Science (B.A.), Physics (B.A., B.S.), Psychology (B.A.), Statistics (B.S.).

Minors

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

Certificate Programs

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

Other Curricula

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

Research Centers and Institutes

Edwin C. Allison Center for 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

Sarah N. Mattson, Associate Director

Teratology is the study of birth defects. The faculty and students at the Center for Behavioral Teratology (CBT) are interested in how prenatal exposure to various drugs influences both brain and behavioral development. Additionally, members of the center engage in research related to the general neurotoxicity of alcohol. The CBT is truly an interdisciplinary research organization, with a broad range of basic and clinical research interests. While the primary purpose of the CBT is to promote research in teratology, personnel in the center also act as a resource to the university and the community. The staff provides in-service talks at local hospitals, schools, and drug treatment facilities, as

well as lectures to various classes at the university. The CBT staff has active collaborations with faculty from UCSD, the VA Hospital, Children's Hospital, and the Scripps Research Institute. Faculty in the center have grants from the National Institutes of Health, Tobacco-Related Disease Research Program, and the State of California.

Coastal and Marine Institute

Richard M. Gersberg, Director

The Coastal and Marine Institute provides a focus for oceanography and marine studies at SDSU. The institute assists departments within the university in the development of instructional, research, and public service aspects of coastal and ocean-oriented programs and provides special supporting services including advising students, assistance to faculty and students in research, preparation of manuscripts, operation of the SDSU Marine Laboratories and boats, and liaison with other institutions and the community. The institute is operated as a special unit of the College of Sciences and is administered by a director and an advisory council committee consisting of faculty members elected from participating departments. Additional information about marine studies is available from the Coastal and Marine Institute office or from the office of the dean of the College of Sciences.

Computational Science Research Center

José E. Castillo, Director

**Andrew L. Cooksy, Paul J. Paolini, and Faramarz Valafar,
Associate Directors**

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

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

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

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

Education Center on Computational Science and Engineering

Kris W. Stewart, Director

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

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

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

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

Center for Energy Studies

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 almost 9,000 acres of San Diego and Riverside county land for university teaching and research.

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

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

The proximity of sensitive habitats to a rapidly urbanizing landscape makes this region a recognized biodiversity "hot spot." San Diego State University has an extremely dynamic group of scientists (faculty, researchers, and students) working to understand these unique and threatened ecosystems. Research ranges from the global scale examining global warming and the impacts of increased carbon dioxide on native vegetation to the meso- and micro-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 non-traditional study in the fields ranging from public health, civil and environmental engineering, recreation, business, and art, to education.

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

Heart Institute

Christopher C. Glembotski, Director

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

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 <http://www.sci.sdsu.edu/salton/>.

Institute for International Security and Conflict Resolution

Alan R. Sweedler and Dipak K. 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, geological sciences, mathematics and statistics, physics, policy studies in language and cross-cultural education, 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 important theoretical and applied problems in mathematics and science education. CRMSE supports faculty in their current research projects and in the preparation of manuscripts for publication and grant proposals for continued research. The center administers the Doctoral Program in Mathematics and Science Education that is offered jointly by SDSU and the University of California, San Diego. It also houses the Professional Development Collaborative to serve area teachers. The center is located at 6475 Alvarado Road, Suite 206, San Diego, CA 92120-5013; telephone 619-594-5090; campus mail code 1862.

Center for Microbial Sciences

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 microbial biology using a variety of experimental approaches. The center also trains scientists to attack important but neglected problems in microbial biology. The close proximity of the Center for Microbial Sciences 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

Anca M. Segall, 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 Department of Biology 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, Chemistry and Biochemistry, and the Graduate

School of Public Health, and participate in the respective Ph.D. programs. Associate members are drawn from a variety of disciplines that are cognate with the molecular biological sciences. The institute is also constituted as the university unit authorized to administer the master's degree program with an emphasis in molecular biology. The research programs of the MBI members are supported by a variety of agencies including the National Institutes of Health, the National Science Foundation, NASA, the American Heart Association, the American Diabetes Association, the Muscular Dystrophy Association, the Department of Energy, the US Department of Agriculture, and the California Metabolic Research Foundation. Additional information is available from the MBI office; 619-594-7429.

NExTWORK

William A. Root, Director

SDSU's Nexus for Technology Workforce Education – NExTWORK – functions as an incubator for new programs designed to help the university respond more nimbly to San Diego's technology workforce needs. Nextwork seeks to invent, implement, and promote new programs at the department and college levels that will help the university to identify, and to incorporate into our curricula promptly, those emerging technologies and technology skills that are critical to the regional workforce. Nextwork's goal is to insure that the number of SDSU technology graduates, and the skills they possess upon graduation, keep pace with local industry demand. 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 multi-semester sequences including product-specific case-studies that provide excellent preparation for industry-standard certification exams.
- Nextwork's on-campus internships program provides a broad spectrum of relevant technology-oriented internships entirely within, and supporting, SDSU itself.
- Technology Training Partnerships with major commercial technology training providers offer SDSU students and faculty access to training in new technology areas in which SDSU has no current faculty presence.
- Nextwork 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. For further information, call the Nextwork office at 619-286-8715 or 619-994-8715.

Imperial Valley Campus

Administration

Dean: Stephen B. W. Roeder

Associate Dean for Academic Affairs: Stephen A. McNett

Interim Assistant Dean for Student Affairs: Miguel Rahiotis

Director of Financial and Business Services: Irma Martinez

Director of Advancement: John Renison

Faculty

Emeritus: Ayala, Baldwin, Ballesteros, Fatemi, Harmon, Hill, King, Merino, Polich, Spencer, Varela-Ibarra

Professors: Dunn, Elizondo, Medeiros, Neumann, Reyes, Roeder, Ryan, Shumaker

Associate Professors: Amaral, Castañeda, Champion, Coates, Garrison, Sabbath, Stampfl

Assistant Professors: Herrera, Itzá, King, Mendez, Perner, Ponce, Ramirez-Pimienta, Verzi, West

Lecturers: Cook, Fuentes, Livingston, McNett, Murphy

General Information

The Imperial Valley Campus is a branch campus of San Diego State University serving the desert area of southeastern California. It is accredited as an integral division of SDSU and operates under the same academic calendar. Established in 1959 by an act of the State legislature, the campus has two locations in the Imperial Valley: Calexico and Brawley. Offering the last two years of undergraduate education, graduate programs, and fifth year credential programs for teacher preparation, the campus accepts students who have at least 56 transferable units from community colleges or other accredited institutions. The Imperial Valley Campus offers students the advantages of smaller classes and individual contact with the faculty. The Imperial Valley Campus faculty are multinational in their classroom orientation and background. Interactive television provides students in Calexico the opportunity to participate in various classes broadcast live from the campus in San Diego. The Imperial Valley Campus schedules its classes to meet once a week in three-hour blocks so that students who work full time can earn 9-12 units a semester by attending classes once or twice a week. Occasional classes are also offered on the weekends.

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

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

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

Curricula Offered

Undergraduate Degrees

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

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

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

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

Major in international business (Latin America and North America emphases), with the B.A. degree in liberal arts and sciences.

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

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

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

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

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

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

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

Minor in English.

Minor in history.

Minor in linguistics.

Minor in mathematics.

Minor in political science.

Minor in psychology.

Minor in public administration.

Minor in small business management.

Minor in Spanish.

Graduate Degrees

Master of Arts degree in Education

Concentration in Educational Leadership

Concentration in Elementary Curriculum and Instruction

Concentration in Secondary Curriculum and Instruction

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

Master of Public Administration

Master of Science degree in Business Administration

Concentration in International Business

Certificate Programs

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

Teaching Credentials

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

(BCLAD) emphasis: Spanish, Single Subject

Specialist: Administrative Services

Special Education

(Both in conjunction with the College of Education)

For further information on any of these degrees, see the SDSU – Imperial Valley Campus Bulletin.

Exchange Programs and Study Abroad

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

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

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

Research Center

California Center for Border and Regional Economic Studies (CCBRES)

The California Center for Border and Regional Economic Studies (CCBRES) specializes in research on the Imperial Valley and U.S.-Mexican border region. The center collects and compiles statistics on economic, demographic, social, environmental, and trade indicators on the Imperial County, Mexicali and the binational region and publishes a monthly bulletin of in-house and sponsored analyses of the issues in the region. CCBRES also hosts conferences and workshops on border issues, ranging from trade and economics to environmental and educational issues. The center's vision is to create a resource for the Imperial Valley, California-Baja California, Mexico border residents, and individuals interested in issues surrounding the U.S. Mexican border.

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.

Facilities

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

The library, located at the Calexico site, is designed to facilitate research and to provide a pleasant atmosphere for study. The collection is expanding and has more than 110,000 volumes, periodicals, and newspapers which support the curricula offered on the Imperial Valley Campus. Services provided include reference assistance, CD ROM

databases, personal computers for word processing, full text database, Internet access, interlibrary loans, and photocopying facilities.

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

Transfer Center

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

Admission and Registration

To apply for admission to the Imperial Valley Campus, students must file a complete application and transcripts as outlined elsewhere in this catalog. Both completed application forms and transcripts should be sent to the Admissions Office, San Diego State University, Imperial Valley Campus, 720 Heber Avenue, Calexico, California 92231. Please telephone 760-768-5667 for further information. Students can register on the Internet using Webline, 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 \$41,034 in scholarships for the 2003-2004 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
El Centro Rotary
General Dynamics Land Systems of Imperial Valley
HACU
Lilly Endowment Inc./Hispanic Scholarship Fund
Mr. and Mrs. Bernard Lipinsky
National Hispanic
Joe Patino Family
PEO Sisterhood Chapter BS
Rotary International District #5340
Scholarship Aid Association for Lutherans, The Adult Degree Completion
SDSU-IV International Programs
Tzu-Chi Foundation

Endowments:

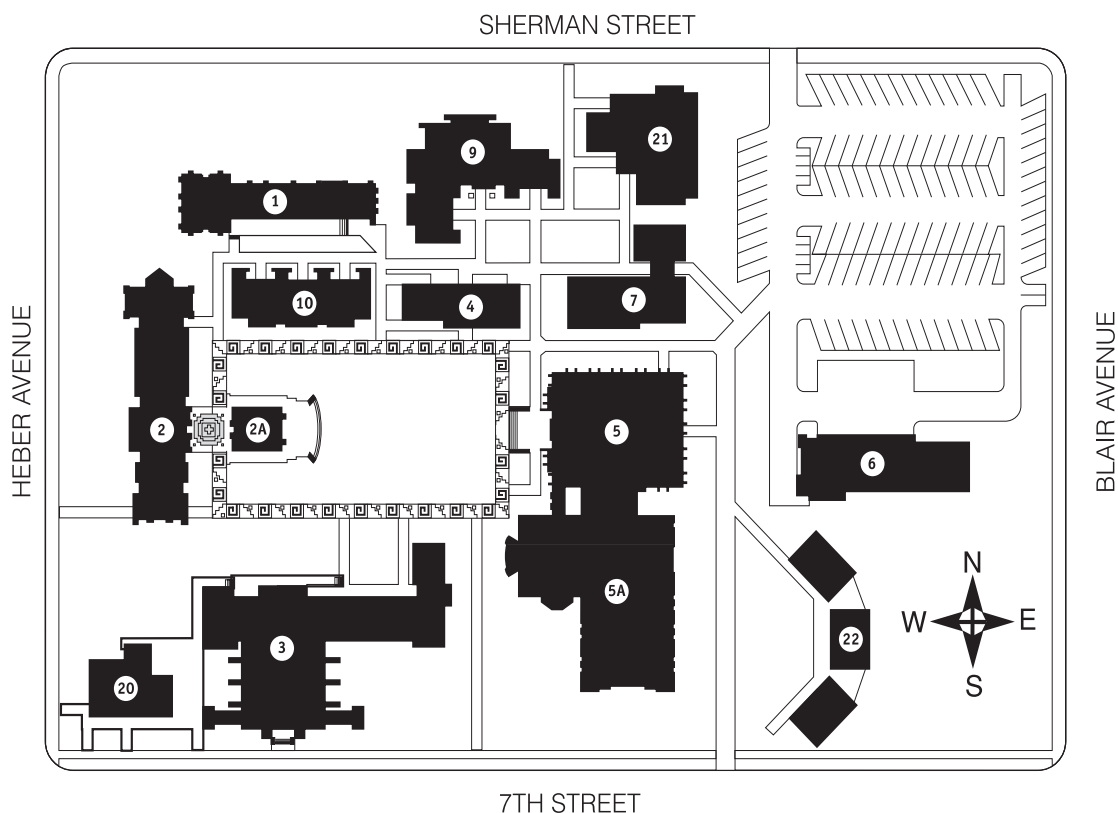
Anheuser-Busch Companies, Inc.
William and Susan Brandt
Enrique (Kiki) Camarena
Francis and Edna Rae Frye
Jack Hart Family
Good Sport Howie
Herschel Hudson
Nancy A. Marlin
Sally McMahon/Doves

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

Commencement

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

Imperial Valley Campus – Calexico Campus Map



SDSU IVC Campus – Calexico
720 Heber Avenue
Calexico, CA 92231
760-768-5500

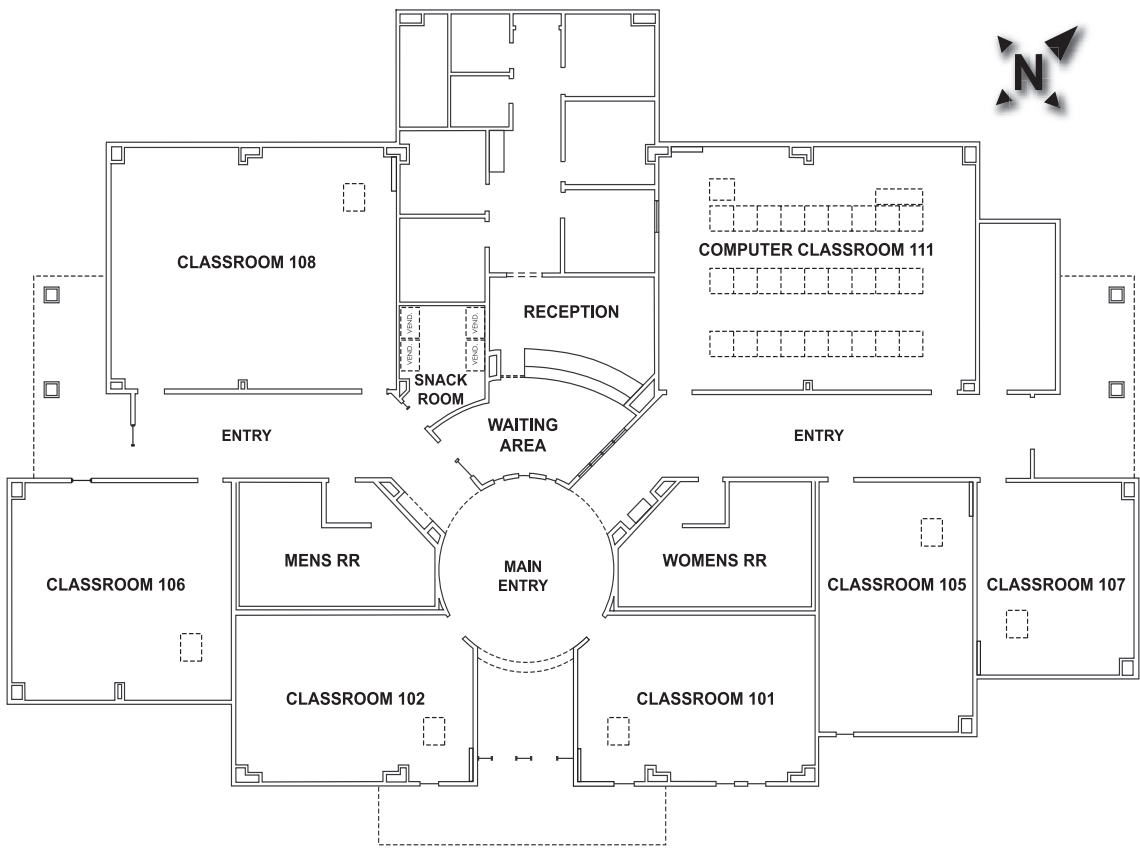
BUILDING LEGEND

- 1. North Classroom Building
(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

Imperial Valley Campus – Brawley Campus Map



SDSU IVC Campus – Brawley
560 East Highway 78
Brawley, CA 92227
760-351-0806

Division of Undergraduate Studies

OFFICE: Administration 101

TELEPHONE: 619-594-5841

FAX: 619-594-7934

Administration

Dean: Geoffrey W. Chase

Associate Dean: Patricia Patterson

Assistant Dean: Bonnie M. Anderson

General Information

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

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

- Center for Teaching and Learning
- College Readiness Programs
- Faculty-Student Mentoring Program
- Information and Communication Technology Program
- Interdisciplinary Studies in Three Departments
- Liberal Studies
- Thomas B. Day Freshman Success Programs
- University Honors Program

The division is also responsible for several university-wide mandates. It provides coordination and evaluation of the undergraduate programs at San Diego State University and has general responsibility for the undergraduate curriculum and for academic standards and regulations that affect undergraduate education. Additionally, it coordinates the Western Association of Schools and Colleges (WASC) reaccreditation process, the assessment of student preparedness in writing and mathematics at the freshman and transfer levels, the assessment of student learning, and of the Graduation Writing Assessment Requirement.

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-101, 619-594-2872. Eligibility at entrance is determined by an SAT score of approximately 1250 or above (ACT 28), or a high school GPA of 3.7,

including successful completion of advanced high school courses; later eligibility is determined by a superior GPA at this university and is subject to space limitations. Transfer agreements exist with a number of community college honors programs. For additional information consult the Web site at <http://www.sdsu.edu/honors>.

Departmental Honors Courses

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

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.

Center for Teaching and Learning

Brock S. Allen, Director

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.

Information and Communication Technology Program

Catherine J. Atkins, Director

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

All students, regardless of major, should graduate from SDSU with the ability to apply a principled understanding of diverse disciplines to identify opportunities and goals, to define and solve problems, to

communicate constructively with diverse populations around the globe, to make wise use of technology, to integrate information from multiple sources and perspectives, and to make responsible and humane decisions.

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

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

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

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

Living/Learning Community. The LLC at Maya and Olmeca is a residential option in which first-year students live together. Students choosing this option are enrolled in a LINC package related to their academic focus. This program is especially beneficial for undeclared students or those students who are uncertain about their chosen major. In the LLC students take advantage of special advising, workshops, and academic support services. They also enjoy comfortable living accommodations including a computer lab, study lounge, and on-site classrooms, all designed to foster a community among peers and a connection to the campus. Visit <http://www.sdsu.edu/housing> to learn more about this housing option or contact the Thomas B. Day Freshman Success Programs at 619-594-3212 or <http://www.sdsu.edu/freshmansuccess>.

Faculty-Student Mentoring Program

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

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

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

For more information about the mentoring program, visit our Web site at <http://www.rohan.sdsu.edu/~mentor/>, call 619-594-0474, or e-mail mentor@rohan.sdsu.edu.

Graduate Division

OFFICE: Centennial Hall 3320

TELEPHONE: 619-594-5213

FAX: 619-594-0189

E-MAIL: 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 and a professional doctorate (Au.D.) degree are awarded jointly by the board of regents of the University of California and the board of trustees of The California State University in the names of San Diego State University and the cooperating campus of the University of California; in Education, jointly by the board of trustees of The California State University and the board of fellows of Claremont Graduate University. The Doctor of Education degree (Ed.D.) is awarded jointly by the board of trustees of The California State University and the trustees of the University of San Diego in the names of San Diego State University and the University of San Diego.

Doctor of Philosophy

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

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

Doctor of Education

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

Educational Leadership
Educational Technology
Teaching and Learning

Professional Doctorate

The professional doctorate degree is offered in the following field:

Audiology

Educational Specialist

Ed.S. in School Psychology

Master's Degrees

Master of Business Administration
Master of City Planning
Master of Engineering
Master of Music
Master of Public Administration
Master of Public Health
Master of Social Work

Master of Fine Arts

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

Art
Creative Writing
Theatre Arts

Master of Arts

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

Anthropology	English	Physics
Art	French	Political Science
Asian Studies	Geography	Psychology
Biology	History	Rhetoric and Writing
Chemistry	Interdisciplinary Studies	Studies
Chicana and Chicano Studies	Kinesiology	Sociology
Communication	Latin American Studies	Spanish
Communicative Disorders	Liberal Arts and Sciences	Television, Film and New Media Production
Economics	Linguistics	Theatre Arts
Education	Mathematics	Women's Studies
	Music	
	Philosophy	

Master of Science

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

Accountancy	Computational Science	Mechanical Engineering
Aerospace Engineering	Computer Science	Microbiology
Applied Mathematics	Counseling	Nursing
Astronomy	Criminal Justice and Criminology	Nutritional Sciences
Bioengineering	Electrical Engineering	Physics
Biology	Exercise Physiology	Psychology
Biomedical Quality Systems	Geography	Public Health
Business Administration	Geological Sciences	Radiological Health
Chemistry	Gerontology	Physics
Child Development	Interdisciplinary Studies	Regulatory Affairs
Civil Engineering		Rehabilitation Counseling
		Statistics

Concurrent Degrees

Concurrent degrees are offered in the following fields:

Master of Business Administration and Juris Doctor
Master of Business Administration and Master of Arts in Latin American Studies
Master of Public Health and Master of Social Work
Master of 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 any type of graduate or postbaccalaureate status (advanced degree applicants and those seeking credentials or advanced certificates) must file an electronic CSU Graduate Admission Application with Graduate Admissions within the appropriate filing period. Applicants may apply to only one graduate or postbaccalaureate program. 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. Students are required to apply online. Online applications are available at <http://www.csumentor.edu/AdmissionApp/>. Paper applications are no longer printed for general distribution. If an applicant does not have access to a computer or in the case of other extenuating circumstances preventing an applicant from filing an electronic admission application, the applicant may file a paper admission application available for downloading on the California State University Web site at <http://www.csumentor.edu/AdmissionApp/>.

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 2.85 (when A equals 4) in the last 60 semester (90 quarter) units attempted (this calculation may not include lower division courses taken after award of a baccalaureate degree); and (c) have been in good standing at the last institution attended. Applicants who do not qualify for admission under provisions (a) and (b) may be admitted by special action if the graduate dean determines that there is other academic or professional evidence sufficient to warrant such action. **The 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 in accordance with Graduate Division policies.

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 (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:

- 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.)
- Have completed an undergraduate major appropriate to the field in which the prospective student desires to earn an advanced degree.
- Satisfy the special departmental or college requirements as stated in Part Three of the *Bulletin of the Graduate Division* under "Courses and Curricula."
- 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 normally all course conditions must normally be met within one academic year from the time of initial enrollment. Students admitted with conditional graduate standing (classified) are admitted to authorized advanced degree curricula and may enroll in 600- and 700-numbered courses. Once the conditions established by the department, school, or college have been met, the student should request that the program graduate adviser file a change of status form with the 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 hold undergraduate degrees who wish to take courses for professional schools may do so through Open University in the College of Extended Studies.

Prelegal Curriculum

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

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

The following courses of study are recommended. Lower division: Accountancy 220 and 230, Economics 101 and 102, Political Science 101 and 102, and a year course in history. Upper division: In the junior and senior years students will plan their course with the counsel of their adviser in terms of the field of law in which they plan to work, but keeping in mind the entrance requirements and examinations for admission to schools of law. The following list should receive prime consideration by all prelegal students in the selection of courses, though it is to be thought of as flexible in accordance with student needs. Economics 338; History 545; Political Science 301A-301B, 346, 347A-347B. Additional: Economics 380, History 536, Political Science 348.

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

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

Preprofessional Health Advising Office

The preprofessional health advising office is responsible for advising premedical, predental, preveterinary, and allied health students in their preparation for and application to the professional schools of their choice. This office works in conjunction with the candidate's major department to establish a degree program coordinated with the preprofessional requirements of the professional schools. It is the communication link between the student and the profession, keeping the student apprised of changes in the requirements and procedures for acceptance. The preprofessional health advising office provides the university-sanctioned SDSU committee letter. The advising office is located in GMCS 323; 619-594-6638; <http://www.sci.sdsu.edu/preprof/>.

Predental Curriculum

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

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

Admission. Predental students must realize that the pool of dental applicants has recently increased and the competition for admission to schools of dentistry, particularly at University of California, Los Angeles and University of California, San Francisco, is great. 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; <http://www.sci.sdsu.edu/preprof/>.**

Premedical Curriculum

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

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

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

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

Nearly all medical schools also require applicants to take the MCAT, 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; **619-594-6638, <http://www.sci.sdsu.edu/preprof/>.**

Preveterinary Curriculum

The preveterinary program is pursued in conjunction with a degree program. Students ordinarily elect to major in biology. Other departmental majors are permissible, however. **Preveterinary students should meet each semester with their major departmental academic adviser to obtain approval for their program for the coming semester. In addition, preveterinary students should confer with the preveterinary adviser at least once each semester to discuss other preparation for veterinary medicine school.**

College preparation. High school students planning to enter veterinary medicine should include in their high school program the 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 SDSU Bookstore.

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

Allied Health Professions

The allied health professions served by the Preprofessional Health Advising (PPHA) Office include chiropractic medicine, dental hygiene, optometry, pharmacy, physician assistant, 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. (<http://www.apta.org>).

Students are reminded that requirements for admission to physical therapy school are varied. Therefore, the student should consult the above sources and the school(s) of choice at least two years prior to expected application. Students should expect to fulfill the following general requirements for admission: (1) specific course requirements as outlined above, (2) volunteer experience in a hospital or clinical physical therapy program, and (3) satisfactory completion of the GRE examination.

Preparation for Other Professions

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

Certificate Programs

Basic Certificate

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

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

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

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

Advanced Certificate – Postbaccalaureate

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

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 meet the standards of quality that the institution sets for its other programs and courses, with regard to resources, faculty, level of instruction, evaluation, and support services.

The College of Extended Studies at San Diego State University serves as the principal university liaison with the adult community and provides a wide variety of traditional and nontraditional, credit and noncredit, educational experiences designed to fit the life style and expectations of lifelong learners. In addition, it provides a range of academic and special programs for students and groups during the summer months, in the evenings, and between semesters. Under the direction of the dean of the college, programs are developed and carried out within the divisions of Extension, Professional Development, American Language Institute, and Administrative Services. The programs are operated on a self-support basis since state funds are not provided for Continuing Education activities.

Limitations on Open University and Special Sessions Credit

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

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

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

Open University

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

through Open University, Extension, and credit-by-examination combined may be used toward total units required for the bachelor's degree.

Open University classes may not be taken by the following:

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

American Language Institute (ALI)

The American Language Institute offers noncredit intensive (20-25 hours per week) English programs throughout the year to students and professionals interested in improving their English proficiency. By enrolling in the ALI, students may take advantage of a program called conditional acceptance. Conditional acceptance is available to those students who require admission, or proof of eligibility for admission, to a university in order to obtain a passport, a U.S. Visa, or government sponsorship. It is offered to students who do not have an adequate command of English or the required TOEFL (Test of English as a Foreign Language) score to qualify for admission to the university. Students successfully completing ALI's English for Academic Purposes program with positive ALI recommendations can waive the TOEFL requirements for graduate programs at SDSU as well as several other partner colleges.

Programs offered by ALI are as follows:

English for Academic Purposes

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

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

Intensive English Communications

A 3- to 19-week course emphasizing oral skills and cultural experiences. Classes include eight hours of oral communication in addition to 12 hours of reading, writing, structure, and listening per week. Elective courses are offered, and directed activities at SDSU and in the community provide experiences for language use. Regular field trips to places of educational and recreational interest are an integral part of the program.

Specific Purposes Programs

Programs for students and professionals with specific needs, including Management and Business English; Business Seminar for International Executives; American TEFL (Teaching English as a Foreign Language); Seminar for International Teachers of English; Certificate in Business Program; and Pre-MBA Preparation; are offered.

Summer Special Programs

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

Services

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

Information about and applications for the ALI can be obtained from the director, American Language Institute. The Web site address is <http://www.americanlanguage.org>.

Osher Lifelong Learning Institute

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

Travel Study Programs

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

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

Certificate Programs

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

Extension

In order to meet the needs of the adult community as well as matriculated students, the college provides a variety of extension courses, workshops, and Open University programs. For the convenience of adult students most courses are scheduled in the evenings or on weekends, on campus or at convenient learning extension centers throughout the service area.

Extension Courses

Extension courses are offered each semester in a number of areas including education, business administration, public administration, and the arts and sciences. Many courses and programs are developed in cooperation with off-campus organizations and groups who

have identified specific needs. Many extension courses are now offered on-line. For information on these courses visit the Web site at <http://www.neverstoplearning.net>. Some one-unit weekend workshops are also offered throughout the year. These courses are listed in a special Extended Studies Catalog published three times a year.

There is no limit on the total number of extension units for which a student may enroll; however, the maximum extension credit which may be used toward SDSU bachelor's degree requirements is 24 units. Courses offered through Extension that are not offered on campus or are not required in a student's program of study will appear on the SDSU transcript but are not transferable for graduate credit. Graduate students who enroll in these courses normally do so for personal enrichment only.

Professional Development

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

Custom On-Site Training

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

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

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

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

Professional Development 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 such as leadership, finance, project management, and managing teams. 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, lean six sigma, and customer service issues related to global competitiveness. In addition, more than 30 evening certificate programs are offered in specific functional or industry areas, such as human resources, meeting and events planning, casino gaming, and contract management.

Admission and Registration

Admission criteria listed in this catalog is for fall 2005. For the most up-to-date admission criteria, visit the SDSU Web site at <http://www.sdsu.edu/admissions>.

Reservation

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

Undergraduate Admission Policy

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

Undergraduate Application Filing Period

Fall Semester

October 1 - November 30

Undergraduate Application Procedures

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

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

Application Acknowledgment

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

Supplementary Admission Criteria

Each campus with impacted programs uses supplementary admission criteria in screening applicants. Supplementary criteria may include ranking on the freshman eligibility index, the overall transfer grade point average, completion of specified prerequisite courses, and a combination of campus-developed criteria. First-time freshman should take the SAT 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*.

Undergraduate Admission Requirements

First-Time Freshman Requirements

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

1. Complete the pattern of college preparatory subjects requirements with grades of C or higher. See "Subject Requirements."
2. Must submit SAT I or ACT test scores (regardless of high school grade point average).
3. Must be a high school graduate.
4. SDSU service area applicants who meet the minimum CSU eligibility index (see "Eligibility Index") of 2900 and fulfill the Entry-Level Mathematics (ELM) and English Placement Test (EPT) requirements will be admitted to SDSU.
5. 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 <http://www.sdsu.edu/dualadmission>.

Outside SDSU Service Area.

1. Complete the pattern of college preparatory subjects requirements with grades of C or higher. See "Subject Requirements."
2. Must submit SAT I or ACT test scores (regardless of high school grade point average).
3. Must be a high school graduate.
4. Have a competitive CSU eligibility index (see "Eligibility Index"). The average eligibility index of admitted freshmen for fall 2004 was 4,077 (983 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 Office of Student Testing, Assessment and Research. Or, you may write to or call:

The College Board (SAT I)
Registration Unit, Box 6200
Princeton, New Jersey 08541-6200
609-771-7600
<http://www.collegeboard.org>

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

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

Eligibility Index

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

Up to eight semesters of honors courses taken in the last two years of high school, including up to two approved courses taken in the 10th grade, can be accepted. Each unit of A in an honors course will receive a total of 5 points; B, 4 points; and C, 3 points. No honor points are given for D or F grades.

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

Subject Requirements

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

1. Two years of social science, including one year of U.S. history, or U.S. history and government.
2. Four years of English.
3. Three years of mathematics (algebra, geometry, and intermediate algebra).
4. Two years of laboratory science (one biological and one physical, both with laboratories).
5. Two years in the same foreign language (subject to waiver for applicants demonstrating equivalent competence).
6. One year of visual and performing arts (must be from a single VPA area): art, dance, drama/theatre, or music. (Must be a year-long course for fall 2006 admission.)
7. One year of electives, selected from English, advanced mathematics, social science, history, laboratory science, foreign language, visual and performing arts.

For fall admission, you must complete your subject requirements by the spring term before enrollment at SDSU.

Subject Requirement Substitution for Students with Disabilities

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

Freshmen Who are Graduates of High Schools in Foreign Countries

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

All undergraduate applicants, regardless of citizenship, who do not have at least three years of full-time study in schools at the secondary level or above where English is the principal language of instruction, must present a score of 550 or higher (using the paper version) or 213 or higher (using the computer version) 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 specific course and does not constitute the right to continued enrollment.

Transfer Student Requirements

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

Lower Division Transfers

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

Upper Division Transfers

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

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

1. Apply during the CSU initial admission application filing period, October/November 2004 for fall 2005 admission. Submit a supplemental application at <http://www.sdsu.edu/portal> between December 15, 2004 and January 15, 2005.
2. Complete a minimum of 60 transferable semester units by the end of spring 2005.
3. Complete all lower-division General Education (GE) by the end of spring 2005. GE requirements in written communication, oral communication, critical thinking, and mathematics must be completed with a "C" or higher in each course.
4. By the end of spring 2005, complete all Preparation for the Major courses that are articulated or approved as equivalent (see online Transfer Admission Planner) and offered at the college(s) attended in the year prior to transfer. Some impacted majors have specific grade expectations for individual courses or combination of courses that must be met. If the Preparation for the Major courses in combination with the 39 units of GE exceed 60 units, students are only required to complete 24 units of Preparation for the Major courses.

5. GPA Requirements:

- Service area* and outside-the-service-area applicants must meet the GPA required for the impacted major. Non-impacted majors require a 2.0.
- Outside-the-service-area applicants will also be selected based on a GPA ranking that may be higher than the impacted major GPA. For fall 2004, the average transfer GPA was 3.14.
- Applicants must meet the required GPA at the time of application and they must maintain the GPA through the end of spring 2005.

* You are in SDSU's service area if 50% of your coursework has been completed at one of the following campuses: Cuyamaca College, Grossmont College, Imperial Valley College, San Diego Miramar College, San Diego City College, San Diego Mesa College, Southwestern College.

NOTE:

- Transfer students who are admitted to a premajor or major must petition if they decide to request a change of major after enrollment at SDSU.
- Music and dance major applicants must audition for acceptance to the major.
- SDSU is not accepting applications for second bachelor candidates.
- There is an additional application and additional ranking criteria for nursing applicants.

Special Provisions for Transfer Applicants from MiraCosta and Palomar Colleges

Transfer applicants from MiraCosta and Palomar Colleges who wish to transfer to SDSU in a major that is not offered at CSU San Marcos will be held to the admission requirements for service-area applicants. At least 50% of your coursework must be completed at MiraCosta or Palomar colleges.

Admitted Upper Division Transfers

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

Acceptance of Transfer Courses

Courses taken at a regionally accredited college or university and designated as appropriate for baccalaureate credit by that institution will be accepted by San Diego State University for credit toward transfer admission. San Diego State University reserves the right to determine the extent to which such credit satisfies the specific and elective requirements of degree programs.

Courses completed at regionally accredited institutions not offering the baccalaureate and at special-purpose baccalaureate-granting institutions are acceptable if specifically certified by the institution or by San Diego State University as similar in level and rigor to SDSU courses.

Courses completed at institutions without regional accreditation or taken at a regionally accredited institution as part of a professional program, i.e., medical, dental, legal, veterinary, optical, etc. are not normally accepted by San Diego State University. Such courses may be accepted on an individual basis if a review by the appropriate department determines comparability to a course in the San Diego State University curriculum.

Adult Students

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

- Possesses a high school diploma (or has established equivalence through either the Tests of General Educational Development or the California High School Proficiency Examination).
- 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.
- 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.
- 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 and mathematical computation.

Readmission

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

International (Foreign) Student Admission Requirements

San Diego State University offers opportunities for graduate and undergraduate study to those foreign students whose academic preparation meets the standards for admission. "Foreign students" include those who hold US visas as students, exchange visitors, or in other 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 for undergraduate admissions must be received by the Office of Admissions no later than May 1 for the fall semester. If certificates and transcripts are not in English, they should be accompanied by certified English translations. Credentials will be evaluated in accordance with the general regulations governing admission to San Diego State University.

Applicants whose major education has been in a language other than English must score 550 or higher (using the paper version) or 213 or higher (using the computer version) 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 English instruction is needed prior to admission to San Diego State University, students may enroll in the American Language Institute. The American Language Institute (ALI) offers preparation in the English language reading, writing, and listening skills necessary for university success. For those students enrolling in the American Language Institute, a conditional admission 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 Office of Housing Administration, San Diego State University. Scholarship aid for entering students is limited; no scholarships are specifically reserved for students from another country. Further information regarding scholarships will be found in the section of this catalog on Financial Aid and Scholarships.

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

TOEFL 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. Some campuses may also use alternative methods of assessing English fluency.

Filing of Documents

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

Other Applicants

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

San Diego State University also offers a special program designed to expand educational opportunity for capable persons who, for a variety of reasons, have not previously had the opportunity. For detailed information regarding admission to this program, refer to the section of this catalog on the Educational Opportunity Program.

Filing of Records

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

1. Transcripts from all high schools attended (not required of the graduate student who holds a bachelor's degree from an accredited institution, but is required of the student who holds a bachelor's degree from a nonaccredited institution).
2. Transcripts from EACH college attended (including extension, correspondence, summer session, or evening courses), even if no courses were completed. Graduate students must file transcripts *in duplicate* if they plan to enter a master's degree or credential program.
3. Photostat or true copy of the military separation form DD-214 (or equivalent) if applicant has had active military service. (Not required of graduate students.)

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

Deadlines:

First-time Freshmen

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

Transfers

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

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

Graduate and Postbaccalaureate Application Procedures

All graduate and postbaccalaureate applicants (e.g., joint Ph.D., Ed.D., Au.D., and Ed.S. applicants, master's degree applicants, those seeking credentials, or advanced certificates) must file a complete graduate application as described in the CSU graduate and post-baccalaureate admission materials at <http://www.csumentor.edu>. Applicants who completed undergraduate degree requirements and graduated the preceding term are also required to complete and submit an application and the \$55 nonrefundable application fee. To be assured of initial consideration by more than one campus, it will be necessary to submit separate applications (including fees) to each. 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 <http://www.csumentor.edu>. Applications submitted by way of <http://www.csumentor.edu> are preferable.

Graduate and Postbaccalaureate Admission Requirements

Admission Requirements

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

General Requirements

The minimum requirements for admission to graduate and postbaccalaureate studies at a California State University campus are in accordance with university regulations as well as Title 5, chapter 1, subchapter 3, of the *California Code of Regulations*. Specifically, a

student shall at the time of enrollment: (1) have completed a four-year college course of study and hold an acceptable baccalaureate degree from an institution accredited by a regional accrediting association, or shall have completed equivalent academic preparation as determined by appropriate campus authorities; (2) be in good academic standing at the last college or university attended; (3) have attained a grade point average of at least 2.85 (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 three following categories (consult the *Bulletin of the Graduate Division* for detailed information):

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

Intersystem Cross Enrollment

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

Impacted Programs

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

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

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

The following majors are impacted at San Diego State University:

Art with emphases in Art History, Studio Arts; Art with emphases in Applied Design, Graphic Design, Interior Design, Multimedia, Painting and Printmaking, Sculpture; Biology and Microbiology; Business Administration; Child Development; Communication with emphases in Advertising, Public Relations, and General Communication; Criminal Justice Administration; Economics; English and English in Preparation for the Single Subject Teaching Credential in English Language Arts; Foods and Nutrition; Health Science 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 including identification for purposes of financial aid eligibility and disbursement and the repayment of financial aid and other debts payable to the institution. Also, the Internal Revenue Service requires the university to file information returns that include the student's social security number and other information such as the amount paid for qualified tuition, related expenses, and interest on educational loans. This information is used by the IRS to help determine whether a student, or a person claiming a student as a dependent, may take a credit or deduction to reduce federal income taxes.

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

Registration and Requirements for Registration

Registration

San Diego State University students register online at <http://www.sdsu.edu/portal>. On-campus and telephone registration are not conducted. The *Class Schedule* available at <http://www.sdsu.edu/schedule> contains specific information on registration, the courses offered for the term, and a listing of the fees required for enrollment. Students will not be permitted to register until fees are paid. Payment of fees by itself does not constitute registration. A student is considered registered when: 1) fees have been paid, and 2) at least one course has been added prior to the first day of classes.

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

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

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

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

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

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

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

Improper Registration in Graduate Courses. Only undergraduate students who are completing their bachelor's degree and who have filed a formal request for permission to enroll for concurrent master's degree credit or for concurrent postbaccalaureate credit may be authorized to enroll in 600 and higher numbered courses. Undergraduate students who have not received permission for concurrent enrollment may not enroll in 600 or higher numbered courses for any purpose without prior permission of the graduate dean. Undergraduates who enroll in advanced courses without permission are subject to administrative

disenrollment. The registration for graduate students who have not met the stated prerequisites for Course 799A, Thesis, at the time of registration may be canceled.

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

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

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

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

Statewide Placement Test Requirements

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

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

- Students must place (score) in the "exempt" category on the Early Assessment of Readiness for College English taken in conjunction with the 11th grade California Standards Test in English Language Arts.
- A score of 550 or above on the verbal section of the College Board SAT 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:

- Students must place (score) in the **“unconditionally exempt”** category on the Early Assessment of Readiness for College Mathematics taken in conjunction with the 11th grade California Standards Test in High School Mathematics or Algebra II.
- Students must place (score) in the **“conditionally exempt”** category on the Early Assessment of Readiness for College Mathematics taken in conjunction with the 11th grade California Standards Test in High School Mathematics or Algebra II **PLUS** successful completion of a CSU-approved mathematics or mathematics-related course or activity taken before you enroll at a CSU campus.
- 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.

Determination of Residence for Nonresident Tuition Purposes

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

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

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

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

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

Exceptions to the general residence requirements are contained in *California Education Code* sections 68070-68084 and *California Code of Regulations*, Title 5, Subchapter 5, Article 4, sections 41906-41906.5, and include, but are not limited to, members of the military and their dependents, certain credentialed employees of school districts, and most students who have attended three years of high school in California and graduated or attained the equivalent. Whether an exception applies to a particular student cannot be determined before the submission of an application for admission and, as necessary, additional supporting documentation. Because neither campus nor chancellor's office staff may give advice on the application of these laws, applicants are strongly urged to review the material for themselves and consult with a legal adviser.

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

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

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

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

The Office of General Counsel can either decide the appeal or send the matter back to the campus for further review.

Students incorrectly classified as residents or incorrectly granted an exception from nonresident tuition are subject to reclassification as nonresidents and payment of nonresident tuition in arrears. If incorrect classification results from false or concealed facts, the student is subject to discipline pursuant to Section 41301 of Title 5 of the *California Code of Regulations*.

Resident students who become nonresidents, or who no longer meet the criteria for an exception, must immediately notify the Office of 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 advance notice by the Board of Trustees of the California State University.

Registration fees reflected in this catalog were approved by the Board of Trustees at their October 28, 2004 meeting, but are subject to change, without advance notice, if such action is required by the budget act approved for 2005-2006. For updated information regarding the fee structure for 2005-2006 refer to the fall *Class Schedule* Web site at <http://www.sdsu.edu/schedule.html> or University Cashiers Office at <http://www.sdsu.edu/cashiers>.

Fees must be paid prior to accessing the Web Portal to register. Checks are accepted for the exact amount of fees. Overpayments of \$5.00 or less are refunded only upon request. If your check for registration fees or tuition is returned by the bank for any reason, your registration may be canceled and you will be billed \$55.00 (a dishonored payment charge of \$35.00 and late fee of \$20.00). Payment of fees for registration should be made by check or money order. The university reserves the right to refuse payment by personal check from those individuals who have previously had items returned unpaid by their bank. Refunds may be applied against other amounts due to the university. Checks to be made payable to SDSU. Do not enclose cash.

You may pay your fees online using your checking account information. There is no additional fee assessed for this service. Visit the Cashiers Office Web site at <http://www.sdsu.edu/cashiers> and See On Line Services.

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

ADMINISTRATIVE/FINANCIAL HOLDS

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

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

REGISTRATION FEES – ALL STUDENTS:

(On basis of units carried.)

Fee payment information and instructions are in the *Class Schedule* available at <http://www.sdsu.edu/schedule.html>.

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

<i>Units Attempted</i>	<i>Registration Fee</i>
Undergraduate	
0 units – 6.0 units.....	\$1,033.00
6.1 or more units.....	\$1,561.00
Graduate	
0 units – 6.0 units.....	\$1,201.00
6.1 or more units.....	\$1,852.00
Teaching Credential Candidates	
0 units – 6.0 units.....	\$1,150.00
6.1 or more units.....	\$1,762.00

The above fee 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 \$95.00, a Health Services Fee of \$85.00, a Library Use Fee of \$10.00, and a State University Fee of either \$732.00 or \$1,260.00 for undergraduate students, or \$900.00 or \$1,551.00 for graduate students, or \$849.00 or \$1,461.00 for teaching credential candidates, depending on unit load.

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

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

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

Legal residents of California are not charged tuition.

INSTALLMENT PLAN

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

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

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

Tuition will be charged for all units attempted.

Per unit..... \$339.00*

(Tuition is payable in addition to registration fees listed above. For fee-paying purposes, zero unit and half-unit courses are counted as one unit. See **Liability for Payment** section for additional important information.)

Health insurance (mandatory for foreign students)

Per year, approximately\$650.00

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

PARKING FEES

Nonreserved parking space, per semester \$117.00

Car pool—see Cashiers Office.

Less than four-wheeled, self-propelled vehicle

(motorcycle, moped) 29.00

Overnight parking surcharge, per semester 78.00

(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, contact the Disabled Student Services Office (Student Services, Room 1661).

Schedule of Fees

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
Counseling Diversion Program fee (missed appointment fee \$30.00)	100.00
Dual Admission, pre-enrollment fee	30.00
Enrollment confirmation deposit fee (nonrefundable)	100.00
Late registration (nonrefundable) (Refer to <i>Class Schedule</i> 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	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	\$4.00 plus each 2.00
Additional copies over ten, prepared at the same time.....	\$22.00 plus each 1.00
AFROTC deposit (Unexpended portion is refundable.)	75.00
Returned payment fee*	35.00
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**	55.00
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
Interest inventory assessment	10.00

* 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 following courses. See applicable *Class Schedule* or <http://www.sdsu.edu/cashiers> for fee amounts.

Art 325, 326, 425, 525, 526, 625, 627, 700D.

Exercise and Nutritional Sciences 347B.

Nutrition 205, 302L, 405.

LABORATORY COURSE FEES

Mandatory laboratory fees are charged for the following courses. See applicable *Class Schedule* or <http://www.sdsu.edu/cashiers> for fee amounts.

Astronomy 109.

Biology 100L, 210, 261, 350, 354L, 366L, 436, 509, 512, 515, 521L, 523, 524, 525, 526, 530, 531, 541, 556, 577, 596 (Sustainability of Coastal Ecosystems section only).

Chemistry 100, 105, 200, 201, 202, 231, 232L, 251, 410A, 417, 431, 432L, 457, 467L, 537, 567.

Computer Engineering 470L.

Electrical Engineering 330L, 430L.

Exercise and Nutritional Sciences 265L, 304L.

Geological Sciences 101, 105, 200, 221, 306, 412, 508, 525, 530, 536, 537, 552.

Mathematics 121, 122.

Natural Science 412.

Physics 107, 182A, 182B, 195L, 196L, 197L, 311, 357, 533, 553, 561.

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™SmartPay does afford students the choice to use a credit card (American Express, MasterCard and Discover Card) to pay registration fees and/or tuition. Refer to fees section on previous page. Most ATM cards are also accepted for payment of miscellaneous charges. Additional information is available from the University Cashiers Office.

LIABILITY FOR PAYMENT

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

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

Nonresident (foreign and out-of-state) tuition must be paid prior to the first day of classes. With the exception of doctoral students and students enrolling for 799A or 799B only, **foreign** students must pay or sign an installment agreement for a minimum of 12 units at the time of registration. **Foreign** students wishing to pay fewer than 12 units must submit written approval to do so from the International Student Center or the Graduate Division, as applicable.

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

DISHONORED CHECK

If your check is returned or not accepted by the bank for ANY REASON, you will be billed for the \$35.00 dishonored payment charge and the \$20.00 late fee when applicable. Nonpayment of fees or tuition may result in cancellation of your registration and withholding of further services until all financial liabilities have been resolved.

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

REFUND OF FEES INCLUDING NON-RESIDENT TUITION

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

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

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

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

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

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

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

Information concerning any aspect of the refund of fees may be obtained from the University Cashiers Office or at <http://www.sdsu.edu/cashiers>.

Return to Title IV Financial Aid Requirements

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

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

Title IV Financial Aid consists of the following programs:

Unsubsidized William D. Ford Federal Direct Loan
Subsidized William D. Ford Federal Direct Loan
Federal Perkins Loan
William D. Ford Federal Direct PLUS Loan
Federal Pell Grant
Federal Supplemental Educational Opportunity Grant (FSEOG)

Examples of refund calculations are available upon request at the University Cashiers Office.

Refund of Parking Fees

REFUNDS ARE NOT AUTOMATIC. This schedule of refunds refers to calendar days, commencing on the date of the term when instruction begins.

Nonreserved space per semester:

<i>Period</i>	<i>Amount of Refund</i>
First week of class	100 percent of fee
Second and third week	75 percent of fee
Fourth week through end of sixth week	50 percent of fee
Seventh week through tenth week	25 percent of fee
Eleventh week through end of term	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.

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

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

FEE WAIVERS

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

Section 68120 – Children and surviving spouses/registered domestic partners of deceased public law enforcement or fire suppression employees who were California residents and who were killed in the course of law enforcement or fire suppression duties (referred to as Alan Pattee Scholarships);

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

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

Students who qualify for these benefits should contact the Office of the Registrar for further information and/or an eligibility determination.

OVER 60 FEE WAIVER PROGRAM

San Diego State University offers a fee waiver program for California residents 60 years of age and older. Both undergraduate and postbaccalaureate students may participate in the program. The program waives the \$55 admission application fee and regular registration fees (except for a nominal \$13 fee). Participants must apply for admission during the regular application 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 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.

Fees and Debts Owed to the Institution

Should a student or former student fail to pay a fee or a debt owed to the institution, the institution may "withhold permission to register, to use facilities for which a fee is authorized to be charged, to receive services, materials, food or merchandise, or any combination of the above from any person owing a debt" until the debt is paid (see Title 5, *California Code of Regulations*, Sections 42380 and 42381).

Prospective students who register for courses offered by the university are obligated for the payment of fees associated with registration for those courses. Failure to cancel registration in any course for an academic term prior to the first day of the academic term gives rise to an obligation to pay student fees including any tuition for the reservation of space in the course.

The institution may withhold permission to register or to receive official transcripts of grades or other services offered by the institution from anyone owing fees or another debt to the institution. 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 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 2005, May 2006, or in the 2006 summer term may adopt this catalog by so indicating on their application for graduation.

I. Freshmen Competency Requirements: Mathematics and Writing

All students are required to demonstrate competency in basic mathematics and standard written English. Incoming students who are not exempt from the CSU Entry Level Mathematics examination (ELM) and/or the English Placement Test (EPT) because of national test scores or college level courses (see explanation of exemptions) must take these tests by the May test date or their admission to SDSU will be cancelled. Those who fail one or both of these examinations are REQUIRED to be enrolled in appropriate sections of General Mathematics and/or Rhetoric and Writing Studies courses in the FIRST semester of enrollment. Students who do not successfully remediate both the ELM and EPT by the end of the third term, including summer term, of enrollment are subject to disenrollment.

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. Students must place (score) in the "**unconditionally exempt**" category on the Early Assessment of Readiness for College Mathematics taken in conjunction with the 11th grade California Standards Test in High School Mathematics or Algebra II.
 - e. Students must place (score) in the "**conditionally exempt**" category on the Early Assessment of Readiness for College Mathematics taken in conjunction with the 11th grade California Standards Test in High School Mathematics or Algebra II **PLUS** successful completion of a CSU-approved mathematics or mathematics-related course or activity taken before you enroll at a CSU campus.
 - f. AP score of 3 on mathematics AB or BC examination or the statistics examination (The College Board Advanced Placement Program).
 - g. Score of 550 on the College Board Mathematics Achievement Test, Level I or IC or II or IIC.
 - h. Score of 550 on the College Board SAT II Mathematics Test, Level I or IC or II or IIC.

OR

- II. Earn a "C" or better grade in a transferable college mathematics course that satisfies General Education in Mathematics/Quantitative Reasoning.

OR

III. Complete BOTH a. and b. (below)

- a. Attempt but fail the ELM test (CSU Entry Level Mathematics) (score below 50 if taken after February 2002 and score below 550 if taken before February 2002).

AND

- b. Earn Credit (Cr) in General Mathematics Studies 91 or 99C at SDSU.

Credit earned in General Mathematics Studies courses numbered below 100 are not applicable to the baccalaureate degree.

Mathematics Departmental Placement Examination

Students wishing to enroll in any logic, mathematics, physics, statistics, or mathematically related course must pass the appropriate part of the Mathematics Departmental Placement Examination. These examinations assess mathematical preparation beyond the elementary level. Part IA tests knowledge of intermediate algebra; the Precalculus Proficiency Examination tests knowledge of algebra and trigonometry as needed in calculus; Part LS tests numbers and operations, geometry and measurement. Equivalent transfer courses will not grant exemptions from any part of the Placement Examination.

WRITING TESTING REQUIREMENTS: FRESHMEN

Demonstration of writing competency is satisfied in one of the following ways:

- I. Pass one of the following national or state tests at the minimum score* or level identified below:
 - a. EPT score of 151 total (CSU English Placement Test).
 - b. SAT 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 test score of 24 (American College Test) if taken after October 1989.
 - d. Students must place (score) in the "exempt" category on the Early Assessment of Readiness for College English taken in conjunction with the 11th grade California Standards Test in English Language Arts.
 - e. AP score of 3 on Language and Composition or Literature and Composition (The College Board Advanced Placement Program).
 - f. Score of 600 on the College Board Achievement Test in English Composition with Essay.
 - g. Score of 680 or above on the College Board SAT II Writing Test taken May 1998 and after. Score of 660 on College Board SAT II Writing Test taken between April 1995 and April 1998. Score of 600 on the College Board SAT II Writing Test taken before March 1995.

OR

- II. Pass with a C or better a transferable college composition course that satisfies General Education in Composition or Critical Thinking.

OR

III. Complete BOTH a. and b. (below)

- a. Attempt but fail the EPT (CSU English Placement Test) (score below 151 total)
- AND
- b. Earn credit (Cr) in one of the following courses: Linguistics 94; Rhetoric and Writing Studies 92A, 92B, 94, 97.

Credit earned in Linguistics and Rhetoric and Writing Studies courses numbered below 100 are not applicable to the baccalaureate degree.

II. Graduation Writing Assessment Requirement (GWAR)

All undergraduates must demonstrate competency in writing skills at the upper division level as a requirement for the baccalaureate degree. The Writing Proficiency Assessment (WPA) is a one-hour examination used to evaluate writing competency.

- A. Students must take the WPA within the time frames described below. Once students are enrolled in Rhetoric and Writing Studies 280 or 281 or Linguistics 281, they may not take the WPA to test out of an upper division writing course.

Continuing Students. Continuing students must take the WPA during the semester in which they are completing 60 units or in the semester immediately following.

Transfer Students. Transfer students are eligible to take the WPA once they have received an offer of admission. They must take the examination during their first semester at SDSU.

- B. Students who do not take the examination by the end of the required time frame will not be able to register for future terms. Students may stop out of the university one semester and maintain continuing student status. If the examination is completed during the stop out term, the student may re-enroll the following semester. Students who have not taken the examination by the end of the stop out term will be required to reapply for admission to SDSU and meet the admission requirements in effect at the time they reapply.

- C. **Writing Proficiency Assessment Scores.** Students who achieve a score of 10 or above on the WPA satisfy the statewide

Graduation Writing Assessment Requirement and do not have to take a writing course **unless an upper division writing course is required by their major.**

Students who achieve a score of 8 or 9 are required to satisfy the Graduation Writing Assessment Requirement by completing an approved upper division writing course with a grade of C or higher. SEE LIST BELOW.

Students who earn a score of 7 or lower are required to complete Rhetoric and Writing Studies 280 (or Rhetoric and Writing Studies 281 or Linguistics 281 if English is your second language) with a grade of C or higher before enrolling in one of the required approved upper division writing courses. **The SDSU registration system will require students who earn a 7 or below to register for the required course in the semester following the testing time frame.**

- D. Students who transfer from another California State University campus having fulfilled the Graduation Writing Assessment Requirement will not be required to repeat it. However, a course listed below may be required for the major. Contact the Academic Advising Center if you believe you have fulfilled this requirement at another CSU.
- E. Students are allowed to attempt the WPA twice within the timeframes and restrictions described above. Students may not drop a course in which they are registered if test results are received after the schedule adjustment deadline. Students must pay the required fees for the examination each time it is taken.

Asian Studies 360W
 Chicana and Chicano Studies 396W
 Communication 310W
 English 306W
 English 308W
 English 508W
 English 581W
 English 584W
 History 400W
 History 450W
 Information and Decision Systems 390W
 Information and Decisions Systems 396W
 Linguistics 305W
 Linguistics 396W
 Recreation 396W
 Rhetoric and Writing Studies 305W
 Rhetoric and Writing Studies 500W
 Rhetoric and Writing Studies 503W
 Rhetoric and Writing Studies 508W
 Women's Studies 400W

III. Major and Minor Requirements

- A. **Preparation for the Major.** Every major requires a set of introductory and/or skills courses designed to prepare the student for upper division study in that field. Courses taken for this purpose may also be used to satisfy General Education requirements if approved for General Education.
- B. **Major.** Completion of a departmental or an interdisciplinary major is required. Students must meet major requirements in effect at time of declaration of major, provided continuous enrollment has been maintained, except as otherwise provided in the *California Code of Regulations*, Chapter 5, Section 40401, Election of Regulations. If a major is impacted, students must meet major requirements in effect at time of declaration of premajor, assuming continuous enrollment. A major is an area of specialized study which provides the student with extensive knowledge of the subject matter and its organizing concepts. It consists of 24 or more upper division units for the Bachelor of Arts, Bachelor of Music, and Bachelor of Vocational Education degrees; and of 36 or more units for the Bachelor of Science degree. At least half of the units must be completed at SDSU unless specifically waived by the department; however, in no case shall a student be allowed to complete fewer than 12 units in the major at SDSU. Units received through SDSU extension courses, with the exception of courses offered for resident credit during summer term and Open University, spring 1998 and thereafter, are not applicable to the residency requirement. Unless otherwise stated, a student may (with the approval of the department) apply no more than three units of coursework from a basic certificate program toward a major or minor.

Graduation Requirements

A summary list of all majors appears at the close of this chapter; the full statement of requirements for each major can be found through the Index. Upper division courses taken in the major department may not be used to meet requirements in a minor or in General Education, except for General Education, Section III, American Institutions. A three-unit General Education course required for your major but not in your major department may be used in Section IV, Explorations **only if** your major requires at least 27 units for the B.A. degree or at least 39 units for the B.S. degree. Courses graded credit (Cr) may not be used to fulfill upper division requirements in the major except for those courses identified in the course listing as graded Cr/NC.

A student may wish to major in two departments. If so, the requirements for both majors must be satisfied. Units for courses which could satisfy the requirements in both majors can be counted only once. Only one diploma will be granted but the diploma and transcript will note the completion of each major.

A student may earn two majors in one department only where the specific combinations of majors are authorized in the catalog. All requirements for both majors must be satisfied; units for courses which could satisfy requirements in both majors can be counted only once. In most cases, students pursuing two majors in one department will be required to file with the Office of the Registrar a master plan approved by the major department.

Time Limit on Completion of Requirements for the Major. As authorized by Title 5, *California Code of Regulations*, Section 40401, departments may require that specific academic requirements be met within seven years of granting an undergraduate degree. Such requirements will consist of advanced courses and examinations in areas of knowledge changing so rapidly that information may be obsolete after seven years. In those cases in which a student is required to repeat a course taken more than seven years previously, only the last grade will be used in computation of grade point averages.

- C. Minor.** Completion of a minor is necessary if required by the major; the decision otherwise to have, or not to have, a minor is left with the student. Like the major, the minor offers an integrated and coherent pattern of coursework, combining lower and upper division coursework in proportions appropriate to the various disciplines. The minor shall consist of 15-24 units. Normally, 12 units of coursework in the minor will be upper division units. A minimum of six upper division units must be completed at SDSU. The minimum grade point average for awarding a minor at the time of graduation is 2.0 (C) or better in all units applicable toward a minor, including those accepted by transfer from another institution. Courses graded credit (Cr) may not be used to fulfill upper division requirements in the minor except for those courses identified in the course listing as graded Cr/NC. Courses numbered 296, 496, 596 may be applicable to the minor only with approval of the department chair. A summary list of all minors appears at the close of this chapter; the full statement of requirements for each minor can be found through the Index. Because special prerequisites must be met to qualify for certain minors, checking with the minor department before taking courses is advised. Courses in the minor may not be counted toward the major 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	Political Sci 101 and 320
Chicana and Chicano Studies 120A and 120B	Political Sci 102 and 305
Chicana and Chicano Studies 141A and 141B	Political Sci 102 and 321
History 109 and 110	Political Sci 102 and 422
History 109 and 410	Political Sci 305 and 320
History 115 and 116	Political Sci 305 and 321
History 110 and 409	Political Sci 305 and 422
History 409 and 410	Political Sci 320 and 321
Political Sci 101 and 102	Political Sci 320 and 422
	Religious Studies 390A and 390B
	Women's Studies 341A and 341B

B. Transfer courses from accredited California Colleges and Universities:

1. **Full Certification of American Institutions Requirement:** Students transferring within California will fulfill the American Institutions requirement by providing certification on a transcript or other official document from a regionally accredited California university, liberal arts college, or community college that the requirement as outlined in Title 5, *California Code of Regulations*, Article 5, Section 40404 has been satisfied.
2. **Partial Completion of American Institutions Requirement:** Transfer credit may be used toward partial fulfillment of the American Institutions requirement.
3. **Certification Based on High School Work:** No certification based on high school work can be accepted.

C. Transfer Courses from Outside California or Advanced Placement Credit:

Students who have met both the American history and United States Constitution portion of the American Institutions requirement through any of the following:

1. Advanced Placement (AP) credit in American history or Government/Politics: American or International Baccalaureate credit in History of the Americas.
2. Course(s) in American history which cover a minimum of 100 years of U.S. history, including the establishment of the U.S. Constitution;
3. 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 Office of Student Testing, Assessment and Research, OR
 - b. Completing one of the following SDSU courses: Africana Studies 170B; Chicana and Chicano Studies 120B, 141B; History 110*, 116*, 410, 445; Political Science 102**, 320**, 321, 422; Religious Studies 390B; Women's Studies 341B.

* Credit will not be granted for this course if the student has taken an equivalent post-Civil War American history course or United States history AP credit.

** Credit will not be granted for this course if the student has taken an equivalent American government course or Government/Politics: United States AP credit.

+ Credit will not be granted if IB History of the Americas examination is passed.

V. Language Requirement

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

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

Native speakers from foreign countries where English is not the principal language and who have finished high school or the equivalent in that country will be considered to have satisfied the language requirement and will not be given credit for taking lower division courses in their native language except with advance approval from the department.

- A. The Bachelor of Arts degree in liberal arts and sciences** (see exceptions above) require competency in a language other than English. Such competency can be demonstrated by:
1. Successfully completing the third college semester or fifth college quarter in a language other than English;
 2. Successfully completing the fourth-year level of high school courses in a language other than English;
 3. Successfully completing a third-semester equivalent proficiency examination in a language other than English;
 4. Graduating from high school (where English is not the major language of instruction) in a non-English speaking country.
 5. Passing with a score of 3 or higher on a placement (AP) examination in French language, French literature, German language, Spanish language, or Spanish literature; or passing with a score of 5 in Latin literature or Vergil.
 6. Passing with a score of 4 to 7 on the higher level examination for International Baccalaureate credit in French, German, or Spanish A2 or Spanish B.

Students who are majoring in **art history, European studies, humanities, international economics, and linguistics** should also read the section on language requirement under their respective majors for special conditions and limits pertaining to those majors.

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

Arabic 101, 102, 201 or 202
 Chinese 101, 102, and 201
 Classics 101G, 202G, and 303G (Greek)
 Classics 101L, 202L, and 303L (Latin)
 French 100A, 100B, and 200 or 201 or 210 or 221
 German 100A, 100B, 202 or 205A or 205B
 Hebrew 101, 102 and 200, and 201
 Italian 100A, 100B, and 201 or 210
 Japanese 111, 112, and 211
 Portuguese 101, 201, and 301
 Russian 100A, 100B, and 200A
 Spanish 101, 102, and 103 or 202 or 281 or 282
 Speech, Language, and Hearing Sciences 159, 259, and 289

- B. The Bachelor of Music degree** (except the specialization in Jazz) requires equivalent knowledge demonstrated in a test of reading knowledge administered by the foreign language department concerned in consultation with the School of Music and Dance or by completion of the appropriate language course as follows:
1. *Vocalists* – one semester each of French, German, and Italian.
 2. *Music Education* – two semesters of Spanish.
 3. *All others* – two semesters of one language chosen from French, German, Italian, or Spanish.

VI. Unit Requirements

- A. Overall unit requirement.** The minimum number of units necessary for a bachelor's degree (excluding courses numbered 99 and below; also courses numbered 397) is 120. Many majors and degrees have requirements that extend beyond the minimum number of units as listed below:
1. Bachelor of Arts degree in Applied Arts and Sciences 120-124
 2. Bachelor of Arts degree in Liberal Arts and Sciences .. 120-124
 3. Bachelor of Science degree in Applied Arts and Sciences 120-128

4. Bachelor of Science degree in Engineering 128-138
 5. Bachelor of Science degree in Geological Sciences ... 124-132
 6. Bachelor of Science degree in Physical Science 130
 7. Bachelor of Fine Arts degree in Dance..... 132
 8. Bachelor of Music degree 132
 9. Bachelor of Vocational Education degree 120
- The degree which applies to a particular student is determined by the student's choice of major. Each student should therefore consult the statement of his or her major to establish the applicable degree. The full statement of each major can be found by consulting the Index.

- B. Upper division unit requirement.** The total number of upper division units necessary for a bachelor's degree is as follows:

1. Bachelor of Arts degree in Applied Arts and Sciences 40
2. Bachelor of Arts degree in Liberal Arts and Sciences 40
3. Bachelor of Science degree in Applied Arts and Sciences 45
4. Bachelor of Fine Arts degree in Applied Arts and Sciences....41
5. Bachelor of Music degree 37-45
6. Bachelor of Fine Arts degree in Dance.....41
7. Bachelor of Vocational Education degree 40

Courses offering upper division credit are those numbered 300 through 599. All units from upper division courses (except those numbered 397 in any department) are applicable to the upper division unit requirement, including units from courses in the major and the minor, and from courses used to satisfy the American Institutions and the General Education requirements.

- C. Unit limit totals.** The maximum number of special units accepted for a bachelor's degree is as follows:

1. From transferable community and junior college courses 70
2. From credit by examination (excluding AP credit) 30
3. From extension, Open University, and correspondence courses 24
- *4. From courses graded credit (Cr) 15
5. From topics courses numbered 296, 496, 596 9
6. From General Studies courses numbered 200 and 400 6
7. From courses numbered below 100, and courses numbered 397 0
8. From Special Study courses numbered 299, 499, 599 9
9. From courses numbered 499 from one department (except Geological Sciences 499) 6
10. From Aerospace Studies, Military Science, and Naval Science courses 24
11. From Music 170-189, 369-389, 569-589 (for non-major and music major for B.A. degree) 14
12. From Music 170-189, 369-389, 569-589 (for music major for B.M. degree in General Music and Music Education) . 14
13. From Music 170-189, 369-389, 569-589 (for music major for B.M. degree in Performance, Composition, and Jazz Studies) 18

* **Upper division courses in the major and minor must be taken for a letter grade unless they are offered only credit/no credit.**

- D. Units in one department.**

1. **Bachelor of Arts degree in Liberal Arts and Sciences.** The maximum number of units in any one department, lower and upper division combined, which can be applied toward the Bachelor of Arts degree in Liberal Arts and Sciences is 48, except in those majors outlined below:
 - a. For students majoring in communicative disorders..... 68
 - b. For students majoring in English (courses in Comparative Literature, English, Rhetoric and Writing Studies) 54
 - c. For students majoring in French 49
 - d. For students majoring in Japanese 56
 - e. For students majoring in psychology 50

- f. For students majoring in Russian53
- g. For students majoring in social work 51
- h. For students majoring in Spanish or completing the single subject teaching credential program in Spanish 52
- i. For students majoring in art with an emphasis in studio arts 57
- 2. **Bachelor of Fine Arts in Dance degree.** The maximum number of units in upper division dance courses acceptable toward the Bachelor of Fine Arts in Dance degree is 70.
- 3. **Bachelor of Music degree.** The maximum number of units in upper division music courses acceptable toward the Bachelor of Music degree is 70.
- 4. **Bachelor of Science degree in Business Administration.** The minimum number of units required outside of business administration, economics, and statistics is 60.

VII. Residence Requirements

To qualify for a bachelor's degree, each of the following unit requirements must be completed at this university:

- A. A minimum of 30 units total, of which at least 24 units must be in upper division courses (numbered 300-599).

- B. At least half of the upper division units required for the major, unless waived by the major department; however, in no case shall the unit total be fewer than 12 upper division units.
- C. If a minor is completed, a minimum of six upper division units in the minor.
- D. At least nine units in General Education courses.

Note: Courses taken in Open University prior to spring 1998, in Extension, and units earned through credit-by-examination may not be applied to these requirements.

VIII. Grade Point Average Requirements

Four averages, each 2.0 or higher, are required for graduation:

- A. An average based on all courses attempted at SDSU.
- B. An average based on all courses attempted at SDSU and transferable courses at other universities, liberal arts colleges, and community colleges.
- C. An average based on all upper division courses attempted in the major department. Upper division courses required for the major but taught outside the major department will also be included in the average.
- D. An average based on all units applicable to a minor, if a minor is being completed for the degree.

Information on the computation of averages can be found in University Policies under Grades.

IX. General Education

As an important part of your undergraduate education, you will spend approximately one-third of your college years studying in the General Education program. Coursework in General Education is intended to equip you with the abilities to remember and learn from the past, to experience and enjoy our artistic and literary heritage, to understand and appreciate the multicultural complexity of our society, to comprehend the advances technology will bring, to make educated decisions as a member of the electorate, and to continue learning after your college education is completed.

General Education at SDSU represents both a global and regional perspective. It provides an understanding of various socio-economic backgrounds with the intent of fostering mutual understanding and respect for cultural diversity. In addition, GE develops critical-thinking and interpersonal skills.

In demonstrating the interrelated nature of human endeavors, General Education shows how discipline specific knowledge is linked with other subject areas. With a demonstrated linkage between general education courses and those in other disciplines, you will be able to discern the complexities of society and the environment, and to integrate these into your personal and professional lives.

The program has four major objectives: (1) to develop your intellectual capabilities necessary to the enterprise of learning; (2) to introduce you to modes of thought characteristic of diverse academic disciplines; (3) to help you understand the conditions and forces that shape you as a human being and influence your life; and (4) to help you apply critical and informed judgments to the achievements of your own and other cultures.

The program consists of 49 units divided into four sections: I, Communication and Critical Thinking; II, Foundations; III, American Institutions; IV, Explorations. The sections should be taken in sequence so that you master skills needed to understand the academic disciplines of the university, and to prepare you for the more specialized or interdisciplinary courses in Section IV (Explorations).

Each section has specific educational objectives and courses designed to meet these objectives. For example, courses in Section I, Communication and Critical Thinking, are designed to develop your skills in the areas of written and oral communication, and in reasoning. Courses in Section II, Foundations, use the skills developed in Section I, and provide an introduction to various areas of study. The knowledge you gain in Foundations will help prepare you to live in our multicultural society. Section III, American Institutions courses provide you with knowledge of American democracy and enable you to contribute as a responsible and constructive citizen. Section IV, Explorations, **courses are upper division and cannot be used to fulfill this requirement if taken before you reach junior standing (passing 60 units)**. Explorations courses build on the knowledge you gained in the first three sections, and provide more specialized or thematic study in the disciplines included in Foundations.

General Education Goals

Mission Statement

The overall intellectual development of each student is the central focus of San Diego State University's general education program. The intent of the program is to provide students with multiple sets of skills, perspectives, and knowledge that will enable them to approach intellectual, cultural, and ethical issues in a flexible and balanced fashion. This breadth of understanding is the basis for effective citizenship, effective contribution to society through a profession, and lifelong enjoyment of artistic and intellectual activities. The General Education program is expected to provide the motive and foundation for lifelong learning, and help students develop their personal world views, identities, and sense of purpose.

Because the focus of General Education courses is on personal intellectual development and the application and integration of knowledge, General Education courses have a special responsibility to assist students in becoming active learners who participate in their education, and to suggest how different academic fields are connected to one another. The goals of these courses will differ from those of courses in the major. Majors emphasize specialized content and skills, the theoretical perspectives and methodologies required by particular disciplines. While most general education courses will derive from disciplinary perspectives, it is desirable that they display an interdisciplinary awareness, orienting students to the context of the field and pointing out the contributions or perspectives of other fields where appropriate. The disciplines, in other words, should be placed in a wider world to which students can relate their learning. Interdisciplinary and other kinds of courses whose primary purpose is the integration of learning will also have a place in the General Education program.

Student Learning Goals for General Education as a Whole

The following student learning goals have been identified for the General Education program as a whole:

- A. Proficiencies: Students should be able to gather, comprehend, and evaluate information and to communicate this knowledge. Because such skills are important to lifelong learning and to participation in modern society, graduates should demonstrate the ability to:
 - Write and speak clearly, coherently, and effectively as well as to adapt modes of communication to one's audience;
 - Interpret academic writing and discourse in a variety of disciplines;
 - Interpret numerical data and perform basic computation;
 - Locate, analyze, synthesize, and evaluate information;
 - Utilize appropriate technologies;
 - Utilize appropriate language skills.
- B. Knowledge and Understanding: To be lifelong learners, critical and creative thinkers, and responsible citizens students should acquire broad and general understanding of the fundamental values, concepts, perspectives, and methodologies of a variety of academic disciplines:
 - Scientific principles and their use in scientific inquiry;
 - Quantitative approaches and their use in solving problems;
 - Historical, cultural, and philosophical traditions that have shaped our diverse society;
 - Significant elements of the world's diverse cultures and interconnections among them;
 - The aims and methods of intellectual, spiritual, literary, and artistic expression;
 - The significance that abstract ideas and artistic expressions have in the process of self-understanding and in the shaping of society.
- C. Habits of Mind and Attributes of Character: To be independent decision-makers and responsible citizens students should possess:
 - Sensitivity to social and cultural differences;
 - Sensitivity and attentiveness to the ethical dimensions of any problem or experience;
 - A disposition to weigh opposing viewpoints in the balance of reason and to develop an informed perspective;
 - A disposition to welcome new knowledge and insight (intellectual curiosity);
 - The ability to think logically, critically, and contextually in assessing evidence and recognizing bias and false logic.
 - Openness to the value of new social, cultural, or aesthetic forms (flexibility of mind and sensibility);
 - An appreciation for the broader social, intellectual, and historical contexts of individual events and situations;
 - Recognition of social and intellectual responsibility;
 - Understanding issues of value, making appropriate value judgments, and expressing their values.

GENERAL EDUCATION

Requirements and Limitations

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

Within these 49 units, the following limitations apply:

1. No more than **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 and IV combined (Foundations and Explorations), nor more than **10** units from one department in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).
3. All credit earned in the General Studies 260A-260F 18-unit package will satisfy General Education. The limitations described in 1. and 2. above do not apply to these courses, but students who complete all 18 units may not take any additional courses in General Studies to satisfy Section IV, Explorations. Students who complete only one 9-unit package (General Studies 260A and 260B and 260C, or General Studies 260D and 260E and 260F) may apply only one additional General Studies course to satisfy Section IV, Explorations.
4. Upper division courses in your major department cannot be used in Section IV (Explorations).
5. A three-unit General Education course required for your major but not in your major department may be used in Section IV, Explorations **only if** your major requires at least 27 units for the B.A. degree or at least 39 units for the B.S. degree.
6. Explorations courses shall not be taken sooner than the semester in which you pass 60 units.
7. Credit/No Credit grades cannot be used in Section I (Communication and Critical Thinking or Section II.A.4. Mathematics/Quantitative Reasoning).
8. Courses numbered 296, 299, 496, 499, 500-level and above cannot be used in General Education.

Transfer Students—Additional Information

If you fall into one of the following four categories, you must complete only Section IV (Explorations) to satisfy your General Education requirements.

1. You transferred from a California community college and have **completed** the Intersegmental General Education Transfer Curriculum (IGETC), or
2. You transferred from a California community college and are certified as having **completed** the 39 unit lower division CSU General Education pattern (Sections I, II, and III), or
3. You transferred from another California State University campus and have completed all lower division General Education requirements at the CSU campus, or
4. You transferred from a University of California campus and have completed all lower division General Education requirements at the UC campus.

Your previous college must provide SDSU with proof of completion, either a GE certification or a statement of completion from a University of California campus. Remember, you may not take Explorations courses sooner than the semester in which you complete 60 units.

If you completed one or more areas of CSU general education pattern at a California community college or another CSU campus, some of the SDSU general education area requirements may be met. If you have transfer courses from a California community college, a CSU or UC campus (but have not completed any general education area), these courses may be used in the appropriate area of the SDSU general education pattern. Consult with an adviser at the Academic Advising Center to determine which requirements you must complete.

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

Freshman Registration Requirements

All students entering SDSU as freshmen are required to register for a specific sequence of lower division General Education courses in the areas of I.1. Oral Communication, I.2. Composition, I.3. Intermediate Composition and Critical Thinking, II.4. and Mathematics/Quantitative Reasoning. Freshmen whose scores on the Entry Level Mathematics (ELM) and English Placement Test (EPT) examinations are below passing must enroll in the appropriate remedial course in the first semester. Freshmen must begin the required sequences in their first semester and continue in subsequent semesters until they complete the sequences. The registration system will enforce enrollment in the required courses. This enforcement will occur every semester until the required sequences are completed. This requirement is described in detail in the Freshman Registration Guide at <http://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)
- English 100. Rhetoric of Written Argument (3) [Same course as Rhetoric and Writing Studies 100.]
- General Studies 260A. Composing Identities (3)
- Linguistics 100. English Composition for International Students (3)
- Rhetoric and Writing Studies 100. Rhetoric of Written Argument (3) [Same course as English 100.]
- Rhetoric and Writing Studies 101. Rhetoric of Written Argument (3)

3. Intermediate Composition and Critical Thinking

- Africana Studies 200. Intermediate Expository Writing and Research Fundamentals (3)
- Chicana and Chicano Studies 200. Intermediate Expository Research and Writing (3)
- English 200. Rhetoric of Written Arguments in Context (3) [Same course as Rhetoric and Writing Studies 200.]
- General Studies 260D. Imagining Communities (3)
- Linguistics 200. Advanced English for International Students (3)
- Philosophy 110. Critical Thinking and Composition (3)
- Rhetoric and Writing Studies 200. Rhetoric of Written Arguments in Context (3) [Same course as English 200.]

II. FOUNDATIONS (28 units)

No more than **7** units total may be taken in any one department in Foundations and Explorations combined and no more than **10** units may be taken in any one department in Foundations, American Institutions, and Explorations combined.

A. Natural Sciences and Quantitative Reasoning.

Complete one course from each of the following four sections. (For majors in the sciences and related fields refer to the section "Special Provision for Majors in the Sciences and Related Fields.")

1. Physical Sciences

- Astronomy 101. Principles of Astronomy (3)
- Astronomy 201. Astronomy for Science Majors (3)
- Chemistry 100. Introduction to General Chemistry with Laboratory (4)
- + Geography 101. Principles of Physical Geography (3)
[Cannot be used in combination with Anthropology 101.]
- + Geography 103. Weather and Climate (3) [Cannot be used in combination with Anthropology 101.]
- Geological Sciences 100. Planet Earth (3)
- Geological Sciences 104. Earth Science (3)
- Natural Science 100. Physical Science (3)
- Oceanography 100. The Ocean Planet (4)
- Physics 107. Introductory Physics with Laboratory (4)

2. Life Sciences

- + Anthropology 101. Human Biocultural Origins (3) [Cannot be used in combination with Geography 101 or 103.]
- Biology 100. General Biology (3)
- Biology 101. World of Animals (3)
- Biology 203. Understanding Biology (4)

3. Laboratory

- Astronomy 109. Astronomy Laboratory (1)
- Biology 100L. General Biology Laboratory (1)
- Biology 101L. World of Animals Laboratory (1)
- Biology 203. Understanding Biology (4)
- Chemistry 100. Introduction to General Chemistry with Laboratory (4)
- Geography 101L. Physical Geography Laboratory (1)
- Geological Sciences 101. Dynamics of the Earth Laboratory (1)
- Oceanography 100. The Ocean Planet (4)
- Physics 107. Introductory Physics with Laboratory (4)

4. Mathematics/Quantitative Reasoning

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

- Biology 215. Biostatistics (3)
- Computer Science 100. Fundamental Ideas in Computer Science (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 (4)
- Mathematics 151. Calculus II (4)
- Mathematics 210. Number Systems in Elementary Mathematics (3)
- Mathematics 211. Geometry in Elementary Mathematics (3)
- Mathematics 245. Discrete Mathematics (3)
- Mathematics 252. Calculus III (4)
- Mathematics 254. Introduction to Linear Algebra (3)
- Philosophy 120. Introduction to Logic (3)
- Political Science 201. Elementary Statistics for Political Science (3)
- 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)

+ Only one of these three courses may be taken for General Education credit.

Special Provision for Majors in the Sciences and Related Fields

Some majors require or recommend coursework in astronomy, biology, chemistry, geological sciences, or physics in preparation for the major. If you have declared one of these majors you may substitute those courses for courses listed under either Life Sciences or Physical Sciences (as appropriate) in Section II.A above.

B. Social and Behavioral Sciences. Complete two courses taken from different departments (6 units). Students who complete General Studies 260C and 260F will clear the Social and Behavioral Sciences requirement.

- Africana Studies 101A. Introduction to Africana Studies: Social and Behavioral Sciences (3)
- Africana Studies 270. African Foundations of Africana Studies (3)
- Anthropology 102. Introduction to Cultural Anthropology (3)
- Asian Studies 100. State and Society in the Asia Pacific (3)
- 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) [For Liberal Studies majors only.]
- General Studies 260C. Composing Identities (3)
- General Studies 260F. Imagining Communities (3)
- Geography 102. Principles of Cultural Geography (3)
- Geography 106. World Regional Geography (3)
- Gerontology 101. Introduction to Human Aging (3)
- Linguistics 101. Introduction to Language (3)
- Political Science 103. Introduction to Comparative Politics (3)
- Psychology 101. Introductory Psychology (3)
- Sociology 101. Introductory Sociology: The Study of Society (3)
- Women's Studies 101. Women: Self, Identity and Society (3)

C. Humanities. Complete a course in each of four of the following five areas (12 units). General Studies 260B, Composing Identities and 260E, Imagining Communities, satisfy a total of six units under C. Humanities. Students taking both of these courses must also complete two additional courses from two of the following areas (excluding C.2.) to fulfill the 12 unit requirement in Humanities: 1. Literature, 3. History, 4. Philosophy and Religious Studies, or 5. Foreign Language.

1. Literature

- Africana Studies 260. Africana Literary Study (3)
- Comparative Literature 270A. World Literature (3)
- Comparative Literature 270B. World Literature (3)
- English 220. Introduction to Literature (3)

2. Art, Classics, Dance, Drama, Humanities, and Music

- Africana Studies 101B. Introduction to Africana Studies: Humanities (3)
- American Indian Studies 110. American Indian Heritage (3)
- Art 157. Introduction to Art (3)
- Art 258. Introduction to Art History (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)
- German 150. Introduction to German Studies (3)
- Humanities 101. Introduction to Humanities (3)
- Humanities 140. Mythology (3)
- Jewish Studies 130. The Jewish Heritage (3)
- Music 151. Introduction to Music (3)
- Russian 110. Slavic Legends and Tales (3)
- Theatre 100. Theatre and Civilization (3)
- Theatre 120. Heritage of Dramatic Literature (3)
- Women's Studies 102. Women: Images and Ideas (3)

Graduation Requirements

3. History

- History 100. World History (3)
- History 101. World History (3)
- History 105. Western Civilization to the Seventeenth Century (3)
- History 106. Western Civilization Since the Sixteenth Century (3)

4. Philosophy and Religious Studies

- Africana Studies 240. Africana Intellectual Thought (3)
- Philosophy 101. Introduction to Philosophy: Ethics (3)
- Philosophy 102. Introduction to Philosophy: Knowledge and Reality (3)
- Philosophy 103. Historical Introduction to Philosophy (3)
- Religious Studies 100. Exploring the Bible (3)
- Religious Studies 101. World Religions (3)
- Religious Studies 103. American Religious Diversity (3)

5. Foreign Language

- Arabic 101. Elementary Arabic I (4)
- Arabic 102. Elementary Arabic II (4)
- Arabic 201. Intermediate Arabic I (4)
- Arabic 202. Intermediate Arabic II (4)
- Chinese 101. Elementary Chinese I (5)
- Chinese 102. Elementary Chinese II (5)
- Chinese 201. Intermediate Chinese I (5)
- Chinese 202. Intermediate Chinese II (5)
- Classics 101G. Elementary Greek I (5)
- Classics 101L. Elementary Latin I (5)
- Classics 120. English from Latin and Greek (3)
- Classics 202G. Elementary Greek II (5)
- Classics 202L. Elementary Latin II (5)
- French 100A. Elementary French I (5)
- French 100B. Elementary French II (5)
- French 201. Readings in French (3)
- French 210. French Grammar (3)
- French 220. Grammar of Spoken French (3)
- French 221. Writing French (3)
- German 100A. First Course in German (5)
- German 100B. Second Course in German (5)
- German 202. Readings in German (3)
- German 205A. Third Course in German (4)
- German 205B. Fourth Course in German (4)
- Hebrew 101. Elementary Hebrew I (3)
- Hebrew 102. Elementary Hebrew II (3)
- Hebrew 201. Intermediate Hebrew (4)
- Italian 100A. Elementary Italian I (5)
- Italian 100B. Elementary Italian II (5)
- Italian 201. Reading and Speaking Italian (3)
- Italian 210. Intermediate Grammar and Composition (3)
- Japanese 111. Elementary Japanese I (6)
- Japanese 112. Elementary Japanese II (6)
- Japanese 211. Intermediate Japanese I (6)
- Japanese 212. Intermediate Japanese II (6)
- Latin American Studies 110. Elementary Mixtec I (4)
- Latin American Studies 111. Elementary Mixtec II (4)
- Linguistics 242. Foreign Language Experiences (3)
- Persian 101. Elementary Modern Persian I (4)
- Persian 102. Elementary Modern Persian II (4)
- Portuguese 101. Elementary/Intensive Portuguese I (5)
- Portuguese 201. Elementary/Intensive Portuguese II (5)
- Russian 100A. Beginning Russian 1 (5)
- Russian 100B. Beginning Russian 2 (5)
- Russian 200A. Intermediate Russian 1 (5)
- Russian 200B. Intermediate Russian 2 (5)
- Spanish 101. Introduction to Spanish I (4)
- Spanish 102. Introduction to Spanish II (4)
- Spanish 103. Introduction to Spanish III (4)
- Spanish 202. Intermediate (4)
- Spanish 211. Intermediate Conversation and Reading (3)
- Spanish 212. Intermediate Conversation and Writing (3)
- Spanish 281. Intermediate Spanish for U.S. Hispanics (3)

- Spanish 282. Intermediate Spanish for U.S. Hispanics (3)
- Speech, Language, and Hearing Sciences 159. American Sign Language I (4)
- Speech, Language, and Hearing Sciences 259. American Sign Language II (4)
- Speech, Language, and Hearing Sciences 289. American Sign Language III (4)

III. AMERICAN INSTITUTIONS (3 units)

Three units of the six units of coursework which meet the American Institutions graduation requirement may be used in General Education, excluding courses numbered 500 and above. Refer to section IV. Explorations for exceptions. Upper division courses in the major department may be used to satisfy General Education, Section III, American Institutions.

IV. EXPLORATIONS

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

No more than **seven** units total may be taken in any one department in Foundations and Explorations combined and no more than **ten** units 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 and Biochemistry, Computer Science, Environmental Sciences, Geological Sciences, Mathematics and Statistics, Natural Science, Nursing, and Physics may replace the area A course with an additional course from area B or C or an upper division American Institutions course if American Institutions requirement was not completed with lower division coursework.)

A. Natural Sciences. Complete one course.

- * Anthropology 402. Dynamics of Biocultural Diversity (3)
- Astronomy 301. Cosmology and Gravitational Collapse (3)
- Astronomy 310. Astrobiology and the Search for Extraterrestrial Life (3)
- Biology 307. Biology of Sex (3)
- Biology 315. Ecology and Human Impacts on the Environment (3)
- Biology 319. Evolution (3)
- Biology 321. Human Heredity (3)
- Biology 324. Life in the Sea (3)
- Biology 326. Plants, Medicines, and Drugs (3)
- Biology 327. Conservation of Wildlife (3)
- Biology 336. Principles of Human Physiology (3)
- Biology 341. The Human Body (3)
- Chemistry 300. Mysteries and Molecules (3)
- Chemistry 308. Chemistry as a Unifying Science (3)
- Computer Science 301. Computers and Society (3)
- Environmental Engineering 320. Designing Solutions for Environmental Problems (3)
- # General Studies 340. Confronting AIDS (3)
- Geological Sciences 301. Geology of National Parks and Monuments (3)
- Geological Sciences 302. Fossils: Life Through Time (3)
- Geological Sciences 303. Natural Disasters (3)
- Geological Sciences 304. Planetary Geology (3)
- Geological Sciences 305. Water and the Environment (3)
- Geological Sciences 308. How Volcanoes Work (3)
- Mathematics 303. History of Mathematics (3)
- Natural Science 310. Science in Science Fiction (3)
- Natural Science 315. History of Science and Technology (3)
- Natural Science 317. Development of Scientific Thought (3)
- Natural Science 333. Technology and Human Values (3)
- Nursing 350. Women's Health Across the Lifespan (3)
- Oceanography 320. The Oceans (3)
- Physics 301. Energy and the Environment (3)

* Cultural diversity course.

Only one of these two courses may be taken for General Education credit.

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 450. Perspectives on American Indian Identity (3)
- * American Indian Studies 460. American Indian Languages (3)
- * American Indian Studies 480. Issues in American Indian Education (3)
- * Anthropology 350. Cultures Around the Globe (3)
- * Anthropology 410. Language in Culture (3)
- * Anthropology 430. Anthropology of Law and Dispute Processing (3)
- * Anthropology 432. Principles of Personality in Culture (3)
- * Anthropology 439. Cultural Comparisons Through Film (3)
- * Anthropology 442. Cultures of South America (3)
- * Anthropology 445. Ethnology of North America (3)
- * Anthropology 446. Native Peoples of the Southwest (3)
- * Anthropology 449. Cultures of Sub-Saharan Africa (3)
- * Anthropology 450. Cultures of India (3)
- * Anthropology 452. Japanese Society (3)
- * Anthropology 457. Native Cultures of California (3)
- Asian Studies 300. Asia's Global Future (3)
- Asian Studies 303. Imperialism and Nationalism in the Asia Pacific (3)
- * Asian Studies 310. Diasporan Communities of the Asia Pacific (3)
- *† Asian Studies 460. Contemporary Issues in Filipino-American Communities (3)
- * Chicana and Chicano Studies 301. Political Economy of the Chicano People (3)
- * Chicana and Chicano Studies 303. Mexican American Community Studies (3)
- * Chicana and Chicano Studies 320. Mexican American Life Styles (3)
- * Chicana and Chicano Studies 355. The United States-Mexico International Border (3)
- * Communication 371. Intercultural Communication (3)
- Communication 408. Mass Communication and Society (3)
- # 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 413. Multicultural Aspects of Social Institutions (3)
- General Studies 420. Disability and Society (3)
- * Geography 312. Culture Worlds (3)
- Geography 321. United States (3)
- * Geography 323. Middle America (3)
- * Geography 324. South America (3)
- Geography 336. Europe (3)
- Geography 354. Geography of Cities (3)
- Geography 370. Environmental and Natural Resource Conservation (3)
- * Gerontology 360. Minority and Ethnic Aging (3)
- * Gerontology 370. Images of Aging in Contemporary Society (3)
- * International Security and Conflict Resolution 300. Global Systems (3)
- * International Security and Conflict Resolution 301. Conflict and Conflict Resolution (3)
- International Security and Conflict Resolution 310. Our Global Future: Values for Survival (3)
- International Security and Conflict Resolution 320. International Security in the Nuclear Age (3)
- Linguistics 354. Language and Computers (3)
- Linguistics 420. Linguistics and English (3)
- ‡ 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)
- * Recreation 404. Cross-Cultural Perspectives of Tourism (3)
- * Social Work 350. Cultural Pluralism (3)
- Social Work 360. Perspectives on Human Behavior and the Social Environment (3)
- Sociology 320. Sex/Gender Roles in American Society (3)
- Sociology 335. Mass Communication and Popular Culture (3)
- Sociology 338. Sociology of Religion (3)
- Sociology 350. Population and Contemporary Issues (3)
- Sociology 352. Contemporary Social Problems (3)
- * Sociology 355. Minority Group Relations (3)
- Sociology 410. Social Psychology: Mind, Self, and Society (3)
- Sociology 421. The American Family and Its Alternatives (3)
- Sociology 430. Social Organization (3)
- Sociology 450. Social Change (3)
- * Women's Studies 310. Women in Cross-Cultural Perspective (3)
- * Women's Studies 320. Socialization of Women (3)
- * Women's Studies 325. Psychology of Women (3)
- * Women's Studies 331. Women in Asian Societies (3)
- * Women's Studies 370. Women, Law, and Policy (3)
- * Women's Studies 375. Sex, Power, and Politics (3)
- * Women's Studies 385. Women's Work (3)

* **Cultural diversity course.**

Only one of these two courses may be taken for General Education credit.

‡ **Majors in the College of Business Administration may not use this course to satisfy requirements for General Education.**

† **Either Asian Studies 460 (IV.B.) or History 422 (IV.C.) may be taken for General Education credit.**

Graduation Requirements

C. Humanities. Complete one course.

- * Africana Studies 365A. African American Literature to 1900 (3)
- * Africana Studies 365B. African American Literature After 1900 (3)
- * Africana Studies 385. African American Music (3)
- * Africana Studies 460. Black Images in Western Literature (3)
- * Africana Studies 463. Black Literatures of the World (3)
- * Africana Studies 464. Caribbean Literature (3)
- *^ Africana Studies 465. Africa in Literature and Film (3)
[Same course as French 465]
- * Africana Studies 470. Comparative History: Afro-American and African Heritage (3)
- * Africana Studies 472. Comparative Slavery (3)
- * American Indian Studies 300. American Indian Oral Literature (3)
- * American Indian Studies 430. American Indian Poetry and Fiction (3)
- * American Indian Studies 440. American Indian History (3)
- * American Indian Studies 470. American Indian Religion (3)
- * Anthropology 349. Roots of Civilizations (3)
- * Anthropology 422. Music and Culture (3)
- * Anthropology 424. The Supernatural in Cross-Cultural Perspective (3)
- Arabic 301. Advanced Arabic I (4)
- Arabic 302. Advanced Arabic II (4)
- *^ Arabic 330. Arabic Culture (3)
- Art 357. World Art in Contemporary Life (3)
- * Asian Studies 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)
- * 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 460. Modern Asian Literature (3)
- * Comparative Literature 470. Folk Literature (3)
[Maximum GE credit 3 units]
- English 301. The Psychological Novel (3)
- @ English 302. Introducing Shakespeare (3)
- English 405. The Bible as Literature (3)
[Same course as Comparative Literature 405]
- English 409. Science Fiction (3)
- English 410. Literature and the Passions (3)
- English 494. Modern Fiction of the United States (3)
- European Studies 301. Contemporary Europe (3)
- European Studies 424. European Cinema (3)
- French 301. Advanced Grammar and Composition (3)
- French 302. Translation and Stylistics (3)
- French 305A. Survey of French Literature (3)
- French 305B. Survey of French Literature (3)
- French 421. French Civilization (3)
- French 422. Contemporary France (3)
- *^ French 424. French Cinema and Theory (3)
- *^ French 465. Africa in Literature and Film (3)
[Same course as Africana Studies 465]
- * General Studies 322. Gay and Lesbian History and Culture (3)
- General Studies 450. Life and Culture Semester Abroad (3)
- German 300. Readings in Contemporary German Culture (3)
- German 301. Grammar and Composition (3)
- ^ German 320. German Film (3)
- * Hebrew 330. Hebrew Discourse and Literature (3)
- * Hebrew 471. Kabbalah as a Symbolic System (3)
- * History 402. History of Childhood (3)
- * History 406. History of Sexuality (3)
- History 407. Early Modern Europe (3)
- History 408. Modern Europe (3)
- * History 415. Pre-Contact and Colonial Latin America (3)
- * History 416. Modern Latin America (3)
- * History 420. Asia's Dynamic Traditions (3)
- * History 421. Asia's Emerging Nations (3)
- *† 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)

* **Cultural diversity course.**

@ **English 533 may not be used in place of English 302 for General Education credit.**

^ **Taught in English.**

† **Either Asian Studies 460 (IV.B.) or History 422 (IV.C.) may be taken for General Education credit.**

- Philosophy 305. Classics of Western Philosophy (3)
- Philosophy 310. Philosophy and Human Nature (3)
- Philosophy 329. Social Ethics (3)
- Philosophy 330. Medical Ethics (3)
- Philosophy 332. Environmental Ethics (3)
- Philosophy 333. Philosophy of Technology (3)
- Philosophy 334. Philosophy and Literature (3)
- * Philosophy 351. Chinese Philosophy (3)
- Portuguese 301. Intermediate Portuguese Grammar and Composition (3)
- Portuguese 401. Advanced Portuguese Grammar and Composition (3)
- Professional Studies and Fine Arts 320. Creativity and Communication in the Arts (3)
- Religious Studies 301. Hebrew Bible (3)
- Religious Studies 305. The New Testament (3)
- * Religious Studies 310. The Qur'an (3)
- Religious Studies 320. Judaism (3)
- Religious Studies 325. Christianity (3)
- * Religious Studies 328. Islam (3)
- * Religious Studies 333. Ancient Near Eastern Religions (3)
- * Religious Studies 338. Buddhism (3)
- * Religious Studies 339. Religions of India (3)
- * Religious Studies 345. Religions of East Asia (3)
- Religious Studies 350. Dynamics of Religious Experience (3)
- Religious Studies 353. Religion and Psychology (3)
- Religious Studies 358. Death, Dying, and the Afterlife (3)
- Religious Studies 363. Religion and the Sciences (3)
- Religious Studies 364. Religion and Film (3)
- * Religious Studies 370. Women in Religion (3)
- * Religious Studies 373. Women and the Bible (3)
- Religious Studies 376. Nature, Spirituality, Ecology (3)
- Religious Studies 378. Religion and the Marketplace (3)
- Religious Studies 379. Religious Violence and Nonviolence (3)
- * Religious Studies 385. American Indian Religions (3)
- Religious Studies 395. Alternative Religious Movements (3)
- Russian 301. Advanced Grammar and Composition (3)
- ^ Russian 305A. Russian Literature of the Nineteenth Century (3)
- ^ Russian 305B. Russian Literature of the Twentieth Century (3)
- ^ Russian 310. Russian and East European Cinema (3)
- Russian 430. Russian Civilization (3)
- * Russian 435. Russia and Central Europe Jewish Literature (3)
- Spanish 340. Spanish Civilization (3)
- Spanish 341. Spanish American Civilization (3)
- * Spanish 342. Mexican Civilization (3)
- Spanish 405A. Survey Course in Spanish Literature (3)
- Spanish 405B. Survey Course in Spanish Literature (3)
- Spanish 406A. Survey of Spanish American Literature (3)
- Spanish 406B. Survey of Spanish American Literature (3)
- Television, Film and New Media 363. International Cinema (3) [Maximum GE credit 3 units]
- Theatre 460A. History of the Theatre (3)
- Theatre 460B. History of the Theatre (3)
- * Theatre 465. Theatre of Diversity (3)
- * Women's Studies 340. Women in Modern European History (3)
- * Women's Studies 352. Women in Literature (3)
- * Women's Studies 360. Women's Sexuality and the Body (3)

* Cultural diversity course.

^ Taught in English.

Application for Graduation

Graduation is not automatic upon the completion of requirements. Students who intend to graduate must take the initiative. When they believe they are eligible, they should file an application with the Office of the Registrar. Deadlines by which applications must be received in the Office of the Registrar are published each year in the fall semester *Class Schedule*. A nonrefundable application fee of \$35.00 is required.

All requirements must be completed by the graduation date. Candidates for graduation are not eligible to register for terms subsequent to the graduation date unless an application for readmission as a post-baccalaureate 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 March.

Summary of Curricula Offered

Majors	Applied Arts and Sciences		Liberal Arts and Sciences	Graduate Curricula		
	BA, BFA	BS	BA	MA, MFA	MS, EdS	AuD, PhD, EdD
Accountancy	—	—	—	—	MS	—
# Accounting	—	BS	—	—	—	—
Aerospace engineering	—	BS	—	—	MS	—
Afro-American studies	—	—	BA	—	—	—
Anthropology	—	—	BA	MA	—	—
Applied mathematics	—	—	—	—	MS	—
Art	BA	—	BA	MA, MFA	—	—
Asian studies	—	—	BA	MA	—	—
Astronomy	—	BS	BA	—	MS	—
Audiology	—	—	—	—	—	AuD
Bioengineering	—	—	—	—	MS	—
Biology	—	BS	BA	MA	MS	PhD
Biomedical quality systems	—	—	—	—	MS	—
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	—	—	—
Communication	BA	—	BA	MA	—	—
Communicative disorders	—	—	BA	MA	—	PhD
Comparative literature	—	—	BA	—	—	—
Computational science	—	—	—	—	MS	PhD
Computer engineering	—	BS	—	—	—	—
Computer science	—	BS	—	—	MS	—
Counseling	—	—	—	—	MS	—
Creative writing	—	—	—	MFA	—	—
Criminal justice administration	—	BS	—	—	—	—
Criminal justice and criminology	—	—	—	—	MS	—
Dance	BFA	—	BA	—	—	—
Ecology	—	—	—	—	—	PhD
Economics	—	—	BA	MA	—	—
Education	—	—	—	MA	—	PhD
Educational leadership	—	—	—	—	—	EdD
Educational technology	—	—	—	—	—	EdD
School psychology	—	—	—	—	EdS	—
Teaching and learning	—	—	—	—	—	EdD
Electrical engineering	—	BS	—	—	MS	—
Engineering	—	—	—	—	MEng	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	—	BS	BA	MA	MS	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	—	—	—	—
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	—	—	—	—	MSW/JD	—
Kinesiology	—	BS	—	MA	—	—
Latin American studies	—	—	BA	MA	—	—
Latin American studies/business administration	—	—	—	MBA/MA	—	—
Liberal arts and sciences	—	—	—	MA	—	—
Liberal studies	BA	—	—	—	—	—
Linguistics	—	—	BA	MA	—	—
# Management	—	BS	—	—	—	—
# Marketing	—	BS	—	—	—	—
Mathematics	—	BS	BA	MA	—	—
Mathematics and science education	—	—	—	—	—	PhD
Mechanical engineering	—	BS	—	—	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	—	—	—	—	MS/MS	—

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, BFA	BS	BA	MA, MFA	MS, EdS	AuD, PhD, EdD
Philosophy	–	–	BA	MA	–	–
Physical science	BA	–	–	–	–	–
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	–	BS	–	MA	–	–
Theatre arts	BA	–	–	MA, MFA	–	–
Urban studies	–	–	BA	–	–	–
Vocational education	BVE	–	–	–	–	–
Women's studies	–	–	BA	MA	–	–

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

Emphases and Concentrations

An emphasis or concentration is defined as an aggregate of courses within a degree major designed to give a student specialized knowledge, competence, or skill. Completion of an emphasis or concentration is noted on the student's transcript and diploma for undergraduate students.

BACCALAUREATE MAJORS**Art** (BA, Liberal Arts and Sciences)**Emphases:**

- art history
- studio arts

Art (BA, Applied Arts and Sciences)**Emphases:**

- applied design
- graphic design
- interior design
- multimedia
- painting and printmaking
- sculpture

Biology (BS, Applied Arts and Sciences)**Emphases:**

- bioengineering
- cellular and molecular biology
- ecology
- evolution and systematics
- marine biology
- zoology

Business Administration (BS, Applied Arts and Sciences)**Emphasis:**

- agribusiness (IVC)

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

- biochemistry

Classics (BA, Liberal Arts and Sciences)**Emphases:**

- classical humanities
- classical language

Communication (BA, Liberal Arts and Sciences)**Emphases:**

- advertising
- public relations
- telecommunications and film

Economics (BA, Liberal Arts and Sciences)**Emphases:**

- international economics
- preprofessional studies

Environmental Sciences (BS, Applied Arts and Sciences)**Emphasis:**

- watershed science

European Studies (BA, Liberal Arts and Sciences)**Emphases in language:**

- French
- German
- Italian
- Portuguese
- Russian
- Spanish

Geography (BA, Liberal Arts and Sciences)**Emphases:**

- methods of geographical analysis
- natural resource and environmental
- physical geography
- urban and regional analysis

Geography (BS, Applied Arts and Sciences)**Emphasis:**

- geographic information science

Geological Sciences (BS, Applied Arts and Sciences)**Emphases:**

- general geology
- engineering geology
- geochemistry
- geophysics
- hydrogeology
- marine geology
- paleontology

German (BA, Liberal Arts and Sciences)**Emphasis:**

- German studies

Health Science (BS, Applied Arts and Sciences)**Emphasis:**

- 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
- 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)**Emphases:**

- actuarial science
- statistical computing

Theatre Arts (BA, Applied Arts and Sciences)**Emphases:**

- children's drama
- design and technology for theatre
- design for television and film
- performance

GRADUATE MAJORS**Applied Mathematics** (MS)**Concentrations:**

- dynamical systems
- mathematical theory of communication systems

Curricula Summary

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
education of the deaf
communicative sciences

Computational Science (MS)
Concentration:
professional applications

Counseling (MS)
Concentrations:
marriage and family therapy
school counseling
school psychology

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

Concentrations (MS):
geographic information science
watershed science

Nursing (MS)
Concentrations:
advanced practice nursing of adults and the elderly
community health nursing
nursing systems administration

Psychology (MS)
Concentrations:
applied psychology
clinical psychology (included within the Ph.D. program; not available separately)

Public Administration (MPA)
Concentrations:
city planning
criminal justice administration

Public Health
Concentrations (MPH):
biometry
environmental health

epidemiology
health behavioral science
health promotion
health services administration

Concentrations (MS):
industrial hygiene
toxicology
health services administration (public health and social work)

Social Work and Public Health (MS)
Concentration:
health services administration

Statistics (MS)
Concentration:
biostatistics

Theatre Arts (MFA)
Concentrations:
acting
design and technical theatre
musical theatre

Credentials Offered

Teaching Credentials
Multiple subject
Multiple subject cross-cultural, language and academic development (CLAD) emphasis
Multiple subject bilingual cross-cultural language and academic development (BCLAD) emphasis: Spanish
Single subject
Single subject cross-cultural, language, and academic development (CLAD) emphasis
Single subject bilingual 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
Anthropology
Art
Art history
Asian studies

Astronomy
Biology
Business administration
Chemistry
Chicana and Chicano studies
Child development
Chinese
Classics
Communication
Comparative literature
Computer science
Dance
Economics
Educational technology
Energy studies
Engineering
English
Environment and society
European studies
Finance
French
Geography
Geological sciences
German
Gerontology
Health science
History
History of science and technology
Humanities
Information systems
International security and conflict resolution
Italian
Islamic and Arabic studies
Japanese
Journalism
Judaic studies
Latin American studies
Linguistics
Management
Marketing
Mathematics
Media arts and technology
Military science
Music
Naval science
Oceanography
Philosophy
Physics
Political science
Portuguese
Psychology
Public administration
Public relations
Real estate
Recreation
Religious studies
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)

Cert. in accounting
Cert. in applied gerontology

Cert. in applied linguistics and English as a second language (ESL)
Cert. in artist diploma
Cert. in bilingual (Spanish) special education
Cert. in bilingual speech-language pathology
Cert. in biotechnology
Cert. in business administration (Imperial Valley campus only)
Cert. in children's literature
Cert. in communications systems
Cert. in community college teaching
Cert. in court interpreting (Imperial Valley campus only)
Certificates in cross-cultural language and academic development (CLAD or BCLAD)
Cert. in cultural and community trauma studies
Cert. in developing gifted potential
Cert. in distance education
Cert. in early childhood special education
Cert. in environmental studies
Cert. in family life education
Cert. in geographic information science
Cert. in instructional software design
Cert. in instructional technology
Cert. in mathematics specialist
Cert. in Mexico (BCLAD)
Cert. in personal financial planning
Cert. in preventive medicine residency
Cert. in public administration (Imperial Valley campus only)
Cert. in regulatory affairs
Cert. in rehabilitation administration
Cert. in rehabilitation technology
Cert. in single subject mathematics
Cert. in supported employment and transition specialist
Cert. in transborder public administration and governance
Cert. in translation studies (Spanish)
Cert. in United States-Mexico border studies
Cert. in workforce education and lifelong learning

The following non-credit programs are available through Extension only.

Cert. in business and branding development
Cert. in business and executive coaching
Cert. in business of wine
Cert. in casino gaming
Cert. in community economic development
Cert. in construction inspection technology
Cert. in construction practices
Cert. in distance education
Cert. in e-business
Cert. in government contract management
Cert. in hospitality
Cert. in human resource management
Cert. in lean manufacturing
Cert. in maritime careers
Cert. in marketing and media specialist
Cert. in medical office procedures
Cert. in meeting and events planning
Cert. in occupational health and safety management
Cert. in operations resource management
Cert. in personal fitness training
Cert. in project management
Cert. in solid modeling with solidworks
Cert. in technical and scientific writing
Cert. in telecommunications
Cert. in total quality management

Major and Credential Codes*

MAJOR CODE KEY:

- U = Undergraduate
G = Graduate
+ = Emphasis within another bachelor's degree
¢ = Concentration within another master's or Ph.D. degree
= Specializations within another bachelor's degree

MAJOR	MAJOR CODE
Accountancy	05021 G
+ Accounting	05021 U
Afro-American Studies	22111 U
Anthropology	22021 U & G
Applied Mathematics	17031 G
Art	10021 U & G
+ ¢ Art History	10031 U & G
+ Graphic Design	10091 U
+ Interior Design	02031 U
+ Multimedia	06991 U
Art - MFA	10022 G
Asian Studies	03011 U & G
Astronomy	19111 U & G
Audiology	12202 G
Biology	04011 U & G
Biomedical Quality Systems	09994 G
Business Administration	05011 G
+ Agribusiness (IVC)	01121 U
Business Administration and Juris Doctor (concurrent program)	05995 G
Business Administration and Latin American Studies (concurrent program)	49061 G
+ Chemical Physics	19081 U
Chemistry	19051 U & G
+ Biochemistry	19051 U
Chicana and Chicano Studies	22131 U
Child Development	08231 U & G
City Planning	02061 G
Classics	15041 U
Clinical Psychology	20031 G
Communication	06011 U & G
+ Advertising	06041 U
+ Media Management	06032 U
+ Public Relations	05992 U
+ Telecommunications and Film	06033 U
General Communication	15061 U
Communicative Disorders	12201 U & G
Comparative Literature	15031 U
Computational Science	07992 G
Computer Science	07011 U & G
Counseling	08261 G
Creative Writing	15071 G
¢ Criminal Justice Administration	21051 U & G
Criminal Justice and Criminology	22091 G
Dance	10081 U
Dance - BFA	10082 U
¢ Ecology	04201 G
Economics	22041 U & G
+ International Economics	22042 U

MAJOR

MAJOR CODE

Education (Ed.D.)	08291 G
Education	08011 G
¢ Counseling	08261 G
¢ Educational Leadership	08271 G
¢ Educational Research	08241 G
¢ Educational Technology	08992 G
¢ Elementary Curriculum and Instruction	08021 G
¢ Mathematics Education K-8	17012 G
¢ Policy Studies in Language and Cross-Cultural Education	08994 G
¢ Reading Education	08301 G
¢ Secondary Curriculum and Instruction	08031 G
¢ Special Education	08081 G
Engineering	09134 G
Aerospace Engineering	09021 U & G
Bioengineering	09051 G
Civil Engineering	09081 U & G
Computer Engineering	09094 U
Electrical Engineering	09091 U & G
¢ Environmental Engineering	09221 U & G
Mechanical Engineering	09101 U & G
Engineering Sciences/ Applied Mechanics	09012 G
English	15011 U & G
¢ Entrepreneurship	05997 G
Environmental Sciences	49011 U
Exercise Physiology	08355 G
Exercise Physiology and Nutritional Science (concurrent program)	08356 G
European Studies	03101 U
+ ¢ Finance	05041 U & G
+ Financial Services	05043 U
+ ¢ Financial and Tax Planning	05043 G
Foods and Nutrition	13061 U
French	11021 U & G
Geography	22061 U & G
Geological Sciences	19141 U & G
German	11031 U
Gerontology	21043 U & G
Health Science	12011 U
History	22051 U & G
Hospitality and Tourism Management	05081 U
Humanities	15991 U
¢ Human Resource Management	05151 G
+ ¢ Information Systems	07021 U & G
Interdisciplinary Studies	49993 U & G
¢ International Business	05131 U & G
International Security and Conflict Resolution	22103 U
Japanese	11081 U
Journalism	06021 U
Juris Doctor and Social Work (concurrent program)	21045 G
Kinesiology	08351 U & G
Language and Communicative Disorders	12201 G
Latin American Studies	03081 U & G

MAJOR

MAJOR CODE

Latin American Studies and Business Administration (concurrent program)	49061 G
Liberal Arts and Sciences	49017 G
Liberal Studies	49015 U
Linguistics	15051 U & G
+ ¢ Management	05061 U & G
+ ¢ Marketing	05091 U & G
Mathematics-B.A. degree	17011 U & G
Mathematics-B.S. degree	17031 U
Mathematics and Science Education	08997 G
Microbiology	04111 U & G
Modern Jewish Studies	15102 U
¢ Molecular Biology	04161 G
Music	10052 U
# Music-Performance	10041 U & G
Music	10051 G
Nursing	12031 U & G
Nutritional Sciences	13061 G
Nutritional Science and Exercise Physiology	08356 G
¢ Operations Management	05064 G
Philosophy	15091 U & G
Physical Science	19011 U
Physics	19021 U & G
¢ Physiology	04101 G
Political Science	22071 U & G
Psychology	20011 U & G
Public Administration	21021 U & G
Public Health	12141 G
¢ Health Behavioral Science	12143 G
Public Health and Social Work (concurrent program)	12991 G
Radiological Health Physics	12251 G
+ ¢ Real Estate	05111 U & G
Recreation Administration	21031 U
Regulatory Affairs	49045 G
Rehabilitation Counseling	12221 G
Religious Studies	15101 U
Rhetoric and Writing Studies	15013 G
Russian	11061 U
Russian and Central European Studies	03071 U
Social Science	22011 U
Social Work	21041 U & G
Social Work and Juris Doctor (concurrent program)	21045 G
Social Work and Public Health (concurrent program)	12991 G
Sociology	22081 U & G
Spanish	11051 U & G
Statistics	17021 U & G
¢ Systematics and Evolutionary Biology (Zoology)	04071 G
¢ Taxation	05022 G
Television, Film and New Media Production	06031 U & G
Theatre Arts	10071 U & G
Theatre Arts - MFA	10072 G
Undeclared	00000 U
Urban Studies	22141 U
Vocational Education	08395 U
Women's Studies	49991 U & G

* See following page for NUMERICAL LISTING OF MAJOR CODES and CREDENTIAL CODES.

Major and Credential Codes

NUMERICAL LISTING OF MAJOR CODES

MAJOR CODE	MAJOR	MAJOR CODE	MAJOR	MAJOR CODE	MAJOR
00000 U	Undeclared	09012 G	Engineering Sciences/Applied Mechanics	21041 U & G	Social Work
02031 U	+ Interior Design	09021 U & G	Aerospace Engineering	21043 U & G	Gerontology
02061 G	City Planning	09051 G	Bioengineering	21045 G	Social Work and Juris Doctor (concurrent program)
03011 U & G	Asian Studies	09081 U & G	Civil Engineering	21051 U & G	☐ Criminal Justice Administration
03071 U	Russian and East European Studies	09091 U & G	Electrical Engineering	22011 U	Social Science
03081 U & G	Latin American Studies	09094 U	Computer Engineering	22021 U & G	Anthropology
03101 U	European Studies	09101 U & G	Mechanical Engineering	22041 U & G	Economics
04011 U & G	Biology	09134 G	Engineering	22042 U	+ International Economics
04071 G	☐ Systematics Evolutionary Biology (Zoology)	09221 U & G	☐ Environmental Engineering	22051 U & G	History
04101 G	☐ Physiology	09994 G	Biomedical Quality Systems	22061 U & G	Geography
04111 U & G	Microbiology	10021 U & G	Art	22071 U & G	Political Science
04161 G	☐ Molecular Biology	10022 G	Art - MFA	22081 U & G	Sociology
04201 G	☐ Ecology	10031 U & G	+ ☐ Art History	22091 G	Criminal Justice and Criminology
05011 U & G	Business Administration	10041 U & G	# Music – Performance	22103 U	International Security and Conflict Resolution
05011 U	+ Agribusiness (IVC)	10051 G	Music	22111 U	Afro-American Studies
05021 G	Accountancy	10052 U	Music	22131 U	Chicana and Chicano Studies
05021 U	+ Accounting	10071 U & G	Theatre Arts	22141 U	Urban Studies
05022 G	☐ Taxation	10072 G	Theatre Arts - MFA	49011 U	Environmental Sciences
05041 U & G	+ ☐ Finance	10081 U	Dance	49015 U	Liberal Studies
05043 U	+ Financial Services	10082 U	Dance - BFA	49017 G	Liberal Arts and Sciences
05043 G	☐ Financial and Tax Planning	10091 U	+ Graphic Design	49045 G	Regulatory Affairs
05061 U & G	+ ☐ Management	11021 U & G	French	49061 G	Business Administration and Latin American Studies (concurrent program)
05064 G	☐ Operations Management	11031 U	German	49991 U & G	Women's Studies
05081 U	Hospitality and Tourism Management	11051 U & G	Spanish	49993 U & G	Interdisciplinary Studies
05091 U & G	+ ☐ Marketing	11061 U	Russian		
05111 U & G	+ ☐ Real Estate	11081 U	Japanese		
05131 U & G	☐ International Business	12011 U	Health Science		
05151 G	☐ Human Resource Management	12031 U & G	Nursing		
05992 U	+ Public Relations	12141 G	Public Health		
05995 G	Business Administration and Juris Doctor (concurrent program)	12143 G	☐ Health Behavioral Science		
05997 G	☐ Entrepreneurship	12201 U & G	Communicative Disorders		
06011 U & G	Communication	12201 G	Language and Communicative Disorders		
06021 U	Journalism	12202 G	Audiology		
06031 U & G	Television, Film and New Media Production	12221 G	Rehabilitation Counseling		
06032 U	+ Media Management	12251 G	Radiological Health Physics		
06033 U	+ Telecommunications and Film	12991 G	Social Work and Public Health (concurrent program)		
06041 U	+ Advertising	13061 U	Foods and Nutrition		
06991 U	+ Multimedia	13061 G	Nutritional Sciences		
07011 U & G	Computer Science	15011 U & G	English		
07021 U & G	+ ☐ Information Systems	15013 G	Rhetoric and Writing Studies		
07992 G	Computational Science	15031 U	Comparative Literature		
08011 G	Education	15041 U	Classics		
08021 G	☐ Elementary Curriculum & Instruction	15051 U & G	Linguistics		
08031 G	☐ Secondary Curriculum & Instruction	15061 U	General Communication		
08081 G	☐ Special Education	15071 G	Creative Writing		
08231 U & G	Child Development	15091 U & G	Philosophy		
08241 G	☐ Educational Research	15101 U	Religious Studies		
08261 G	Counseling	15102 U	Modern Jewish Studies		
08271 G	☐ Educational Leadership	15991 U	Humanities		
08291 G	Education (Ed.D.)	17011 U & G	Mathematics-B.A. degree		
08301 G	☐ Reading Education	17012 G	☐ Mathematics Education K-8		
08351 U & G	Kinesiology	17021 U & G	Statistics		
08355 G	Exercise Physiology	17031 G	Applied Mathematics		
08356 G	Nutritional Science and Exercise Physiology	17031 U	Mathematics-B.S. degree		
08395 U	Vocational Education	19011 U	Physical Science		
08992 G	☐ Educational Technology	19021 U & G	Physics		
08994 G	☐ Policy Studies in Language and Cross-Cultural Education	19051 U & G	Chemistry		
08997 G	Mathematics and Science Education	19051 U	Biochemistry		
		19081 U	Chemical Physics		
		19111 U & G	Astronomy		
		19141 U & G	Geological Sciences		
		20011 U & G	Psychology		
		20031 G	Clinical Psychology		
		21021 U & G	Public Administration		
		21031 U	Recreation Administration		

CODES FOR CREDENTIALS

CREDENTIAL	CODE
Single Subject Instruction	00100
Multiple Subject Instruction	00200
Reading/Language Arts Specialist	00410
B/CLAD Specialist	00440
Deaf and Hard of Hearing	00461
Special Education: Early Childhood Special Education	00435
Special Education: Mild/Moderate Disabilities	00468
Special Education: Moderate/Severe Disabilities	00469
Special Education: Physical and Health Impairments	00472
Administrative Services (Preliminary)	00501
Administrative Services (Professional Clear)	00502
School Nurse Services	00600
Pupil Personnel Services	
School Counseling	00802
Child Welfare and Attendance or	00801
School Social Work	00803
School Psychology	00804
Clinical or Rehabilitative Services:	
Language, Speech, and Hearing	00900
Language, Speech, Hearing, and Audiology	00902
Audiology	00903
Language, Speech, and Hearing including Special Class Authorization	00910
Language, Speech, and Hearing adding Special Class Authorization	00911

Course Abbreviations

ACCTG.....	Accountancy	HUM	Humanities
ARP	Administration, Rehabilitation and Post Secondary Education	IDS	Information and Decision Systems
A E	Aerospace Engineering	INT S	Interdisciplinary Studies
A S	Aerospace Studies	I B	International Business
AFRAS.....	Africana Studies	ISCOR.....	International Security and Conflict Resolution
AMIND	American Indian Studies	ITAL	Italian
ANTH	Anthropology	JAPAN	Japanese
ARAB	Arabic	JS.....	Jewish Studies
ART	Art	JOUR	Journalism
ASIAN	Asian Studies	LATAM	Latin American Studies
ASTR	Astronomy	LIB S	Liberal Studies
AUD	Audiology	LING	Linguistics
BIOL.....	Biology	MGT.....	Management
BQS.....	Biomedical Quality Systems	MKTG	Marketing
B A	Business Administration	MALAS.....	Master of Liberal Arts and Sciences
CHEM.....	Chemistry	MATH.....	Mathematics
CCS.....	Chicana and Chicano Studies	M S E	Mathematics and Science Education
CFD	Child and Family Development	MTHED	Mathematics Education
CHIN	Chinese	M E	Mechanical Engineering
C P	City Planning	MIL S	Military Science
CIV E	Civil Engineering	BIO	Molecular Biology
CLASS.....	Classics	MUSIC	Music
COMM.....	Communication	N SCI	Natural Science
C H E	Community Health Education	NAV S.....	Naval Science
C LT	Comparative Literature	NURS.....	Nursing
COMP	Computational Science	NUTR	Nutrition
COMPE	Computer Engineering	OCEAN.....	Oceanography
CS	Computer Science	PERS.....	Persian
CSP	Counseling and School Psychology	PHIL.....	Philosophy
CJA	Criminal Justice Administration	PHYS	Physics
DANCE.....	Dance	PLC.....	Policy Studies in Language and Cross-Cultural Education
ECON.....	Economics	POL S	Political Science
ED	Education	PORT	Portuguese
EDL	Educational Leadership	PSFA	Professional Studies and Fine Arts
EDTEC	Educational Technology	PSY	Psychology
E E	Electrical Engineering	P A	Public Administration
ENGR	Engineering	P H	Public Health
E M	Engineering Mechanics	REC	Recreation
ENGL	English	R A	Regulatory Affairs
ENV E	Environmental Engineering	REL S.....	Religious Studies
ENV S.....	Environmental Science	RWS.....	Rhetoric and Writing Studies
EUROP	European Studies	RUSSN.....	Russian
ENS	Exercise and Nutritional Sciences	SOCSI.....	Social Science
FIN	Finance	SWORK.....	Social Work
FRENC	French	SOC	Sociology
GMS	General Mathematics Studies	SPAN	Spanish
GEN S	General Studies	SPED	Special Education
GEOG	Geography	SLHS.....	Speech, Language, and Hearing Sciences
GEOL.....	Geological Sciences	STAT.....	Statistics
GERMN	German	TE	Teacher Education
GERO	Gerontology	TFM.....	Television, Film, and New Media
HHS.....	Health and Human Services	THEA	Theatre
HEBRW	Hebrew	WMNST.....	Women's Studies
HIST	History		
HTM	Hospitality and Tourism Management		

Courses and Curricula

Major Academic Plans (MAPs)

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

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

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

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

Courses and Curricula

Absence from Class

Instructor Initiated Drop Policy

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

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

Religious Observances

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

Schedule Adjustment Policy

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

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. Undergraduate students may enroll in these courses only if they are officially admitted to a blended or integrated program where undergraduate and credential coursework is included in the same program. Courses numbered at the 900 level are not applicable to other graduate programs.

Courses numbered 397 offered in regular sessions are professional advancement/training or tutorial/discussion classes that may accompany other credit courses and are not acceptable towards an undergraduate or graduate degree.

Courses numbered X-01 through X-79 and X-397 are Extension professional development units offered only through Extension to meet specific academic needs of community groups and are not acceptable toward an undergraduate or graduate degree.

The Unit or Credit Hour

In the listing of courses that follow, figures in parentheses indicate the unit value of the course. One unit or credit hour represents

50 minutes of recitation or lecture, together with the required preparation, or three hours of laboratory work or two hours of activities, each week for a semester.

Prerequisites for Undergraduate Courses

Students must satisfy course prerequisites (or their equivalent) prior to beginning the course to which they are prerequisite. Faculty have the authority to enforce prerequisites listed in the current catalog and current class schedule, to evaluate equivalent preparation, and to require proof that such prerequisites/preparation have been completed. Students who do not meet prerequisite requirements can be dropped within the first 12 days of the semester.

Semester in Which Courses Are Offered

In the listing of courses that follows, Roman numeral I indicates a course offered in the fall semester. Roman numeral II indicates a course offered in the spring semester. An "S" indicates a course offered in the summer term.

Following the course title are designations of credit and the semester in which the course is offered.

Examples:

- (3) I Three units. Offered in fall semester.
- (3) II Three units. Offered in spring semester.
- (3-3) Three units each semester. Year course normally beginning in fall semester.
- (3-3) I, II Three units each semester. Year course beginning either semester.

Although the university fully expects to carry out the arrangements planned in the list of courses, it reserves the right to make changes. Classes in which the enrollment does not come up to the minimum number set by the Board of Trustees of the California State University may not be offered or may be postponed.

Common Courses

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

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

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

Special Study (299, 499, 599)

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

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

Credit/No Credit Courses

Courses which are offered for credit/no credit are indicated by the symbols Cr/NC in the course title.

Accountancy

In the College of Business Administration

OFFICE: Student Services 2411

TELEPHONE: 619-594-5310

FAX: 619-594-3675

E-MAIL: andrew.barnett@sdsu.edu

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

Faculty

Emeritus: Brodshatzer, Butler, Ferrel, Garrett, Houston, Lightner, K., Meier, Meigs, Samuelson, Snudden, Toole, Whittington, Williamson
Director: Barnett
The Vern E. Odmark Chair in Accountancy: Chow
Professors: Anderson, Bailey, Barnett, Capettini, Chow, Grudnitski, Oestreich, Venable, Whittenburg
Associate Professors: Doran, Joh, Lightner, S.
Lecturer: Snyder

Offered by the School

Master of Business Administration.
Master of Science degree in accountancy.
Major in accounting with the B.S. degree in business administration.
Minor in accounting.
Certificate in accounting.

The Vern E. Odmark Chair in Accountancy

Established in recognition of Dr. Vern Odmark for his 25 years of teaching at SDSU, basic support is provided by contributions from friends, alumni, and corporations, including many major national accounting firms. The chair acknowledges the university's objective of continuing the high standards of teaching excellence and professionalism that characterized Odmark's career.

Dr. Chee W. Chow 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.

Business Honors Program

The Business Honors Program offers excellent upper division business students the opportunity to explore issues in our local, regional, and global business environments focusing on the social and ethical responsibility that business has to the community and society. Honors students will enroll in a one unit business honors seminar each semester. During their enrollment they will participate in activities to promote their academic and personal growth, documenting their work in a written portfolio.

Generally, students should apply to this program at the time of application to upper division business. Applicants must submit an essay with their application. Applicants must have a 3.6 cumulative GPA or good standing in the University Honors Program. Students not meeting these requirements may petition for admission to the program. Successful completion of the Business Honors Program will be recognized at graduation. Contact Dr. Carol Venable, School of Accountancy, for more information about this program.

Statement on Computers

Before enrolling in upper division courses in the College of Business Administration, students must be competent in the operation of personal computers, including word processing and spreadsheets. Business students are strongly encouraged to have their own computers capable of running word processing, spreadsheet, presentation, e-mail, and Internet applications such as those found in packages sold by major software publishers. Availability of on-campus computing resources can be limited due to increasing demand across the university.

Retention Policy

The College of Business Administration expects that upper division students will make reasonable academic progress towards the degree. Students earning less than a 2.0 average in their classes for two or more semesters may be removed from the upper division major and required to declare a non-business major.

Transfer Credit

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

Upper Division: It is the policy of the San Diego State University College of Business Administration to accept *upper division transfer credits* where (a) the course content, requirements, and level are equivalent to San Diego State University courses and (b) where the course was taught in an AACSB International—The Association to Advance Collegiate Schools of Business accredited program. Exceptions require thorough documentation evidencing the above standards.

Impacted Program

The accounting major is impacted. Before enrolling in any upper division courses in business administration, students must advance to an upper division business major and obtain a business major code. To be admitted to an upper division business major (accounting,

finance, financial services, real estate, information systems, management, or marketing), students must meet the following criteria:

- Complete with a grade of C or higher: Accountancy 220 and 230; Finance 240; Information and Decision Systems 180 and 290 (290 is not required for the accounting major); Economics 101 and 102; Mathematics 120 (or other approved calculus course); and either Statistics 119 or Economics 201. These courses cannot be taken for credit/no credit (Cr/NC);
- Complete a minimum of 60 transferable semester units;
- Have a cumulative GPA of 2.9;

Students who meet all requirements except the GPA may request to be placed on the waiting list. While all spaces are usually filled by eligible students, if there is room in the program after all the fully-qualified students have been accommodated, students will be admitted from the waiting list in GPA order. Contact the Business Advising Center (BA-448), 619-594-5828, for more information.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

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. Complete with a grade of C or higher: Accountancy 220, 230; Economics 101, 102; Statistics 119 or Economics 201; Mathematics 120 (or other approved calculus course); Finance 240; Information and Decision Systems 180. (24 units)

These prerequisite courses may not be taken Cr/NC; the minimum grade in each class is C. **Additional progress requirements must be met before a student is admitted to an upper division major.**

Graduation Writing Assessment Requirement. Information and Decision Systems 390W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

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
Information and Decision Systems 301	3
Management 350	3
General Education Explorations	3
	15

(Spring Semester)

(Students should take the GMAT early in this semester)
(Apply for Professional Accountancy Program - PAP)

Accountancy 322	6
Economics 320 or 321 or Finance 321	3
Information and Decision Systems 390W	4
Finance 323	3
	16

SENIOR YEAR (Fall Semester)

Accountancy 421	6
Information and Decision Systems 302	3
General Education Explorations	3
Marketing 370	3
	15

(Spring Semester)

Accountancy 422	3
Management 405 or Business Administration 404	3
Upper division accountancy elective	3
General Education Explorations	3
	12

*(Students **MUST** file for graduation and complete the B.S. degree in Business Administration **BEFORE** continuing on to the M.S. degree in Accountancy.)*

FIFTH YEAR (Fall Semester)

500-level accountancy elective	3
Graduate accountancy elective	3
Graduate accountancy elective	3
Graduate accountancy elective	3
Graduate non-accountancy elective	3
	15

(Spring Semester)

Graduate accountancy elective	3
Graduate accountancy elective	3
Graduate non-accountancy elective	3
Graduate non-accountancy elective	3
Accountancy 790	3
	15

Accounting Minor

The minor in accounting consists of a minimum of 24 units to include Accountancy 220, 230, 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 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 220, 230, 321*, and approved electives to make a total of 30 units. Accountancy 220 and 230 must be completed with a minimum grade of C (2.0) and the certificate coursework must be completed with a minimum grade point average of C (2.0).

Courses with relevant content may be substituted for the courses listed above with the approval of the certificate adviser. Courses in the certificate may not be counted toward the major or minor.

* General Education prerequisite waived for students in this program.

Courses (ACCTG)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

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

ACCTG 220. Managerial Accounting Fundamentals (3) I, II, S

Selection and analysis of accounting information for internal use by managers. Using financial information for planning and control purposes. (Formerly numbered Accountancy 202.)

ACCTG 230. Financial Accounting Fundamentals (3) I, II, S

Theory and practice of accounting applicable to recording, summarizing, and reporting of business transactions for external reporting and other external uses. Asset valuation; revenue and expense recognition; various asset, liability, and capital accounts. (Formerly numbered Accountancy 201.)

ACCTG 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

ACCTG 321. Integrative Accounting Topics I (6)

Prerequisites: Admission to Accountancy major, minor, or certificate. Minimum grade of C in both Accountancy 220 and 230. Completion of General Education requirement in Communication and Critical Thinking. **Proof of completion of prerequisites required:** Copy of transcript.

Information and accounting systems to satisfy decision making requirements of managers and external users. Introduction to taxation and tax considerations in selecting the form of organization. Includes topics typically contained in Intermediate Accounting I, Managerial and Cost Accounting, Accounting Information Systems, and Federal Income Tax courses. Not open to students with credit in Accountancy 325 and 326. Maximum credit six units for any combination of Accountancy 318, 319, 321.

ACCTG 322. Integrative Accounting Topics II (6)

Prerequisites: Minimum grade of C in Accountancy 321. Credit or concurrent registration in Information and Decision Systems 390W. **Proof of completion of prerequisites required:** Copy of transcript.

Financial and tax research methods, taxation topics, accounting information systems, financial reporting issues, preparation and use of financial statement information, and accounting issues of not-for-profit organizations. Includes material typically contained in Accounting Information Systems, Accounting for Not-for-Profit Organizations, Federal Income Tax, and Intermediate Accounting II.

ACCTG 325. Intermediate Managerial and Tax Accounting (3)

Prerequisites: Accountancy 220. Approved upper division business major or minor or other approved major. Not open to accounting majors.

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

ACCTG 326. Intermediate Financial Accounting (3)

Prerequisite: Accountancy 220. Approved upper division business major or minor or other approved major. Not open to accounting majors.

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

ACCTG 409. Field Study in Taxation (1) Cr/NC II

Prerequisite: Accountancy 321.

Income tax preparation in the field. Follows procedures of IRS VITA Program. IRS instruction followed by faculty supervised fieldwork. (Student must be available for special IRS tax school.)

ACCTG 421. Integrative Accounting Topics III (6)

Prerequisites: Information and Decision Systems 390W; Finance 323; minimum grade of C in Accountancy 322. **Proof of completion of prerequisites required:** Copy of transcript.

Audit of financial statements, consolidated financial reporting issues, and advanced financial accounting topics. Includes material typically contained in Auditing and Advanced Accounting.

ACCTG 422. Integrative Accounting Topics IV (3)

Prerequisites: Information and Decision Systems 301, 390W; minimum grade of C in Accountancy 322. Credit or concurrent registration in Accountancy 421. **Proof of completion of prerequisites required:** Copy of transcript.

Accounting information for managerial performance evaluation, advanced financial reporting issues, and international accounting. Include material typically contained in International Accounting, Advanced Accounting, and Management Control Systems.

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

Prerequisite: Consent of department chair.

Selected areas of concern in accountancy. See *Class Schedule* for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

ACCTG 498. Investigation and Report (1-3) I, II

Prerequisites: Senior standing and consent of instructor.

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

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

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

ACCTG 501. Advanced Financial Accounting (3) I, II

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

Advanced financial accounting topics. Partnerships, consolidations, foreign currency transactions and financial statements, accounting for derivatives and hedging, accounting for bankruptcy and reorganizations.

ACCTG 502. Advanced Managerial Accounting (3)

Prerequisite: Minimum grade of C in Accountancy 322; credit or concurrent registration in Accountancy 421. **Proof of completion of prerequisite required:** Copy of transcript.

Use of accounting information systems for managerial decision making. Introduction to decision-making situations which use accounting information for full or partial resolution. Consideration of uncertainty, decision theory and specific decision contexts.

ACCTG 503. Federal Taxation of Individuals (3) I, II, S

Prerequisites: Accountancy 220 and 230. Approved upper division business major, business minor, or other approved major. **Proof of completion of prerequisites required:** Copy of transcript.

Taxation of individuals, including income, deductions, credits, social security taxes, and property transactions.

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

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

Principles of fund accounting useful in state and local governmental units, hospitals, colleges, and universities. Comparisons with commercial accounting emphasized. Includes study of budgetary accounting, appropriations, encumbrances, internal checks and auditing procedures.

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

Prerequisites: Business major approved by the College of Business Administration and consent of instructor.

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

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

Administration, Rehabilitation and Postsecondary Education

OFFICE: 3590 Camino del Rio North, San Diego, CA 92108-1716
TELEPHONE: 619-594-6115
<http://interwork.sdsu.edu/arpe/>

In the College of Education

Accredited by the Council on Rehabilitation Education.

Faculty

Emeritus: Morey, Piland, Stevens
Chair: McFarlane
Professors: Atkins, Jacobs, McFarlane
Associate Professor: Sax
Assistant Professor: Olney
Lecturers: Nicodemus, Schroeder, Siegfried
Adjunct: Adametz

Offered by the Department

Master of Arts degree in education.
Concentration in educational leadership with a specialization in postsecondary education.
Concentration in educational leadership with a specialization in student affairs in postsecondary education.
Master of Science degree in rehabilitation counseling.
Bachelor of Vocational Education degree.
Certificate in community college teaching (refer to *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 (BVE) is a preparation and training program for persons counseling, training, or teaching youth and/or adults in academic and vocational subjects. This includes adult education teachers at the high school level, private career schools, ROP instructors, community college instructors, technical trainers in fire and law enforcement, occupational safety and health professions instructors, vocational rehabilitation and employment development (EDD) specialists, military instructors, and human resources personnel in the private sector.

The degree program is unique because it only accepts adult transfer students with substantial occupational experience in their designated teaching subject area and prior teaching or training experience. Qualifying students are granted upper division academic credit based on a comprehensive evaluation of their occupational and teaching experience, and professional growth.

Admission to the Major

To qualify for admission, applicants must meet CSU lower division general education requirements, or the adult students transfer option,

defined by Title 5 of the *California Code of Regulations*. The adult option requires possession of a high school diploma or the equivalent, no more than one term of full-time college enrollment in the past five years, earned grade point average of C or better in all college work attempted in the past five years, and completion of the lower division General Education sequence in writing and mathematics with grades of C or better. All BVE applicants must apply for admission to SDSU during the official admission filing period.

In addition, the following departmental criteria must be met for admission purposes:

BVE Supplemental Admissions Requirements

1. Seven or more years of full-time occupational experience that provides a foundation for teaching in a designated subject area;
2. Prior teaching or training experience, including 1,620 clock hours in a full-time position or 1,000 clock hours in a part-time capacity;
3. Completion of an ARPE admissions application that specifies academic preparation for the degree program, and educational and career goals;
4. Completion of a personal interview by an ARPE faculty member.

Completion of the Major. Completion of the major in vocational education requires the following academic pattern. At least 30 semester units must be taken in residency at SDSU. Current university policy allows applicants to transfer up to 24 residency units taken through SDSU's Open University. However, once admitted, Open University coursework is not permitted.

1. Completion of all lower division general education coursework currently required by SDSU, with a minimum of 60 units. For transfer students this entails either GE certification or completion of the Intersegmental General Education Transfer Curriculum (IGETC) from a California Community College. 70 units maximum
2. Completion of 21 units from the following professional teacher education courses: ARP 380, 381, 382, 496, 499 (2 courses), 565, 568, 596. 21 units
3. Evaluation of occupational experience, prior teaching, and professional growth by the State Board of Examiners of Vocational Teachers under the Swan Bill legislation (Education Code Section 89223) resulting in the award of upper division academic credit, up to 40 units. Student applications are provided by and coordinated through the department twice each year (September and March). The application requires a fee. 40 units maximum
4. Completion of current SDSU upper division general education requirements. 9 units
5. Completion of upper division writing competency (Writing Proficiency Assessment).

Total 120 units

Courses (ARP)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSE

ARP 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

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

Principles, practices, scope, and functions of adult and vocational education.

ARP 381. Developing Adult and Vocational Education (3) I, II, S

Needs assessment, task analysis, formulation of objectives, lesson plans, instructional techniques, and evaluation in adult and vocational settings.

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

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

Systematic observation, participation, and teaching under supervision in an occupational subject matter area. Application to take this course must be made in preceding semester.

ARP 496. Experimental Topics (1-4)

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

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

Prerequisite: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

ARP 565. Psychological Foundations of Adult and Vocational Education (3) I, II, S

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

Learning processes of adult and vocational education students in relationship to theories of learning and methods of teaching.

ARP 568. Adult and Vocational Education in Contemporary Society (3)

Prerequisite: Administration, Rehabilitation and Postsecondary Education 565.

Contemporary adult and vocational education in the U.S. Learning opportunities and environments, instructional delivery systems, and adult learning models.

ARP 596. Topics in Administration, Rehabilitation and Postsecondary Education (1-3)

Selected topics in administration, rehabilitation and postsecondary education. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

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

Aerospace Engineering and Engineering Mechanics

OFFICE: Engineering 308

TELEPHONE: 619-594-6074

E-MAIL: 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 and IV combined (Foundations and Explorations), nor more than 10 units from one department in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).

I. Communication and Critical Thinking: 9 units

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

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)

II. Foundations: 29 units

A. Natural Sciences and Quantitative Reasoning (17 units):

1. Physical Sciences (11 units)
Engineering students will take Chemistry 202 (4 units).
Physics 195 (3 units)
Physics 195L (1 unit)
Physics 196 (3 units)
2. Life Sciences (3 units)
3. Laboratory (satisfied under A.1. above)
4. Mathematics/Quantitative Reasoning
Engineering students will take Mathematics 150, 3 units applicable to General Education. You may **not** use Credit/No Credit grades.

B. Social and Behavioral Sciences (3 units)

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.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

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

AEROSPACE ENGINEERING MAJOR

FRESHMAN YEAR

<i>Fall Semester</i>	<i>Units</i>	<i>Spring Semester</i>	<i>Units</i>
Chemistry 202, General Chemistry	4	Physics 195, Principles of Physics	3
Mathematics 150, Calculus I	4	Physics 195L, Principles of Physics Lab....	1
ME 101, Solid Modeling I	2	Mathematics 151, Calculus II.....	4
General Education	6	General Education	9
AE 123, The Aerospace Engineer	1		
	<u>17</u>		<u>17</u>

SOPHOMORE YEAR

<i>Fall Semester</i>	<i>Units</i>	<i>Spring Semester</i>	<i>Units</i>
Mathematics 252, Calculus III	4	Physics 197, Principles of Physics	3
EM 200, Statics	3	EE 204, Principles of Elec. Engr.	3
General Education	6	EM 220, Dynamics	3
Physics 196, Principles of Physics	3	ENGR 280, Methods of Analysis	3
ME 203, Computer Programming and Applications	2	General Education	3
	<u>18</u>	ME 240, Intro. to Engineering Materials	3
			<u>18</u>

JUNIOR YEAR

<i>Fall Semester</i>	<i>Units</i>	<i>Spring Semester</i>	<i>Units</i>
ME 352, Thermodynamics and Heat Transfer	3	ENGR 510, Methods of Analysis	3
AE 301, Low Speed Aerodynamics	3	AE 302, High Speed Aerodynamics	3
CIV E 301, Intro. to Solid Mechanics	3	AE 303, Experimental Aerodynamics	2
CIV E 302, Solid Mechanics Lab.	1	AE 310, Aerospace Struc. Anal.	3
EM 340, Fluid Mechanics	3	AE 320, Aerospace Flight Mech.	3
EM 341, Fluid Mechanics Lab.	1	American Institutions	3
American Institutions	3		
	<u>17</u>		<u>17</u>

SENIOR YEAR

Fall Semester—All Specializations

	<i>Units</i>
AE 403, Aerosp. Engr. Senior Project	3
AE 410, Aerospace Struc. Dynamics	3
AE 430, Aircraft Propulsion Systems	3
AE 440, Aircraft Stab. and Control I	3
AE 460A, Aerosp. Engr. Applications	3
General Education	3
	<u>18</u>

Spring Semester—According to Specialization

Aerodynamics	<i>Units</i>	Aerospace Structures	<i>Units</i>	Propulsion & Flight Mechanics	<i>Units</i>
AE 460B, Aerosp. Engr. Applications	2	AE 460B, Aerosp. Engr. Applications.....	2	AE 460B, Aerosp. Engr. Applications....	2
General Education	6	General Education	6	General Education	6
<i>Choose any two courses:</i>		<i>Choose any two courses:</i>		<i>Choose any two courses:</i>	
AE 530, Rocket & Space Propulsion	3	AE 540, Arcrft. Stability & Control II.....	3	AE 520, Int. Aerospace Flight Mech.....	3
AE 550, Viscous Flow	3	EM 510, Fin. Ele. Meth. Aero. Struc.	3	AE 530, Rocket & Space Propulsion	3
EM 510, Fin. Elem. Meth. Aero. Struc.	3	EM 530, Composite Struc. Analysis	3	AE 540, Arcrft. Stability & Control II	3
	<u>14</u>		<u>14</u>		<u>14</u>

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

Courses

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSE IN AEROSPACE ENGINEERING (A E)

A E 123. The Aerospace Engineer (1)

Introduction to professional aerospace engineering. Emphasis on aeronautics and astronautics.

UPPER DIVISION COURSES IN AEROSPACE ENGINEERING (Intended for Undergraduates)

A E 301. Low Speed Aerodynamics (3)

Prerequisite: Credit or concurrent registration in Engineering Mechanics 340.

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

A E 302. High Speed Aerodynamics (3)

Prerequisites: Aerospace Engineering 301 and Mechanical Engineering 352.

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

A E 303. Experimental Aerodynamics (2)

One lecture and three hours of laboratory.

Prerequisites: Engineering Mechanics 341 and credit or concurrent registration in Aerospace Engineering 301.

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

A E 310. Aerospace Structural Analysis (3)

Prerequisite: Civil Engineering 301.

Methods of static structural analysis of problems encountered in flight of aerospace vehicles.

A E 320. Aerospace Flight Mechanics (3)

Prerequisites: Engineering Mechanics 220 and Engineering 280.

Two-body orbital mechanics including geocentric orbits and interplanetary transfers.

A E 403. Aerospace Engineering Senior Project (3)

One lecture and six hours of laboratory.

Prerequisites: Aerospace Engineering 302, 303, Engineering Mechanics 340.

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

A E 410. Aerospace Structural Dynamics (3)

Prerequisites: Credit or concurrent registration in Aerospace Engineering 310.

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

A E 430. Aircraft Propulsion Systems (3)

Prerequisite: Aerospace Engineering 302 or Mechanical Engineering 450.

Theory and performance characteristics of aircraft propulsion systems including reciprocating engines, turbojets, ramjets, etc.

A E 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.

A E 460A. Aerospace Engineering Applications (3) I

One lecture and five hours of design activity.

Prerequisites: Aerospace Engineering 302, 303 and 310.

Student projects in aerospace design.

A E 460B. Aerospace Engineering Applications (2) II

Six hours of laboratory.

Prerequisite: Aerospace Engineering 460A.

Student projects in aerospace design.

A E 496. Advanced Aerospace Engineering Topics (1-3) I, II

Prerequisite: Consent of instructor.

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

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

Prerequisite: Consent of instructor.

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

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

A E 520. Intermediate Aerospace Flight Mechanics (3)

Prerequisite: Aerospace Engineering 320.

Rigid-body dynamics with applications in spacecraft attitude dynamics.

A E 530. Rocket and Space Propulsion (3)

Prerequisite: Aerospace Engineering 430.

Equilibrium combustion thermodynamics. Performance of rocket propelled vehicles. Rocket propulsion fundamentals. Topics in chemical (solid and liquid) and electrical propulsion systems.

A E 540. Aircraft Stability and Control II (3)

Prerequisite: Aerospace Engineering 440.

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

A E 550. Viscous Flow (3)

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

Kinematics of fluid motion. Conservation of mass, momentum, and energy. Navier-Stokes equations; exact solutions. Boundary layer approximations, turbulent flow.

A E 596. Advanced Aerospace Engineering Topics (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)

E M 200. Statics (3) I, II

Prerequisites: Physics 195 and credit or concurrent registration in Mathematics 151. **Proof of completion of prerequisites required:** Copy of transcript or enrollment confirmation.

Force systems, equilibrium, structures, distributed forces, friction, virtual work, moments of inertia, vector algebra.

E M 202. Mechanics for Engineers (3) I, II

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

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

E M 220. Dynamics (3) I, II

Prerequisite: Engineering Mechanics 200 with a grade of C or better. **Proof of completion of prerequisite required:** Copy of transcript.

Kinetics of a particle; central force motion; systems of particles; work and energy; impulse and momentum; moments and products of inertia; Euler's equations of motion; vibration and time response; engineering applications.

E M 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES IN ENGINEERING MECHANICS (Intended for Undergraduates)

E M 340. Fluid Mechanics (3) I, II

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

Fluid statics. Laminar and turbulent flow of liquids and gases in pipes, nozzles, and channels. Dimensional analysis and modeling. Drag forces on moving or immersed objects.

E M 341. Fluid Mechanics Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Engineering Mechanics 340.

Flow measuring devices. Experimental applications of continuity, Bernoulli and momentum equations. Model studies. Pipe and channel flows. Flow visualization techniques. Operating characteristics of wind tunnel and water table.

E M 496. Advanced Engineering Mechanics Topics (1-3) I, II

Prerequisite: Consent of instructor.

Modern developments in engineering mechanics. See *Class Schedule* for specific content. Maximum credit six units for any combination of Engineering Mechanics 496, 499, and 596.

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

Prerequisite: Consent of instructor.

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

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

E M 510. Finite Element Methods in Aerospace Structures (3)

Prerequisite: Aerospace Engineering 410.

Static and dynamic analysis of aerospace structures utilizing finite element methods.

E M 530. Composite Structural Analysis (3)

Prerequisites: Engineering 280 and Civil Engineering 301.

Strength of composite materials; lamination theory; strength analysis of laminates; bending, buckling, and vibration of composite plates.

E M 585. Fundamentals of Micro-Electro-Mechanical Systems (MEMS) (3)

One lecture and four hours of laboratory.

Prerequisites for aerospace engineering majors: E E 204, E M 220, and M E 240.

Prerequisites for electrical engineering majors: E E 330, E M 202, and M E 240.

Prerequisites for mechanical engineering majors: E E 303, E M 220, and M E 240.

Microfabrication techniques, microsensors and microactuators, and scaling laws. A design project of a micro-device including schematic creation, test of performance, layout generation, and layout versus schematic comparison.

E M 596. Advanced Engineering Mechanics Topics (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*.

Aerospace Studies

In the College of Professional Studies and Fine Arts

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

Faculty

Chair: Rankin
Professor: Rankin
Assistant Professors: Curry, McKinley, Pinto

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-\$400 during the school year. Cadets participate in dialogues, problem solving, and other planning activities designed to develop leaders and managers. All coursework is done on campus with the exception of field trips and one field training encampment conducted at military bases.

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

Applying for the Program

SDSU students enroll in aerospace classes by signing up for courses in the same manner as other university classes. There is no advance application needed for the freshman or sophomore (AS100/200) classes. However, an orientation program, held just prior to the start of each term, is recommended and designed to give new cadets a broad, realistic introduction to Air Force officer training and provide them with helpful, important information on meeting academic requirements. Contact the Aerospace Studies Department as early as possible for additional information and sign-up procedures. The last two years of AFROTC (AS300/400) lead to the commission as a second lieutenant for which students must apply during the sophomore year. The application process involves taking the Air Force Officer Qualification Test (AFOQT), a physical examination, a physical fitness test, and a personal interview. Students from other institutions in the San Diego area are eligible to take AFROTC and should check with the department to obtain enrollment procedures. Veterans who can be commissioned by age 35 are also eligible for the program.

Aerospace Studies Minor

The minor in aerospace studies consists of a minimum of 15 units in aerospace studies, 12 of which must be upper division.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (A S)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

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

One hour and 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.

A S 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.

A S 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.

A S 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.

A S 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.

A S 200A-200B. Evolution of USAF Air and Space Power (1-1)

Meets one and one-half hours per week.

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

Study of air and space power through a historical perspective. Techniques for improving communication, discussion of Air Force heritage, leadership basics. Ethics, values, problem solving, and Air Force core values.

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

Required for advanced cadets, military orientation and flight familiarization. Credit granted for four- or six-week field training camp on basis of individual student application with approval of Aerospace Studies department chair.

UPPER DIVISION COURSES (Intended for successful AFROTC applicants or for those with special permission)

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

Air Force leadership and management principles. Responsibility and authority of an Air Force officer, subordinate leadership, ethics, standards of conduct, and officer values. Improving writing, briefing skills, counseling, and feedback process.

A S 400A-400B. National Security Affairs/Preparation for Active Duty (3-3)

Role of professional officer in democratic society, socialization within armed services, requisites for adequate national security forces. Political, economic, and social constraints on national defense structure and impact of technological and international developments on defense policy making.

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

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



Africana Studies

In the College of Arts and Letters

OFFICE: Adams Humanities 3131

TELEPHONE: 619-594-6531

Faculty

Emeritus: Chambers, Kornweibel

Chair: Weber

Associate Professors: Cornwell, Nesbitt, Toombs, Weber

Assistant Professor: Alkebulan

Offered by the Department

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

Minor in Afro-American studies.

The Major

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

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

Advising

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

Afro-American Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22111)

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

A minor is not required with this major.

Preparation for the Major. Africana Studies 101A, 101B, 170A, 270; and three units selected from Africana Studies 170B, 240, 250 or 260. (15 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units to include twelve units selected from one of the following areas and six units from each of the two remaining areas and Africana Studies 490. Up to six units, with appropriate content, of 496 and 499 in any combination may be applied to an area of specialization with the approval of the department chair.

Sociology and Psychology: Africana Studies 330, 331, 332, 341, 360*, 445, 448, 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)

Refer to *Courses and Curricula and University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

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

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

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

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

AFRAS 120. Composition (3)

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements. (See the Graduation Requirements section of catalog.) **Proof of completion of prerequisites required:** Copy of EPT or competency scores or verification of exemption; proof of credit (Cr) in Rhetoric and Writing Studies 92A or 92B or 97, or notification from the Department of Rhetoric and Writing Studies.

Designed to develop and enhance composition and reading skills. Focus on writing skills that contribute to academic growth and development. Not open to students with credit in Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101 or higher-numbered composition course.

AFRAS 140. Oral Communication (3) I, II

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

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

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

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

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements; and Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Development of intermediate expository writing skills and application of practical research principles. Not open to students with credit in Chicana and Chicano Studies 200, English 200, General Studies 260D, Linguistics 200, or Rhetoric and Writing Studies 200.

AFRAS 240. Africana Intellectual Thought (3)

Major theories and theory-makers and production of a global black intellectual tradition. Thoughts and writings of major black leaders as they relate to liberation, struggle, resistance, and cultural production.

AFRAS 250. Psychology of Blackness (3)

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

AFRAS 260. Africana Literary Study (3)

Oral and written literature produced by people of African descent. How African people use language to communicate their history and culture. Basic literary vocabulary, techniques, and theories for the non-specialist.

AFRAS 270. African Foundations of Africana Studies (3)

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

AFRAS 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

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

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

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

AFRAS 321. Black Political Participation in America (3)

Prerequisites: Africana Studies 101A or 170A or 170B. Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Afro-American political life and development in the United States. Interaction between Afro-Americans and various actors, institution processes, and policies of the American system of politics and governance.

AFRAS 322. African American Political Thought (3)

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

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

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

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

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

AFRAS 330. Black Child Development (3) II

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

AFRAS 331. The Black Family (3) I

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

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

Prerequisites: Africana Studies 101A or 101B.

Images of Black women in America and how those images have been distorted.

AFRAS 341. Cultural Patterns and African American Identity (3)

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

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

AFRAS 360. Communications and Community Action (3)

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

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

AFRAS 362. Rhetoric of Black America (3)

Prerequisite: Three units of Afro-American history or communications.

Rhetoric of Black Americans from David Walker to the present, role rhetoric has played in history of Black people and an analysis of Black audience in terms of the Black experience.

AFRAS 363. Sociocultural Analysis of Black Languages (3)

Prerequisite: Three units in Africana Studies.

Social and cultural functions of Black languages, verbal and non-verbal, in Afro-American life, and their profound impact on larger society. Also, a probe into issues concerning validity of Black English.

AFRAS 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.

AFRAS 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 twenty-first centuries.

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

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

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

AFRAS 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.

AFRAS 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.

AFRAS 422. Modern Civil Rights Movement (3)

Prerequisite: Africana Studies 101A or 101B.

Key events, strategies, and theoretical debates that emerged from struggle for black equality during modern civil rights movement in the United States from 1945 to present.

AFRAS 445. Ethnicity and Social Psychology (3)

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

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

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

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

AFRAS 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.

AFRAS 452. Race Relations Strategies (3)

Prerequisite: Africana Studies 101A or 250.

Systematic inquiry into contemporary strategies and systems employed to ease racial tensions. Trends and approaches in military, religious, economic, educational, and other social institutions examined, focusing on those that offer most promise in terms of facilitating racial harmony.

AFRAS 453. Issues in Mental Health: A Multicultural Perspective (3)

Prerequisite: Africana Studies 250.

Examination of multicultural mental health issues. Institutionalization, treatment, social policy funding, prevention, insurance, and community programs will be covered. Relevant research literature will be examined.

AFRAS 460. Black Images in Western Literature (3)

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

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

AFRAS 461. Studies in African American Literature (3)

Prerequisite: Africana Studies 101B or 260.

Focused studies in African American literature. Analysis of themes, techniques, etc., in fiction, poetry and/or drama.

AFRAS 462. The Harlem Renaissance (3)

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

AFRAS 463. Black Literatures of the World (3)

Prerequisite: Africana Studies 101B or 260 or completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Afro-American literature in context of world literatures by Blacks. Cross-cultural influences between Africa and the Americas.

AFRAS 464. Caribbean Literature (3)

Prerequisite: Africana Studies 101B or 260 or completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Political, religious, and musical paradigms in writing from 1900 to present. Politico-religious movements and related art forms (i.e. Rastafarian Reggae, Dub Poetry).

AFRAS 465. Africa in Literature and Film (3)

(Same course as French 465.)

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

African cultural history through literature and film. Consistency/variety of African cultural expressions and conventions in literature and film. Taught in English. (Formerly numbered French 425.)

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

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

Conceptual framework of African history and a comparative study of Afro-American institutions.

AFRAS 471A. Black History, 1492-1877 (3) I

Afro-Americanization and African survivals in the U.S.; origins and development of slavery; growth of free Black communities; anti-slavery movements and Black nationalism; slavery's end and dawn of freedom.

AFRAS 471B. Twentieth Century Black History (3) II

History of social movements and institutions from 1890 to the present. Focus on both leadership and life of the masses.

AFRAS 472. Comparative Slavery (3)

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

Comparative history of enslavement of Blacks throughout western hemisphere. Uses United States as baseline. Further comparisons to ancient Mediterranean, African, and Middle Eastern societies; Nazi Germany; contemporary Asian cultures.

AFRAS 480. History of Afro-American Jazz (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.

AFRAS 485. Blacks in the Arts (3)

Prerequisite: Africana Studies 101B.

Academic and artistic perspectives on Black participation in and contributions to the creative and performing arts. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

AFRAS 490. Senior Seminar (3)

Prerequisite: Open only to majors who have completed the first semester of junior year.

Capstone experience in which mastery of practice, theories, concepts, and issues central to Africana studies is demonstrated.

AFRAS 496. Experimental Topics (1-4)

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

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

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

American Indian Studies

In the College of Arts and Letters

OFFICE: Adams Humanities 3104

TELEPHONE: 619-594-6991

FAX: 619-594-2646

Faculty

Chair: Field

Professors: Kilpatrick, Parker

Associate Professor: Field

Adjunct: Cayleff, Colston, Cooper, Cox, Darby, Gamble, Garrett,
Greenfeld, Johnson, Ortiz, Reinholtz, Riggs, Robinson-Zanartu,
Watson, White

Offered by the Department

Minor in American Indian studies.

The Minor

A minor in American Indian studies provides students with a liberal education which focuses on cultural diversity. Individuals will attain competency in a broad understanding of the human condition which will relate closely to the areas of public relations, cultural pluralism, and race relations. Students pursuing careers in mass media, politics, journalism, and education will find that a minor in American Indian studies opens a new spectrum of human understanding and critical analysis of professional life.

The American Indian studies program focuses on individual elements that comprise the native American cultures. Using literature, art, history and politics as touchstones, students come to understand the individual as well as tribal character of the Indian peoples. The academic area also draws comparisons between American Indian life and the life of other members of American society.

Career opportunities for graduates include jobs in business, education, government, politics, social sciences, and health and human services. Students have also found positions in programs for Indian tribes and reservations. Federal agencies also seek people with knowledge about and experience with American Indian people and their culture. Agencies include the Bureau of Indian Affairs, the Indian Health Services, the Bureau of Land Management, and the U.S. Forestry Services.

American Indian Studies Minor

The minor in American Indian studies consists of a minimum of 15 units to include American Indian Studies 110; 12 of the 15 units must be in upper division courses selected from American Indian studies or other appropriate departments (e.g., anthropology or history) in consultation with the departmental adviser.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (AMIND)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

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

Major American Indian themes, beliefs, and practices and their impact on Western civilization through institutions, art, literature, philosophy, and religion.

AMIND 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

AMIND 300. American Indian Oral Literature (3) I

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

Pre-twentieth century American Indian oral and symbolic traditions including creation and origin legends, coyote stories, ceremonial songs, oratory, and memoirs.

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

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

AMIND 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.

AMIND 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.

AMIND 420. Indian Peoples of California (3)

Indian peoples of California. Their histories and cultures from oral traditions to contemporary issues. Focus on selected Indian tribes and communities.

AMIND 425. Indians of the Plains (3)

Indian peoples of the Plains. Their histories and cultures from oral traditions to contemporary issues. Focus on selected Indian tribes and communities.

AMIND 430. American Indian Poetry and Fiction (3) II

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

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

AMIND 435. Indians Through Film and Television (3)

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

AMIND 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.

AMIND 450. Perspectives on American Indian Identity (3)

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

Multidisciplinary perspectives on American Indian identity today. Topics include perspectives from political, ethnic, cultural and legal standpoints, both within and outside of indigenous communities, as well as diachronic variation in perspectives.

AMIND 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.

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.

AMIND 470. American Indian Religion (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 surveyed as they have been influenced by foreign elements and philosophies. Influences on values and tribalism as reflected through symbols and other measures.

AMIND 480. Issues in American Indian Education (3)

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

Cross-cultural differences in learning styles, emphasis on Native American styles. Cross-cultural differences in child socialization related to readiness for school. Literacy-related practices in oral communities. Bilingual education in Native American communities. Local educational empowerment.

AMIND 485. Federal Indian Law (3)

Prerequisite: American Indian Studies 110, 320, or 440.

Legal relationship between the United States and Indian people and Indian tribes as field of Indian law was developed and has changed over the years until the present.

AMIND 496. Topics in American Indian Studies (1-3)

An undergraduate seminar. See *Class Schedule* for specific content. Maximum credit six units. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

AMIND 499. Special Study (1-4)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.



Anthropology

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
<http://www-rohan.sdsu.edu/~anthro>

Faculty

Emeritus: Goldkind, Greenfeld, Henry, Himes, Leach, Lippold, Moore, Pendleton, Rohrl, Rollefson, Watson, Whitney

Chair: Greenfeld

Professor: Ball

Associate Professor: Gamble, Mallios

Assistant Professors: Mayes, 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)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirements. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C

(2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

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, 449, 450, 452, 457, 471, 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, 508, 522, 529, 535, 583.

Anthropology Minor

The minor in anthropology consists of a minimum of 18 units in anthropology to include Anthropology 101, 102, and 12 upper division units in anthropology selected from:

Area/Regional: Six units selected from Anthropology 349, 350, 442, 444, 445, 446, 449, 450, 452, 457, 471, 499, 582.

Methods: Three units selected from Anthropology 301, 302, 303, 304, 312, 410, 432, 439, 495, 499, 500, 505, 520, 531, 560, 561, 580, 583.

Theory/Topical: Three units selected from Anthropology 402, 406, 422, 424, 430, 483, 499, 508, 522, 529, 535, 583.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (ANTH)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

ANTH 101. Human Biocultural Origins (3) I, II (CAN ANTH 2)

Note: Cannot be used for General Education in combination with Geography 101 or 103.

Humankind's place in nature; fossil evidence for hominid evolution; evolutionary theory; racial, clinal and genetic variability; relationship of physical and cultural adaptations; the rise of civilization.

ANTH 102. Introduction to Cultural Anthropology (3) 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.

ANTH 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES
(Intended for Undergraduates)

ANTH 301. Principles of Physical Anthropology (3)

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 101.

Primate comparative anatomy and human paleontology. Physical measurement of the living subject and skeletal specimens. The statistical treatment of data in physical anthropology. Applications of physical anthropology in industry and medicolegal problems.

ANTH 302. Principles of Archaeology (3)

Prerequisite: Anthropology 101.

History, method, and theory of archaeological data acquisition and interpretation. Methods of data recovery and analysis suitable to resolution of historical and processual questions. Archaeological examples from a worldwide sample of prehistoric and historic societies.

ANTH 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.

ANTH 304. Principles of Anthropological Linguistics (3)

Prerequisite: Anthropology 102.

Structural nature of language. How languages differ, change and influence each other. Language families of the world. Significance of language for human social life in a variety of cultures.

ANTH 312. Archaeological Field Techniques (3)

Six hours of activity.

Prerequisite: Anthropology 302.

Archaeological excavation of significant sites in San Diego. Techniques of excavation, recording, and surveying.

ANTH 349. Roots of Civilizations (3)

Prerequisite: Open only to upper division students who have completed the General Education requirement in Foundations II.C., Humanities.

Origins and major attributes common to civilizations. Form and function of fundamental characteristics in different civilizations. Examples taken from Africa, Asia, the Near East and the New World.

ANTH 350. Cultures Around the Globe (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Cultural patterns of representative peoples. Industries, arts, social organization and supernaturalism considered with view to environmental adjustment, historical development and functional interrelation. Ethnological theories reviewed and applied in interpreting illustrative societies.

ANTH 402. Dynamics of Biocultural Diversity (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Interaction of biology and culture in human populations. Relating genetic and cultural processes to the changes in human populations over time.

ANTH 406. Nonhuman Primates (3)

Prerequisite: Anthropology 101.

Basic aspects of nonhuman primates, geographical distribution, ecology (habitat, diet), external and internal morphology, locomotion and social behavior, reproduction and development.

ANTH 410. Language in Culture (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Survey of anthropological interests in the study of language and of linguistic interests in the sociocultural context of language.

ANTH 422. Music and Culture (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.C., Humanities required for non-majors.

How the forms, functions and meanings of music vary crossculturally. Understanding a society's music historically, holistically and experientially, with emphasis on non-Western music. Universals of music and music use. Ethnological theories of music and music change.

ANTH 424. The Supernatural in Cross-Cultural Perspective (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Magic and religion. Conceptions of the supernatural in a cross section of world's cultures. Anthropological theories relating to supernatural beliefs and practices.

ANTH 430. Anthropology of Law and Dispute Processing (3)

Prerequisite: Anthropology 102, and completion of the General Education requirement in Foundations II.B, Social and Behavioral Sciences required for nonmajors.

Law, social control, and dispute processing studied in sociocultural context. Law in Western society compared with "law-ways" in a number of traditional or nonindustrialized cultures. Basic concepts and theories about law examined crossculturally.

ANTH 432. Principles of Personality in Culture (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Principles related to the determinants of human behavior contained in culture. Studies of behavior crossculturally.

ANTH 439. Cultural Comparisons Through Film (3)

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

Principles of cultural anthropology to include signs and proxemics, cultural prerequisites, kinship and social organization, and law and values. Feature and documentary films.

ANTH 442. Cultures of South America (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Indian cultures in terms of origins, migration, relation to habitat, cultural variation and relevance to contemporary trends. Development of Inca civilization, the effects of the Spanish conquest and its aftermath.

ANTH 444. American Cultures (3)

An "inside-out" view of America. What culture has to do with feeling like an American. Theory and method in anthropology. Approaches include subcultures, American values, and mass media.

ANTH 445. Ethnology of North America (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Native cultures and the role of environmental and historical factors in North America.

ANTH 446. Native Peoples of the Southwest (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Indian cultures of the American Southwest in historic times; ecological adaptations, responses to white contact, adaptations to modern American life.

ANTH 449. Cultures of Sub-Saharan Africa (3)

Prerequisites: Anthropology 102, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Indigenous peoples and cultures of Africa south of the Sahara. Comparison of cultural traditions, social organization, and modern trends in newly emergent nations of the area.

ANTH 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.

ANTH 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.

ANTH 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.

ANTH 471. Archaeology of North America (3)

Prerequisite: Anthropology 101 or 102.

Origins of the American Indian and survey of the main prehistoric cultures of the North American continent.

ANTH 483. Health and Nutrition in Antiquity (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.

ANTH 495. Internship in Applied Anthropology (1-3) Cr/NC

Prerequisites: Anthropology 301, 302, 303, 304.

Supervised field placement of students in campus or community organization, museums, cultural resource management firms, social service and development agencies, forensic laboratories and other offices including business firms where concepts and principles of anthropology can be put into practice. May be repeated for maximum credit three units.

ANTH 496. Experimental Topics (1-4)

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

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

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

ANTH 500. Primate Social Behavior (3)

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 101.

Analysis of modes of primate socialization and development of social behavior with emphases on communication, group structure, aggression, and sex. Various methods of analysis and observation practiced utilizing primate collection at the San Diego Zoo.

ANTH 505. Human Osteology (3)

Two lectures and three hours of laboratory.

Prerequisite: Anthropology 101. Recommended: Anthropology 301 and/or Biology 212.

Identification of individual bones and teeth; sex, age, and racial variation; stature reconstruction; continuous and discontinuous morphological variations; paleopathology. Training in observations, measurements, and analyses.

ANTH 508. Medical Anthropology (3)

Prerequisite: Anthropology 101 or 102.

Evolution and ecology of disease, medical beliefs and practices in non-Western cultures, and complexities of health care delivery in pluralistic societies.

ANTH 520. Ethnographic Field Methods (3)

Prerequisite: Anthropology 102.

Problems and techniques of field work in ethnographic and social anthropological research; field work projects conducted using various qualitative and quantitative research techniques. Students work with informants in various settings.

ANTH 522. Economic Anthropology (3)

Prerequisite: Anthropology 102.

Integrates analyses of production, distribution, and consumption of goods and services with study of cultures. Interrelated economic, social, and cultural thought; classifications of disparate economies and reciprocity.

ANTH 529. Urban Anthropology (3)

Prerequisite: Anthropology 102.

Urban adaptations of past and present societies. Descriptive topics and applied concerns regarding urban origins, migrations, kinship, ethnicity, stratification, and change. Ethnographic examples drawn from Western and non-Western societies.

ANTH 531. Applied Anthropology (3)

Prerequisite: Anthropology 102.

Application of anthropological concepts to solve human problems in a wide range of areas including research such as social impact assessment and evaluation, and interventions such as cultural brokerage and community development. Examples of applied work used from both western and non-western societies.

ANTH 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.

ANTH 560. Advanced Archaeological Field Techniques (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.

ANTH 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.

ANTH 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.

ANTH 582. Regional Anthropology (3)

Prerequisite: Anthropology 102.

Study of societies in a major geographical region of the world such as Africa, the Arctic, East Asia, Europe, Latin America, the Middle East, North America, Oceania, or South Asia. See *Class Schedule* for specific content. May be repeated with new content. Maximum credit six units.

ANTH 583. Topical Anthropology (3)

Prerequisite: Anthropology 102.

Study of a major subdiscipline such as political anthropology, economic anthropology, social anthropology, psychological anthropology, cultural ecology, applied anthropology, anthropological genetics, or environmental archaeology. See *Class Schedule* for specific content. May be repeated with new content. Maximum credit six units.

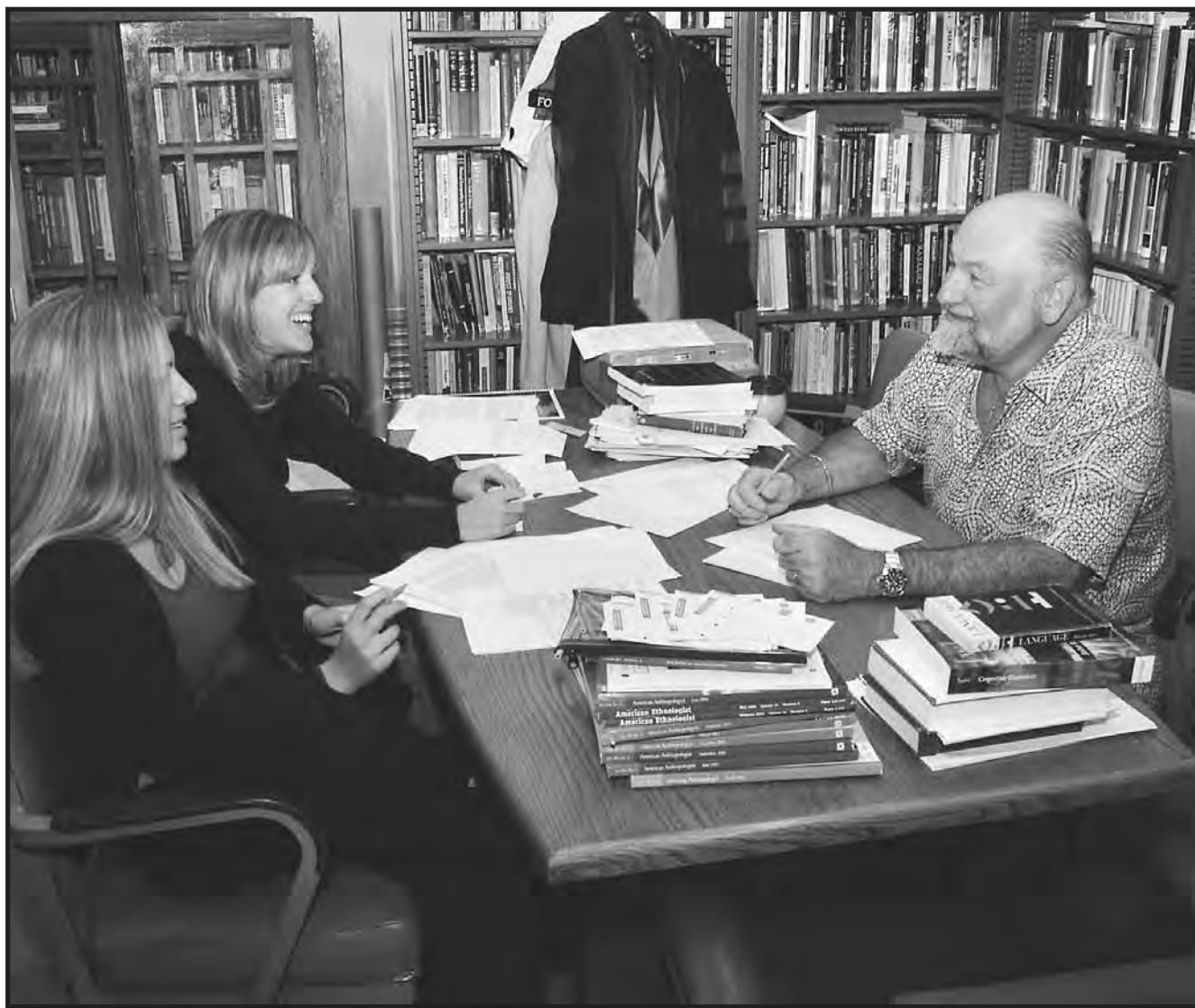
ANTH 596. Topics in Anthropology (1-3)

Prerequisite: Consent of instructor.

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

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.



Arabic

In the Department of Linguistics and Oriental Languages
In the College of Arts and Letters

OFFICE: Business Administration 327

TELEPHONE: 619-594-5268

FAX: 619-594-4877

<http://www-rohan.sdsu.edu/dept/linguist/index.html>

Faculty

Chair: Kaplan

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.

Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Arabic to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Arabic 201 or the equivalent level of achievement. The usual sequence of coursework is Arabic 101, 102, 201, and 202. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

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

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. **Four years** of high school level language count as the equivalent of three college semesters, thus fulfilling the language requirement.

Courses (ARAB)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

No credit will be given for Arabic 101, 102, 201, 202, 301, 302 taken out of sequence.

LOWER DIVISION COURSES

Native speakers of Arabic will not receive credit for taking lower division courses in Arabic except with advance approval from the department.

No credit will be given for lower division courses taken after successfully completing any upper division Arabic course taken in Arabic.

ARAB 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.

ARAB 102. Elementary Arabic II (4)

Prerequisite: Arabic 101 or two years of high school Arabic.

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.

ARAB 201. Intermediate Arabic I (4)

Prerequisite: Arabic 102.

Further development of speaking, listening, reading, and writing skills, with emphasis on the language of everyday conversation.

ARAB 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 COURSES (Intended for Undergraduates)

All upper division courses in Arabic are taught in Arabic unless otherwise stated.

ARAB 301. Advanced Arabic I (4)

Prerequisites: Arabic 202; and completion of the General Education requirement in Foundations II.C., Humanities.

Advanced facility in oral expression and writing for practical purposes; exposure to various dialects through newspaper and media Arabic; elements of literary and classical language.

ARAB 302. Advanced Arabic II (4)

Prerequisites: Arabic 301; and completion of the General Education requirement in Foundations II.C., Humanities.

Continuation of Arabic 301. More advanced writing and longer expository texts. Reading modern and classical texts.

ARAB 330. Arabic Culture (3)

Prerequisites: Upper division standing; and completion of the General Education requirement in Foundations II.C., Humanities.

Cultures of Arabic speaking peoples of the Near East, Middle East, and North Africa, as reflected in literature, the arts, history, political and social institutions. Taught in English

ARAB 496. Topics in Arabic Studies (1-4)

Topics in Arabic language, literature, culture, and linguistics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit eight units.



Art

In the College of Professional Studies and Fine Arts

OFFICE: Art 505

TELEPHONE: 619-594-6511

FAX: 619-594-1217

E-MAIL: artinfo@mail.sdsu.edu

<http://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.

The School of Art, Design and Art History is an impacted program. Therefore, students may enroll in art courses only to the maximum units allowed for credit towards graduation. Students enrolling in a course beyond the maximum allowable units will be disenrolled.

Faculty

Emeritus: Baker, K., Berg, Dirks, Dominguez, Dumlao, Esser, Fisch, Frick, Higgins, Hopkins, Hunter, Longenecker, Miller, Moaney, Orth, Perczel, Ray, Rigby, Rogers, Shirk, Wallace
Interim Director: Rigby
Professors: Baker, R., Burkett, Cooling, Cotten, Hayakawa, Maruyama, Merritt, Nelson, Roberts-Fields, Yapelli
Associate Professors: Berelowitz, Mansfield, Nakamura, Siprut
Assistant Professors: Johnson, Keely, Molsawat, Stringfellow
Lecturers: Atwater, Bendeler, Burgess, Carlson, Fobes, Hewitt, Hughes-Oelrich, Litrownik, Matzigkeit, Palese, Shigley, Trepchina, Williams, Woods

Offered by the School of Art, Design and Art History

Master of Arts degree in art.
Master of Fine Arts degree in art.
Major in art with the B.A. degree in liberal arts and sciences.
 Emphasis in art history.
 Emphasis in studio arts.
Major in art with the B.A. degree in applied arts and sciences.
 Emphasis in applied design.
 Emphasis in graphic design.
 Emphasis in interior design.
 Emphasis in multimedia.
 Emphasis in painting and printmaking.
 Emphasis in sculpture.
Teaching major in art for the single subject teaching credential.
Minor in art.
Minor in art history.

The Major

A significant concern of the School of Art, Design and Art History is the creative growth of its students. The school focuses on the development of sound undergraduate programs which provide a strong basic foundation in art. A major in art may be planned with an emphasis in applied design, with specialties in ceramics, furniture/woodworking, metalsmithing, jewelry, and textiles; art history; studio arts; graphic design; interior design; multimedia; painting and printmaking; and sculpture. A broad spectrum of courses for both majors and non-majors 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 self-fulfillment and creative growth, graduates of the school are employed in a variety of settings. The programs in graphic design, multimedia, and interior design have a preprofessional orientation supplemented by a strong liberal arts background. Interior design can lead to interior, architectural, landscape design or city planning. Graphic design can lead to magazine and book design; corporate design; branding; design for film, television, and the recording industry; information design; environmental graphic design; packaging; advertising; interface design for kiosks, CD-ROM, and the Internet; and type design. Multimedia prepares students in the areas of interactive and time-based media, such as web design, net art, gaming, DVD design, motion graphics, instructional systems, book arts, and publishing. The areas of painting, printmaking, and sculpture prepare students for professional attitudes toward the fine arts and the continuance of their educational experience in graduate schools with the goal of teaching at institutions of higher learning. The applied design program can be developed to specialize in ceramics, furniture design/woodworking, jewelry, metalsmithing, textile design and weaving.

Impacted Programs

Emphases in the School of Art, Design and Art History are impacted. Students must enter the university under the designated major code for selected programs. To be admitted to the selected program, refer to the program description for specific impacted criteria.

Art Major

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

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in art courses can apply to the degree for students with an emphasis in art history. For students majoring in art with an emphasis in studio arts no more than 57 units in art courses can apply to the degree.

This major in art may be planned with an emphasis in studio arts or art history.

A minor is not required with this major.

Emphasis in Art History (Major Code: 10031)

Impacted Program. The art history emphasis is designated as an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the art history emphasis, students must meet the following criteria:

- Complete with a grade of C or higher: Art 100, 101, 258, and 259. These courses cannot be taken for credit/no credit (Cr/NC);
- Have a cumulative GPA of 2.50 or higher;
- Students not meeting the minimum GPA may petition for special consideration.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Art 100, 101, 158, 258, 259, and 263. Art 100, 101, 258, and 259 must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). (18 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. French or

German is recommended for those students who plan to pursue graduate study in art history. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units in art history to include Art 578 and 593; and 21 units selected from Art 371 and 557 through 578, and Philosophy 541.

Emphasis in Studio Arts (Major Code: 10021)

Impacted Program. The studio arts emphasis is designated as an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the studio arts emphasis, students must meet the following criteria:

- Complete with a grade of C or higher: Art 100, 101, 102, 103, 258, and 259. These courses cannot be taken for credit/no credit (Cr/NC);
- Have a cumulative GPA of 2.50 or higher;
- Students not meeting the minimum GPA may petition for special consideration.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Art 100, 101, 102, 103, 203, 204, 216, 258, 259, and six units of art electives. Art 100, 101, 102, 103, 258, and 259 must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). (33 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 24 upper division units in art to include Art 403, 404, and 500; six units of art history; and nine units of art electives selected in consultation with an adviser.

Art Major

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

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Emphasis in Applied Design (Major Code: 10021)

Impacted Program. The applied design emphasis is designated as an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the applied design emphasis, students must meet the following criteria:

- Complete with a grade of C or higher: Art 100, 101, 102, 103, 258, and 259. These courses cannot be taken for credit/no credit (Cr/NC);
- Have a cumulative GPA of 2.50 or higher;
- Students not meeting the minimum GPA may petition for special consideration.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Art 100, 101, 102, 103, 220, 258, 259, and six units of art electives. Art 100, 101, 102, 103, 258, and 259 must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). (27 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units in art to include three units from each of the areas listed below, and six units of extended work in one of the areas; three units of art electives; and six units of art history.

Fiber: Art 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 (Major Code: 10091)

Impacted Program. The graphic design emphasis is designated as an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the graphic design emphasis, students must meet the following criteria:

- Complete with a grade of C or higher: Art 100, 101, 102, 103, 258, and 259. These courses cannot be taken for credit/no credit (Cr/NC);
- Have a cumulative GPA of 2.75 or higher;
- Students not meeting the minimum GPA may petition for special consideration.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Art 100, 101, 102, 103, 241, 242, 245, 258, 259; and three units of electives not to include Art 157. Recommended: Art 148, 210, 240. Art 100, 101, 102, 103, 258, and 259 must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). (30 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 33 upper division units in art to include six units of art history (Art 577 recommended); Art 340, 341, 342; 12 units selected from Art 441, 442, 445A, 445B, 445C, 450, 454, 541, 545; six units selected from Art 343, 344, 346, 440, 441, 442, 443, 444, 445A, 445B, 445C, 446, 450, 454, 540, 541, 542, 543, 544, 545, or any other art or art history course.

Emphasis in Interior Design (Major Code: 02031)

Impacted Program. The interior design emphasis is designated as an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the interior design emphasis, students must meet the following criteria:

- Complete with a grade of C or higher: Art 100, 101, 102, 103, 258, and 259. These courses cannot be taken for credit/no credit (Cr/NC);
- Have a cumulative GPA of 2.50 or higher;
- Students not meeting the minimum GPA may petition for special consideration.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Art majors wishing to enter one of the Interior Design upper division courses (Art 451, 453, 552, 553) must receive, as a condition of

junior level qualification, a *passing* evaluation of a portfolio of work submitted to the Interior Design Evaluation Committee. Any advance enrollment in the above-listed upper division courses will remain provisional until clearance of the portfolio review. Reviews are held prior to the beginning of the fall and spring semesters. See the School of Art, Design and Art History office for specific information concerning current policies pertaining to the review, content of the portfolio, and the schedule to be observed.

Preparation for the Major. Art 100, 101, 102, 103, 148, 247, 248, 249, 250, 251, 258, 259. Art 100, 101, 102, 103, 258, and 259 must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). (36 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units in art to include Art 352, 451, 452, 453, 552, 553; three units selected from Art 323, 325, 334, 436, 450, 547, 591; and six units of art history (Art 577 recommended).

Emphasis in Multimedia (Major Code: 06991)

Impacted Program. The multimedia emphasis is designated as an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the multimedia emphasis, students must meet the following criteria:

- Complete with a grade of C or higher: Art 100, 101, 102, 103, 258, and 259. These courses cannot be taken for credit/no credit (Cr/NC);
- Have a cumulative GPA of 2.75 or higher;
- Students not meeting the minimum GPA may petition for special consideration.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Art 100, 101, 102, 103, 240, 242, 258, 259; and six units of art electives, selected in consultation with an adviser, excluding Art 157. Art 100, 101, 102, 103, 258, and 259 must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). (30 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units in art to include six units of art history; 15 units selected from Art 340, 342, 344, 346, 348, 407, 408, 440, 442, 444, 445A, 445B, 446, 540, 543, 544, 545; Professional Studies and Fine Arts 330 (at least six units must be at the 400-level or higher); and six units of art electives.

Emphasis in Painting and Printmaking (Major Code: 10021)

Impacted Program. The painting and printmaking emphasis is designated as an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the painting and printmaking emphasis, students must meet the following criteria:

- Complete with a grade of C or higher: Art 100, 101, 102, 103, 258, and 259. These courses cannot be taken for credit/no credit (Cr/NC);
- Have a cumulative GPA of 2.50 or higher;
- Students not meeting the minimum GPA may petition for special consideration.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Art 100, 101, 102, 103, 203, 258, 259, and six units selected from Art 204, 210 or 216. Art 100, 101, 102, 103, 258, and 259 must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). (27 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 24 upper division units in art to include six units of art history, and 18 units selected in consultation with the adviser from Art 403, 404, 406, 407, 408, 410, 411, 416, 500, 502, 503, 504, 506, 511.

Emphasis in Sculpture (Major Code: 10021)

Impacted Program. The sculpture emphasis is designated as an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the sculpture emphasis, students must meet the following criteria:

- Complete with a grade of C or higher: Art 100, 101, 102, 103, 258, and 259. These courses cannot be taken for credit/no credit (Cr/NC);
- Have a cumulative GPA of 2.50 or higher;
- Students not meeting the minimum GPA may petition for special consideration.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Art 100, 101, 102, 103, 216, 217, 258, 259; and three units selected from Art 203, 204, 220, 231, 234. Art 100, 101, 102, 103, 258, and 259 must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). (27 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units to include Art 416 (six units), 498A, 516, 517; six units of art history; and six units selected from Art 323, 326, 331, 403, 404, 500, 516, 591.

Art Major

In Preparation for the Single Subject Teaching Credential With the B.A. Degree in Applied Arts and Sciences

(Major Code: 10021)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education.

This major may be used by students in teacher education as an undergraduate major for the B.A. degree in applied arts and sciences.

Impacted Program. The art major in preparation for the single subject teaching credential is an impacted program and specific criteria, which include a portion of the Preparation for the Major, are used to admit students. To be admitted to the art major in preparation for the single subject teaching credential, students must meet the following criteria:

- Complete with a grade of C or higher: Art 100, 101, 102, 103, 258 and 259. These courses cannot be taken for credit/no credit (Cr/NC);
- Have a cumulative GPA of 2.50 or higher;
- Students not meeting the minimum GPA may petition for special consideration.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Art 100, 101, 102, 103, 204, 220, 240, 258, 259; Psychology 101; and either Child and Family Development

270 or Psychology 230. Art 100, 101, 102, 103, 258, and 259 must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). (33 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Art 385; Art 340 or 407; Art 559; three units of art history selected from Art 561, 562, 564, 565, 569, 570; and 18 units selected from two sequences below:

Sequence 1. Art 344, 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, multimedia, painting, printmaking, and sculpture.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Art History Minor

The minor in art history includes a minimum of 21 units in art distributed as follows: Six units to include Art 258, 259, and three units selected from Art 158 or 263. Twelve units selected from Art 371 and 557 through 577, and with consent of instructor selected Art 596 courses with art history content.

Courses in the minor may not be used toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (ART)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

ART 100. Drawing and Composition (3) I, II (CAN ART 8)

Six hours.

The ordering of two-dimensional space through drawing.

ART 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.

ART 102. Drawing and Composition (3) I, II

Six hours.

Prerequisite: Art 100.

Line and value in drawing; emphasis on structure and proportion, sketching, gesture, and contour drawing.

ART 103. Three Dimensional Design (3) I, II (CAN ART 16)

Six hours.

Prerequisite: Art 101.

Introduction and investigation of design and theory, and practice in three dimensions.

ART 148. Visual Presentation I (3) I, II

Six hours.

Prerequisite: Art 100.

Design drawing techniques including interior presentation drawings, interior detailing, architectural drafting, and lettering. Tools and materials used in the design professions.

ART 157. Introduction to Art (3) I, II

An illustrated lecture course dealing with the meaning of art derived from an investigation of the principles of art. Designed to increase the understanding and appreciation of art.

ART 158. Arts of Native America, Sub-Saharan Africa, and Oceania (3)

Arts of diverse societies of Native America, Sub-Saharan Africa, and Oceania in cultural context. Art forms from ancient to contemporary period.

ART 203. Life Drawing (3) I, II

Six hours.

Prerequisite: Art 102.

Drawing from the nude model. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 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. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 210. Printmaking (3) I, II (CAN ART 20)

Six hours.

Prerequisites: Art 101 and 102.

Introduction and exploration of basic printmaking media. Emphasis on aesthetic and technical processes in intaglio, lithography, relief and serigraphy. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 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. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 217. Figurative Sculpture (3) I, II

Six hours.

Prerequisite: Art 103.

Creative experimentation with sculptural forms from the human figure. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 220. Design in Crafts (3) I, II

Six hours.

Prerequisite: Art 103.

Visual and structural form in crafts.

ART 231. Beginning Jewelry and Metals (3) I, II

Six hours.

Prerequisite: Art 220.

Design and construction of jewelry and small objects in non-ferrous metals. Basic fabrication, forming, and surface embellishment techniques for metal. Not open to students with credit in Art 331. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 234. Weaving (3) I, II

Six hours.

Prerequisite: Art 220.

Structure and design of woven fabrics. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 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. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 241. Graphic Design I (3) I, II

Six hours.

Prerequisites: Grade of C (2.0) or better in Art 100, 101, 102, 103. Computer proficiency required with working knowledge of vector graphics software consistent with current industry standards. **Proof of completion of prerequisites required:** Copy of transcript.

Principles of two-dimensional design applied to graphic form, including form/counter form, contrast, progression, and sequence.

ART 242. Typography I (3) I, II

Six hours.

Prerequisites: Grade of C (2.0) or better in Art 100, 101, 102, 103. Computer proficiency required with working knowledge of vector graphics and page layout software consistent with current industry standards. **Proof of completion of prerequisites required:** Copy of transcript.

Fundamentals of typography including history, theory, and practice with emphasis on study of letterforms and type design; principles of two-dimensional design and hierarchy applied to basic typographic layout. (Formerly numbered Art 243.)

ART 245. History of Graphic Design (3) I

Prerequisites: Grade of C (2.0) or better in Art 100, 101, 102, 103.

Proof of completion of prerequisites required: Copy of transcript.

Evolution of graphic communication from prehistory through post-modern design and the digital revolution.

ART 247. The House and Its Environment (3)

Architecture, interior design, landscape and city planning for forming the physical and aesthetic environment. Not open to students with credit in Art 347.

ART 248. Visual Presentation II (3) I, II

Six hours.

Prerequisites: Art 102, 103, 148. **Proof of completion of prerequisites required:** Copy of transcript.

Methods, materials, and tools of the professional environmental designer stressing art principles.

ART 249. Visual Presentation III (3) I, II

Six hours.

Prerequisite: Art 248. **Proof of completion of prerequisite required:** Copy of transcript.

Methods, materials, and tools of the professional environmental designer stressing art principles.

ART 250. The Contemporary House (3) I, II

Six hours.

Prerequisite: Art 248. **Proof of completion of prerequisite required:** Copy of transcript.

Elementary problems in neighborhood planning, house design, and landscaping.

ART 251. Interior Design I (3) I, II

Six hours.

Prerequisites: Art 102 and 103. **Proof of completion of prerequisites required:** Copy of transcript.

Elementary functional and aesthetic studies in interior space and form. Relationships of light, color, texture, shape and volume.

ART 258. Introduction to Art History (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.

ART 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.

ART 263. Asian Art (3)

Arts of Asian countries including China, India, and Japan from pre-historic to pre-modern times. Role of religious belief and state ideology in shaping visual characteristics of regional cultures in Asia.

ART 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

ART 323. Beginning Furniture Design and Woodworking (3) I, II

Six hours.

Prerequisite: Art 103. Recommended: Art 148.

Principles of design through the making of furniture. Basic techniques in woodworking and joinery. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 325. Beginning Throwing-Ceramics (3) I, II

Six hours.

Prerequisites: Art 102 and 103. Recommended: Art 220.

Basic methods of forming, decorating, glazing, and firing pottery forms with emphasis on the use of the potter's wheel. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 326. Beginning Handbuilt Ceramics (3) I, II

Six hours.

Prerequisites: Art 102 and 220.

Design and construction of handbuilt ceramic forms and application of glaze for surface enhancement. Traditional approaches and contemporary issues. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required. (Formerly numbered Art 225.)

ART 331. Beginning Jewelry and Metalwork (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. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 334. Advanced Weaving (3) I, II

Six hours.

Prerequisite: Art 220.

Total credit in Art 234, 334 and 534 limited to nine units.

Advanced problems in fabric design and weave construction including tapestry and rug weaving techniques. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 340. Photographic Imagery (3) I, II

Six hours.

Prerequisites: Grade of C (2.0) or better in Art 100, 101, 102, 103.

Proof of completion of prerequisites required: Copy of transcript. Recommended: Art 241 for graphic design majors.

Visual communication and expression using photographic media including photomechanical and digital processes and theory of color and light. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 341. Graphic Design II (3) I, II

Six hours.

Prerequisites: Grade of C (2.0) or better in Art 241, 242, 245. Computer proficiency required with working knowledge of vector graphics and page layout software consistent with current industry standards.

Proof of completion of prerequisites required: Copy of transcript.

Graphic form with emphasis on visual translation techniques, visual metaphor, signs and symbols.

ART 342. Typography II (3) I, II

Six hours.

Prerequisites: Grade of C (2.0) or better in Art 242 and 245. Computer proficiency required with working knowledge of vector graphics and page layout software consistent with current industry standards.

Proof of completion of prerequisites required: Copy of transcript.

Typographic layout and page systems including theories of visual organization, proportion, and grids with emphasis on expression and communication.

ART 343. Drawing and Illustration for Graphic Design I (3)

Six hours.

Prerequisite: Grade of C (2.0) or better in Art 203 or 204. **Proof of completion of prerequisite required:** Copy of transcript.

Visual notation, sketching, representational drawing, and visual translation related to graphic design.

ART 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. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 346. The Art of the Book I (3)

Six hours.

Prerequisite: Any 300- or 400-level art or design course.

Terminology, tools, materials, and reproduction processes related to the making of books; historical and contemporary book structures; and development of content in the form of image and text. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 347. The House and Its Environment (3) I

Architecture, interior design, landscape, and city planning for forming the physical and aesthetic environment, its simplicities and complexities. Not open to students with credit in Art 247.

ART 348. Three Dimensional Digital Media (3) II

Six hours.

Prerequisite: Grade of C (2.0) or better in Art 148 or 240 or 241 or 242.

Design communication utilizing digital media as it relates to three-dimensional objects and spatial environments.

ART 352. Methods and Materials of Interior Design (3) II

Prerequisites: Art 250 and 251.

Topics in successful professional practice including codes, legal liabilities, contractual agreements, project management. Lectures in field settings illustrate methods and materials of installation and explore environmental systems.

ART 357. World Art in Contemporary Life (3) II

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

World art and technology from ancient to post modern era and their relationship to contemporary culture and life. Gallery visits required.

ART 371. Medieval Art (3)

Prerequisite: Art 258.

Development of painting, sculpture, and architecture from time of Constantine through Gothic period.

ART 385. Art Education History and Practice (3)

Six hours.

Prerequisites: Art 102, 103, 258, 259.

History and theory of art education. Role of art in child and adolescent development, art heritage, diversity and equity in art education and teaching methodologies. For art majors interested in pursuing the single subject teaching credential.

ART 387. Art for Elementary School Teacher (3) I, II, S

Six hours.

Prerequisite: Art 101, or upper division standing and consent of instructor.

A design-crafts course that explores in depth materials and processes primarily used by the elementary school teacher.

ART 403. Advanced Life Drawing (3)

Six hours.

Prerequisite: Art 203.

Drawing the nude model. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 404. Intermediate Painting (3) I, II

Six hours.

Prerequisite: Art 204.

Concepts that enhance basic painting principles and a broad range of painting issues. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 406. Experimental Processes in Painting and Drawing (3)

Six hours.

Prerequisites: Art 203 and 204.

Structure in picture making. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 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. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 408. Color Photography as a Fine Art Medium (3) II

Six hours.

Prerequisite: Art 407.

Color photography as a fine art medium, including color theory, transparency and negative film exposure controls, darkroom techniques, and electronic flash and lighting techniques for color photography. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 410. Intaglio Printmaking (3)

Six hours.

Prerequisites: Art 203 and 210.

Creative intaglio—etching, drypoint, aquatint, engraving and variations. Emphasis on fine print quality and technical development. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 411. Lithography Printmaking (3) I, II

Six hours.

Prerequisites: Art 101 and 203.

Creative lithography—stone and plate planographic process. Emphasis on fine print quality and technical development. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 416. Intermediate Sculpture (3) I, II

Six hours.

Prerequisite: Art 216.

Individual investigation into sculpture ideas, methods and materials, including clay, metal, plastics, paper or wood. Individual development in sculpture. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 423. Intermediate Furniture Design and Woodworking (3) I, II

Six hours.

Prerequisite: Art 323.

Intermediate individual design: Exploration of materials, processes and function. Specialized techniques focusing on case construction, making of drawers and doors for furniture. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 425. Intermediate Ceramics (3) I, II

Six hours.

Prerequisites: Art 325 and 326.

Continuation of Art 325. Further development of knowledge, skills and philosophy of ceramics through individual creative projects. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 431. Intermediate Jewelry and Metalwork (3) I, II

Six hours.

Prerequisite: Art 231 or 331.

Further development of design and metalworking skills specifically related to jewelry. Specialized techniques such as casting, chasing, stone setting, die forming and enameling. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 432. Metalsmithing (3)

Six hours.

Prerequisite: Art 231 or 331

Creative design and techniques in metalsmithing. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 435. Nonwoven Textile Construction (3) I, II

Six hours.

Prerequisites: Art 102 and 103. Recommended: Art 220.

Textile structures with an emphasis on nonloom techniques. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 436. Textile Design (3) I, II

Six hours.

Prerequisites: Art 102 and 103. Recommended: Art 220.

Application of design for the textile surface, using a broad variety of media and processes appropriate for both the individual designer and commercial reproduction. Media include stencil, block, silk-screen, batik, and tie-dye. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 440. Intermediate Photographic Imagery (3)

Six hours.

Prerequisite: Grade of C (2.0) or better in Art 340.

Visual and creative expression using photographic media with emphasis on refining technical skills, including lighting.

ART 441. Information Graphics (3) I, II

Six hours.

Prerequisites: Grade of C (2.0) or better in Art 340, 341, 342. Computer proficiency required with working knowledge of vector graphics, page layout, and digital image editing software consistent with current industry standards. **Proof of completion of prerequisites required:** Copy of transcript.

Analysis and translation of complex information into visual communication systems.

ART 442. Typography III (3) I, II

Six hours.

Prerequisites: Grade of C (2.0) or better in Art 340, 341, 342. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, and motion graphics software consistent with current industry standards. **Proof of completion of prerequisites required:** Copy of transcript.

Typographic problem solving including more complex text materials and type with image.

ART 443. Drawing and Illustration for Graphic Design II (3) I, II

Six hours.

Prerequisite: Grade of C (2.0) or better in Art 343. **Proof of completion of prerequisite required:** Copy of transcript.

Drawing and illustration methods, materials, tools, and processes as they relate to graphic design. Maximum credit three units. Students may not re-enroll in this course after earning a grade of C or higher (or Cr). Copy of transcript required.

ART 444. Sequential Media (3) I, II

Six hours.

Prerequisite: Grade of C (2.0) or better in Art 240 and 341, or 344, or 348.

Study and presentation of sequential imagery. Maximum credit six units.

ART 445A. Leadership in Design (1) Cr/NC I, II

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.

ART 445B. Graphic Design Internship (3) Cr/NC I, II

Prerequisites: Grade of C (2.0) or better in two of the following: Art 441, 442, 450, 454, or 541, and portfolio review. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, motion graphics, and web design software consistent with current industry standards. **Proof of completion of prerequisites required:** Copy of transcript.

Field experience with practicing professionals. Maximum credit six units. (Formerly numbered Art 445.)

ART 445C. Senior Portfolio/Exhibition (3) II

Six hours.

Prerequisites: Grade of C (2.0) or better in two of the following: Art 441, 442, 450, 454, or 541, and portfolio review. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, motion graphics, and web design software consistent with current industry standards. **Proof of completion of prerequisites required:** Copy of transcript.

Planning, strategy, and development of a comprehensive body of design work to be professionally presented in a portfolio and/or exhibition format.

ART 446. The Art of the Book II (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. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 450. Packaging Design (3) I

Six hours.

Prerequisites: Grade of C (2.0) or better in Art 340, 341, 342. Computer proficiency required with working knowledge of vector graphics, page layout, and digital image editing software consistent with current industry standards. **Proof of completion of prerequisites required:** Copy of transcript.

Principles and theories of design: branding, typography, illustration, and photography applied to three-dimensional form within a specified social and cultural context with emphasis on strategy and concept; structure, functionality and materials; and modular systems.

ART 451. Interior Design II (3) I, II

Six hours.

Prerequisites: Art 249, 250, 251, and completion of portfolio requirement. **Proof of completion of prerequisites required:** Copy of transcript.

Survey, analysis and conceptual design methods of residential interiors stressing materials, equipment, components and structural detailing. Maximum credit six units.

ART 452. Interior Design Practicum (3) Cr/NC I, II

Nine hours of laboratory.

Prerequisite: Art 453. **Proof of completion of prerequisite required:** Copy of transcript.

Field experience with local professional interior designers in client relationships, business procedures, supervision of subcontracted work and installation, and execution of contracts. Maximum credit six units.

ART 453. Interior Design III (3) I, II

Six hours of activity.

Prerequisites: Art 249, 250, 251, and completion of portfolio requirement. **Proof of completion of prerequisites required:** Copy of transcript.

Materials and techniques of nonresidential space planning. Estimating, specification writing, contractual agreements, record keeping, budgets, and project supervision. Required field trips to professional offices, studios and showrooms.

ART 454. Environmental Graphic Design (3) II

Six hours.

Prerequisites: Grade of C (2.0) or better in Art 340, 341, 342. Computer proficiency required with working knowledge of vector graphics, page layout, and digital image editing software consistent with current industry standards. **Proof of completion of prerequisites required:** Copy of transcript.

Identification and communication systems applied to environmental solutions. Landmark and wayfinding signage systems in interior, exterior, and architectural environments in collaboration with interior design students.

ART 496. Experimental Topics (1-4)

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

ART 498. Senior Project (3) I, II

Nine hours for 498A; three hours for 498B.

Prerequisite: Consent of instructor.

Investigation in art. Formal presentation of project.

A. Studio project

B. Art History project

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

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

ART 500. Advanced Drawing (3)

Six hours.

Prerequisites: One year of 400-level studio art coursework and consent of instructor.

Drawing emphasizing qualitative aspect of visual subject matter. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 502. Inter-Media (1-3) I, II

Two hours for each unit of credit.

Prerequisites: Art 102 and 103.

Process and materials in plane and space. Maximum credit six units. M.F.A. students: Maximum credit six units applicable to the M.A. degree; nine units applicable to the M.F.A. degree.

ART 503. Life Drawing and Painting (3)

Six hours.

Prerequisites: Art 204 and 403.

Drawing and painting from nude and costumed models. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 504. Advanced Painting (3) I, II

Six hours.

Prerequisite: Six units of Art 404.

Approaches to contemporary concepts in painting. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 506. Contemporary Issues for Studio Artists (3)

Prerequisites: Upper division or graduate standing in art and consent of instructor.

Theory, practice, and philosophy of being an artist. Independent research on current art concepts and issues. Material will encompass the past five years. Field trips.

ART 511. Lithography Printmaking in Color (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. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 516. Advanced Sculpture (3) I, II

Six hours.

Prerequisite: Art 416.

Individual investigations into sculpture ideas, methods and materials. Individual development in sculpture. Materials may include clay, metal, plastics, paper or wood. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 517. Figurative Sculpture (3)

Six hours.

Prerequisites: Art 216 and 217.

Figurative study with emphasis on individual exploration. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 523. Advanced Furniture Design and Woodworking (3) I, II

Six hours.

Prerequisite: Six units of Art 423.

Advanced individual design: Exploration of materials, process and function. Continued focus on development of personal design statements and specialized techniques. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 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. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 526. Clay and Glaze Technology in Ceramic Design (3)

Six hours.

Prerequisite: Art 425.

Experimentation and application of research concerning the use of ceramic materials and techniques as an integral part of the design process. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 531. Advanced Jewelry and Metalwork (3) I, II

Six hours.

Prerequisite: Art 431.

Problems involving fabrication processes already studied in order to increase technical competence while exploring personal design statements; specialized techniques such as photoetching and electroforming. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 532. Advanced Metalsmithing (3) I, II

Six hours.

Prerequisite: Art 432.

Advanced problems involving metal processes to increase technical competence while exploring personal design statements. Maximum credit six units. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 534. Advanced Weaving (3) I, II

Six hours.

Prerequisite: Art 334.

Advanced individual problems in weaving. Maximum credit six units. Maximum combined credit of nine units in Art 234, 334, and 534. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 535. Advanced Nonwoven Textile Construction (3) I, II

Six hours.

Prerequisite: Art 435.

Advanced study in nonloom techniques. Techniques to include: looping, braiding, plaiting, and special fabricating techniques. Experimentation with new man-made fibers and with synthetic commercial dyes. Maximum credit six units.

ART 536. Advanced Textile Design (3) I, II

Six hours.

Prerequisite: Art 436.

Application of design for the textile surface, appropriate for both the individual designer and commercial reproduction. Maximum credit six units.

ART 540. Advanced Photographic Imagery (3) II, S

Six hours.

Prerequisites: Grade of C (2.0) or better in Art 340, or Art 240 and 407.

Visual communication and expression using photographic media, including photomechanical and digital processes. Preparation for multimedia and digital prepress. Maximum credit six units with consent of instructor. Students may not re-enroll in this course after earning six units of C or higher (or Cr). Copy of transcript required.

ART 541. Visual Identity and Branding Systems (3) I, II

Six hours.

Prerequisite: Grade of C (2.0) or better in two of the following: Art 440, 441, 442, 454. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, motion graphics, and web design software consistent with current industry standards. **Proof of completion of prerequisites required:** Copy of transcript.

Strategy, planning, and problem solving related to visual communication systems with emphasis on social and cultural context.

ART 542. Typography IV (3)

Six hours.

Prerequisite: Grade of C (2.0) or better in Art 442. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, motion graphics, and web design software consistent with current industry standards. **Proof of completion of prerequisite required:** Copy of transcript.

Individual creative and scholarly research in typography, conceptual and contextual exploration, typographic experimentation based on theory, strategy, and problem solving. Maximum credit six units.

ART 543. Drawing and Illustration for Graphic Design III (3)

Six hours.

Prerequisite: Grade of C (2.0) or better in Art 443. **Proof of completion of prerequisite required:** Copy of transcript.

Strategy and problem solving of professional illustration as related to graphic design; individual conceptual and contextual exploration. Maximum credit six units.

ART 544. Visual Communication: Emerging Technologies (3) II

Six hours.

Prerequisites: Grade of C (2.0) or better in Art 444 or consent of instructor.

Advanced design studies in emerging electronic communications, including cyberstudios, Internet and multimedia. Exploration in collaborative, interdisciplinary, and international projects. Maximum credit six units with consent of instructor.

ART 545. Design Studio (3) I, II

Six hours.

Prerequisite: Grade of C (2.0) or better in two of the following: Art 441, 442, 450, 454, 541, and portfolio review. Computer proficiency required with working knowledge of vector graphics, page layout, digital image editing, motion graphics, and web design software consistent with current industry standards. **Proof of completion of prerequisites required:** Copy of transcript.

Solutions to design problems for clients in a studio environment including business procedures and production management. Development of a professional level portfolio. Maximum credit six units with consent of instructor. Students may not re-enroll in this course after earning six units of C or higher. Copy of transcript required. (Formerly numbered Art 542 entitled Design Studio taken before 2003-04 catalog.)

ART 547. Environmental Theory (3) II

Prerequisite: Art 247 or 347.

Survey of alternative solutions to the problem of design of the physical environment.

ART 552. Interior Design IV (3) I

Six hours.

Prerequisites: Art 451, 453, and completion of portfolio requirement. **Proof of completion of prerequisites required:** Copy of transcript.

Projects in architectural interiors involving the use and perception of enclosed spaces. Space planning systems analysis. Maximum credit six units.

ART 553. Interior Design V (3) II

Six hours.

Prerequisite: Art 552. **Proof of completion of prerequisite required:** Copy of transcript.

Projects in interiors involving space planning analysis, specification writing, materials selection and furnishing design appropriate to commercial needs. Maximum credit six units.

ART 557. Art of the Nineteenth Century (3)

Prerequisite: Art 259.

Development of painting, sculpture, and architecture from the French Revolution to 1900.

ART 558. Twentieth Century European Art to 1945 (3)

Prerequisite: Art 259.

Major developments in the visual arts and art criticism from 1880 to 1945 (Post-Impressionism through Surrealism).

ART 559. Twentieth Century European and American Art Since 1945 (3) I, II

Prerequisite: Art 259. Recommended: Art 558.

Major developments in the visual arts and art criticism since 1945.

ART 560. History of American Art (3)

Prerequisite: Art 259.

Development of painting, sculpture, and architecture from the Native American art and Colonial Period to the present.

ART 561. Art of Pre-Hispanic America (3)

Prerequisite: Art 259.

Art of ancient Meso-America, Central America, Caribbean, and South America from earliest times until contact with Europe.

ART 562. Art of Latin America (3)

Prerequisite: Art 259.

Art and architecture of Latin America from the colonial period to the present. Field trips included.

ART 564. Art of China (3) II

Prerequisite: Art 258 or 259 or 263.

History of Chinese art from prehistoric times through the Ching Dynasty.

ART 565. Art of Japan (3) I

Prerequisite: Art 258 or 259 or 263.

History of Japanese art from prehistoric times to the Meiji Restoration.

ART 566. History of Japanese Painting Tenth to Twentieth Centuries (3) II

Prerequisite: Art 258 or 259 or 263.

History of Japanese painting from tenth to twentieth centuries, emphasizing art from three social groups: aristocrats, warriors, and merchants. Analysis of motifs, iconography, and styles of art schools developed during these periods, reinforced by social history.

ART 567. Art of the Ancient Near East (3)

Prerequisite: Art 258.

Development of painting, sculpture, and architecture of Mesopotamia, Anatolia, the Levant, Ancient Persia, and Egypt from prehistoric times to the first century B.C.

ART 568. Art of Crete, Mycenae, Greece, and Rome (3)

Prerequisite: Art 258.

Development of painting, sculpture, architecture, and crafts from prehistoric times to the fifth century A.D.

ART 569. Art of Sub-Saharan Africa (3)

Prerequisite: Art 158 or 258 or 259 or 263.

Form and content of the art of Sub-Saharan Africa viewed within its cultural context.

ART 570. Art of the Pacific Islands (3)

Prerequisite: Art 158 or 258 or 259 or 263.

Visual arts of the Pacific Islands; recognition of styles and object types and their historical, social, and cultural contexts.

ART 573A. Italian Art of the Fourteenth and Fifteenth Centuries (3)

Prerequisite: Art 259.

Italian arts, architecture, artists, and patrons from fourteenth century Proto-Renaissance period through fifteenth century revival of classical humanism in city states of Florence, Siena, Bologna, Mantua, and Padua.

ART 573B. Italian Art in the Sixteenth Century (3)

Prerequisite: Art 259.

High Renaissance in Florence and Rome, followed by disintegration of classical principles and domination of Mannerism in Central and Northern Italy and history of arts of Venice in sixteenth century.

ART 575. European Art from 1600 to 1750 (3)

Prerequisite: Art 259.

Architecture, sculpture, and painting of the Baroque and Rococo periods.

ART 577. History of Architecture (3)

Prerequisites: Art 258 and 259.

Architecture from primitive times to the present.

ART 578. Seminar in History of Museums and Exhibitions (3) I

Prerequisite: At least one course selected from Art 557, 558, 559, or 560.

Origin, history, and function of the museum. Theories of collecting, museums, and construction of knowledge. Role of elites in formation and construction of museums, controversial exhibitions, exhibitionary practices, and globalism.

ART 591. Gallery Exhibition Design (3) I, II

Six hours.

Prerequisite: Fifteen units of art.

Fundamental art elements and principles applied to the theories and techniques of gallery exhibition design.

ART 592. Gallery Exhibition Design (3) I, II

Six hours.

Prerequisite: Art 591.

Advanced problems in the theories and techniques of gallery exhibition design.

ART 593. History and Methodology of Art History (3) II

Prerequisite: Twelve units of upper division art history.

Readings and discussions on the historiography of art and on modern methodologies for art historical research.

ART 596. Advanced Studies in Art and Art History (1-4)

Prerequisites: Twelve units of art and art history and consent of instructor.

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

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.

Asian Studies

In the College of Arts and Letters

OFFICE: Business Administration 334

TELEPHONE: 619-594-0931

FAX: 619-594-0257

E-MAIL: dwin@mail.sdsu.edu

<http://www.rohan.sdsu.edu/~aps1>

Faculty

Emeritus: Madhavan

Chair: Weiner

Professor: Weiner

Assistant Professors: Cai, Wawrytko

Lecturers: Wittenborn

Associated Faculty: Bergstrom (Political Science), Cheng (Speech, Language, and Hearing Sciences), Chin (English and Comparative Literature), Choi (Linguistics), Ghosh (Women's Studies), Guang (Political Science), Gupta (Political Science), Hayakawa (Art), Henry (Anthropology), Higurashi (Japanese), Kitajima (Japanese), Lippold (Anthropology), Liu (Sociology), Maruyama (Art), McIlwain (Public Administration and Urban Studies), Miyamoto (Japanese), Nakamura (Art), Pang (Teacher Education), Peterman (Music), Samraj (Linguistics), Tran (Teacher Education and Policy Studies in Language and Cross-Cultural Education), Wong (Dean, College of Arts and Letters), Young (Policy Studies in Language and Cross-Cultural Education), Yu (Public Health), Zhang (Chinese)

Offered by the Department of Asia Pacific Studies

Master of Arts degree in Asian studies.

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

Minor in Asian studies.

The Major

Three billion people live in East, Southeast, and South Asia – half of the world's population. The importance of this immense and varied region cannot be overstated. More and more Americans are discovering the rich culture and history of the Asian people. Asians have made a major contribution to the world's literature and art, religion and philosophy, and are becoming increasingly important in international relations, business, and economics.

Nonmajors who wish to increase their knowledge about Asian peoples will find courses available in the Asian studies undergraduate and graduate programs.

The Department of Asia Pacific Studies seeks to provide a background for students planning to enter business, the academic environment, government, or community service – wherever the knowledge of Asia and Asians is needed. Students in the major develop an understanding of cultural heritage, societies, language and special forces. Areas of special interest may be pursued in depth.

Advising

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

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. (6 units)

Language Requirement. Competency (equivalent to that normally attained through two consecutive years of college study) in one major Asian language, such as Chinese or Japanese, unless specifically waived by the undergraduate adviser.

Graduation Writing Assessment Requirement. Completion of Asian Studies 360W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 33 upper division units in Asian Studies. At least six upper division units must be at the 500-level. Asian-content courses 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 21 units to include Asian Studies 100, 101; 12 upper division units in Asian Studies; plus an appropriate Asian language course, e.g., Chinese or Japanese.

At least six upper division units must be at the 500-level. Up to six units from other departments may be applied to the major with written approval of the undergraduate adviser.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of twelve upper division units must be completed in residence at San Diego State University.

Courses (ASIAN)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

ASIAN 100. State and Society in the Asia Pacific (3)

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.)

ASIAN 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.)

ASIAN 261. Economic Relations in the Asia Pacific (3)

Economic relations of the Asia Pacific, focusing primarily on period since World War II. Topics also include process of regional economic integration and linkages between economies of East and Southeast Asia and the United States.

ASIAN 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES
(Intended for Undergraduates)

ASIAN 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.

ASIAN 303. Imperialism and Nationalism in the Asia Pacific (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 nation-states in nineteenth and twentieth centuries with aim of understanding socio-political diversity of this region.

ASIAN 310. Diasporan Communities of the Asia Pacific (3)

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

Diverse processes, economic, political, and cultural, that have shaped formation and continued growth of diasporan communities in Asia Pacific region. Historical origins and contemporary status of diasporan communities.

ASIAN 330. Business Environment in the Asia Pacific (3)

Prerequisite: Asian Studies 261 for majors; consent of instructor for nonmajors.

Business environment in the Asia Pacific in terms of economic, political, legal, and cultural environment. Emphasis on major economies of the region, Japan, South Korea, and China.

ASIAN 351. Literary Horizons of Asia Pacific (3)

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.

ASIAN 360W. Research and Writing About the Asia Pacific (3)

Prerequisite: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Interdisciplinary approaches to studying and writing about the Asia Pacific. Critiquing how contemporary images of this region have been constructed and transmitted.

ASIAN 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.

ASIAN 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.

ASIAN 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.

ASIAN 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.

ASIAN 496. Experimental Topics (1-4)

Prerequisite: Six units of Asian-content courses.

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

ASIAN 499. Special Study (1-3)

Prerequisites: At least six units of upper division work completed toward the major or minor in Asian studies and consent of the instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

ASIAN 506. War and Memory in the Asia Pacific (3)

Historiography of the Pacific War and problems associated with historical evidence, memory, authentication, and political uses of history.

ASIAN 530. Media and Popular Culture in the Asia Pacific (3)

Media and popular culture in Asia as instruments of social control, agencies of emancipation, expressions of global western power, and a means through which local identities are revitalized.

ASIAN 531. Spiritual and Intellectual Traditions in the Contemporary Asia Pacific (3)

Major thinkers or schools of Asian thought in modern times, reflecting East/West encounters and influences of global importance. Spiritual and intellectual aspects, cultural context, social/political/economic dimensions of the thinker or school and impact beyond the original culture.

ASIAN 533. Minorities and Human Rights in the Asia Pacific (3)

Human rights regimes and status of minorities in parts of Asia Pacific. Examines notion of "universal rights" within and between countries of the region.

ASIAN 570. Economic Dynamics of the Asia Pacific (3)

Sources and causes of regional economic growth. Role of the state, national growth models, enterprise forms and trade. Financial crisis of 1997-98 and subsequent developments to assess future economic prospects for the region.

ASIAN 596. Selected Studies in Asian Cultures (3)

Topics on various aspects of Asian studies. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

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

Astronomy

In the College of Sciences

OFFICE: Physics/Astronomy 210

TELEPHONE: 619-594-6182

FAX: 619-594-1413

E-MAIL: astro@sciences.sdsu.edu

<http://mintaka.sdsu.edu>

Faculty

Emeritus: Angione, Daub, May, Nelson, Talbert, Young, A.

Chair: Shafter

Professors: Etzel (Director of Mt. Laguna Observatory), Shafter

Associate Professor: Sandquist

Assistant Professors: Orosz, Welsh

Adjunct: Blanco, Hood, Ringwald, Teare, Veal, Young, A.T.

Offered by the Department

Master of Science degree in astronomy.

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

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

Minor in astronomy.

The Major

Will the universe expand forever? Is there life on other planets? How are stars formed? These are the types of questions being addressed by students majoring in astronomy. Some areas of study in astronomy include the sun, the solar system, the stars, the Milky Way, the galaxies, and cosmology.

SDSU is the only institution in The California State University system that offers a complete academic program in astronomy. Students actively participate in all phases of observational astronomical research.

Joint faculty and student research activities are principally in the area of observational astrophysics. These include ongoing investigations of cosmology, eclipsing binary stars, low mass stars, planetary nebulae, galactic clusters, exterior galaxies, and extrasolar planets.

Much of this work is done at the Mount Laguna Observatory operated by the university. Modern astronomical detectors are employed that produce digital data, which lend themselves to computer analysis. Faculty and students also participate in space astrophysics projects. The department has excellent computer facilities at the observatory and on-campus.

Graduates with a bachelor's degree are trained in the application of the scientific method to the realm of astronomy and astrophysics, which requires a good foundation of understanding of physics and mathematics. Additionally, our students obtain useful skills in computing applications and in the use of modern electronic instrumentation. Many of our graduates find employment in industry, with astronomical observatories, or with government agencies or government contractors. These jobs support continuing research and include telescope operators, instrument makers, opticians, electronic technicians, programmers, image analysts, and laboratory technicians. Some of our graduates pursue advanced degrees.

Employment opportunities for astronomers who have advanced degrees include positions in colleges and universities, in national observatories and government laboratories, in planetariums, and in industry and private companies.

Astronomy Major

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

(Major Code: 19111)

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

A minor is not required with this major.

Preparation for the Major. Astronomy 201; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, 197L. (27 units)

Recommended: Chemistry 200, Computer Science 106 or 107.

Language Requirement. Competency (equivalent to that which is normally attained through three consecutive semesters of college study) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units in astronomy and physics to include Astronomy 320, 350, 440, 450; Mathematics 342A; Physics 350, 354; and six units selected with the approval of the astronomy undergraduate adviser. Recommended: Physics 360, 400A, 406, 410.

Astronomy Major

With the B.S. Degree in Applied Arts and Sciences

(Major Code: 19111)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

Preparation for the Major. Astronomy 201; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, 197L. (27 units)

Recommended: Chemistry 200, Computer Science 106 or 107.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units in astronomy and physics to include Astronomy 320, 350, 440, 450, 498A, 498B; Physics 350, 354, 360, 400A; and nine units selected from Physics 311, 400B, 406, 410.

Minor in Mathematics. All candidates for the B.S. degree in astronomy must complete a minor in mathematics, to include Mathematics 342A, 342B, and three additional upper division units of electives in mathematics. Recommended: Mathematics 541; Statistics 551A.

Astronomy Minor

The minor in astronomy consists of a minimum of 15 units to include Astronomy 201 and 12 upper division units selected from Astronomy 301, 310, 320⁺, 340⁺, 350⁺, 440⁺, 450⁺.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

⁺ Additional prerequisites required.

Courses (ASTR)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

ASTR 101. Principles of Astronomy (3) I, II, S

Discover the universe: planets, stars, galaxies, and our place in the cosmos; the Big Bang; how stars shine; comets, meteors, nebulae, the Milky Way; black holes and other exotic objects. Not open to students with credit in Astronomy 201.

ASTR 109. Astronomy Laboratory (1) I, II, S

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Astronomy 101 or 201.

Demonstration of astronomical principles through observations with astronomical instruments and analysis of astronomical data. A nighttime field trip to Mount Laguna Observatory is required.

ASTR 201. Astronomy for Science Majors (3)

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.

Directed toward students with a strong interest in science and mathematics. Understanding the night sky, introduction to the solar system, star formation and evolution, extrasolar planets, nature of the Milky Way and other galaxies, origin and fate of the universe. Students with credit in Astronomy 101 and 201 will receive a total of three units of credit toward graduation.

ASTR 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

ASTR 301. Cosmology and Gravitational Collapse (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.1. Physical Sciences.

Einstein's theory of general relativity applied to problems of gravitational collapse (stellar evolution, neutron stars, black holes) and cosmology (origin and evolution of the universe).

ASTR 310. Astrobiology and the Search for Extraterrestrial Life (3) 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.

ASTR 320. Solar System Astronomy (3) II

Prerequisites: Astronomy 201 and Physics 197, 197L.

Structures of the planets; their surfaces, atmospheres, and satellite systems; asteroids, comets, and meteoroids. The Sun, its structure, energy production, and influence in the solar system. Life in the solar system.

ASTR 340. Spherical Astronomy (3) I

Prerequisites: Credit or concurrent registration in Mathematics 252 and Physics 197.

Problems in spherical astronomy, astronomical coordinate systems, time, general precession, and introduction to celestial mechanics.

ASTR 350. Astronomical Techniques (3) II

Prerequisite: Astronomy 201.

Astronomical observation and optics. Data acquisition and reduction for modern astronomical instrumentation including photometry, direct imaging, and spectroscopy. Techniques for obtaining precise measurements and determining measurement uncertainties.

ASTR 440. Astrophysics of Stars (3) I

Prerequisites: Credit or concurrent registration in Mathematics 342A and Physics 354.

Radiative transfer theory, atmospheres of stars and the emergent spectrum, interior structure and evolution of stars, stellar pulsations.

ASTR 450. Astrophysics of Star Systems (3) II

Prerequisites: Credit or concurrent registration in Mathematics 342A and Physics 354.

Applications of physics in study of binary stars, star clusters, the interstellar medium and galactic structure, galaxies, and cosmology.

ASTR 496. Experimental Topics (3)

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

ASTR 498A. Senior Project (1) I, II

Prerequisite: An acceptable master plan for graduation within one year.

Selection and design of individual projects.

ASTR 498B. Senior Project (2) I, II

Six hours of laboratory.

Prerequisite: Astronomy 498A.

Individual research project culminating in a final written report.

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

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSE (Also Acceptable for Advanced Degrees)

ASTR 596. Advanced Topics in Astronomy (2 or 3) I, II

Prerequisite: Consent of instructor.

Selected topics in astronomy or astrophysics. May be repeated with new content upon approval of instructor. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.

Biology

In the College of Sciences

OFFICE: Life Sciences 104

TELEPHONE: 619-594-6767

UNDERGRADUATE ADVISING OFFICE: Life Sciences 135

TELEPHONE: 619-594-6442

FAX: 619-594-5676

<http://www.bio.sdsu.edu>

Faculty

Emeritus: Alexander, Alfred, Atkins, Avila, Barnett, Baxter, Bohnsack, Breindl, Carmichael, Carpenter, Chen, Clark, Cohn, Collier, B., Collier, G., Cox, Daugherty, Davis, C., Davis, R., Dexter, Diehl, Dowler, Ebert, Etheridge, Fisher, Ford, Futch, Hanscom, Hazen, Hemmingsen, Huffman, Hunsaker, Johnson, A., Johnson, K., Kelly, Krekorian, Krisans, Kummerow, Monroe, Moore, Neel, Norland, Olson, Paolini, Parsons, Phelps, Phleger, Plymale, Ratty, Rinehart, Schapiro, Shepard, Sloan, Taylor, Thwaites, Van Steenbergen, Walch, Wedberg, Wilson, Zedler, J., Zedler, P., Zyskind

Chair: Glembotski

Professors: Archibald, Bernstein, Berta, Bizzoco, Buono, Franklin, Frey, Glembotski, Harris, Hurlbert, Maloy, McClenaghan, McGuire, Oechel, Perrault, Pozos, Sabbadini, R., Segall, Simpson, Sussman, Tsoukas

Associate Professors: Burns, Deutschman, Reeder, Williams

Assistant Professors: Anderson, Arenas-Mena, Bohonak, Edwards, Hedin, Hentschel, Hovel, Kelley, Lipson, Regan, Rohwer, Waters, Zeller

Lecturers: Garver, Gibbins, Krown, Martin, Sabbadini, G.

Offered by the Department

Doctor of Philosophy degree in biology and ecology.

Master of Arts degree in biology.

Master of Science degree in biology.

Master of Science degree in microbiology.

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

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

Emphasis in bioengineering.

Emphasis in cellular and molecular biology.

Emphasis in ecology.

Emphasis in evolution and systematics.

Emphasis in marine biology.

Emphasis in zoology.

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

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

Emphasis in clinical laboratory science and public health microbiology.

Program of study in biology in preparation for the single subject teaching credential in science.

Minor in biology.

Certificate in biotechnology.

The Majors

Biology. The Department of Biology offers a dynamic and modern program in biology which prepares students both academically and practically for vocations in science and science-related fields or for entry into graduate studies. The major is designed to present a basic background in modern biology and in the supportive disciplines of chemistry, mathematics and physics, and to provide specialized training selected by the student from a variety of areas. The wide range of faculty expertise and research interest allows the department to offer a curriculum which includes general and advanced courses in plant and animal sciences, marine sciences, genetics and physiology,

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 well-being of plants and animals, including humans, by causing infectious diseases. Microorganisms are often used in the molecular biology laboratory as research tools, for experiments in genetic engineering, and in the manufacture of food and chemicals.

The microbiology major is designed to provide the student with a background in basic biology, microbiology, and the disciplines of chemistry, mathematics and physics. The curriculum includes introductory and advanced courses (most with laboratories) in general and pathogenic microbiology, immunology, virology, physiology, and genetics as well as courses in food and industrial microbiology, marine microbiology, and molecular biology.

Microbiologists find positions with governmental agencies, in university and private research laboratories, in biotechnology, medical and industrial laboratories, in schools as teachers, with scientific supply companies, or with textbook companies. Depending on the situation, a microbiologist may conduct fundamental and applied research, identify disease-causing microorganisms in medical or veterinary specimens, participate in studies of the environment (e.g., soil, ocean, lakes), aid in the manufacture of pharmaceuticals, food, or beverages, or provide quality and safety control. The microbiology major is excellent preparation for entrance into medical, dental, veterinarian, and graduate schools. The Emphasis in Clinical Laboratory

Science and Public Health Microbiology prepares students to become, after a postgraduate internship, licensed medical technologists or certified public health microbiologists.

Impacted Programs

The biology and microbiology majors are impacted programs. To be admitted to the biology or microbiology major, students must meet the following criteria:

- Complete with a minimum GPA of 2.70 and a grade of C or higher: Biology 201A, 201B, 215; Chemistry 200, 201, 231; Mathematics 121 and 122; and Physics 180A, 180B, 182A, and 182B. These courses cannot be taken for credit/no credit (Cr/NC);
- Have a cumulative GPA of 2.60 or higher;
- Students choosing an emphasis in bioengineering have a different set of courses to complete in the preparation for the major. To be admitted to the major, bioengineering students must complete Biology 201A, 201B; Chemistry 200, 201, 231; Mathematics 150, 151; Physics 195, 196, 197 with at least a C in each course; and have a cumulative GPA of 2.70 or higher. Students may not elect credit/no credit grading for coursework needed to satisfy preparation for the major requirements.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Biology Major

With the B.A. Degree in Liberal Arts and Sciences (Major Code: 04011)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." A total of 40 upper division units must be taken, of which 24 must be selected from the General Biology Degree Requirements and the list of courses acceptable for electives. No more than 48 units in biology courses can apply to the degree.

A minor is not required with this major.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above.

Biology Major

With the B.S. Degree in Applied Arts and Sciences (Major Code: 04011)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." A total of 36 upper division units must be selected from the General Biology Degree Requirements and the list of courses acceptable for electives.

A minor is not required with this major.

General Biology Degree Requirements

Preparation for the Major. Biology 201A, 201B, 215; Chemistry 200, 201, and 231 or 232 and 232L; Mathematics 121 and 122; Physics 180A, 180B, 182A, 182B. (39 units)

These prerequisite courses may not be taken Cr/NC and must be completed with a minimum GPA of 2.70 and a grade of C or higher in each class.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 24 upper division units for the B.A. degree or 36 upper division units for the B.S. degree to include Biology 352, 354, 366, 366L, and Chemistry 365. Elective courses include all upper division biology courses numbered 350 and above, Oceanography 541, and all upper division chemistry courses (except Chemistry 497 and 499, 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, 530, 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

Preparation for the Major. Biology 201A, 201B; Chemistry 200, 201, and 231 or 232 and 232L; Electrical Engineering 203; Engineering Mechanics 200; Mechanical Engineering 101, 240; Mathematics 150, 151, 252; Physics 195, 196, 197. (54 units)

These prerequisite courses may not be taken Cr/NC and must be completed with a minimum GPA of 2.70 and a grade of C or higher in each class.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 38 upper division units to include Biology 366, 366L and either Biology 350 or 590; Chemistry 365; Civil Engineering 301; Mathematics 342A; Mechanical Engineering 352, 490A*, 490B; 12 units selected from the following courses, at least six of which must be biology courses: Biology 497 and 499 or Mechanical Engineering 499 (maximum 3 units); Biology 350, 467, 474, 555; either 556 or 557, 560, 575 or 590; Chemistry 431; Electrical Engineering 303, 503; Exercise and Nutritional Sciences 306; Mechanical Engineering 310, 512, 540, 580. Approval of the Emphasis in Bioengineering adviser is required for credit in Biology 497, 499, and other courses not listed above to be included in the emphasis. This approval must be filed with the Office of Advising and Evaluations.

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)

These prerequisite courses may not be taken Cr/NC and must be completed with a minimum GPA of 2.70 and a grade of C or higher in each class.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Biology 350, 352, 354, 366, 366L, 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 497 and 499 and/or Chemistry 498

(maximum 3 units), Biology 512, 521, 521L, 549, 551, 554, 555, 556, 557, 563, 570, 575, 576, 584, 485 or 585, 588/588L, 590, 594, 595, and Chemistry 431. At least one course must be an organismal level course. Approval of the Emphasis in Cellular and Molecular Biology adviser is required for credit in Biology 497, Chemistry 498, Biology or Chemistry 496, 499, and 596 and other courses not listed above to be included in the emphasis. This approval must be filed with the Office of Advising and Evaluations.

Other than Biology 352, 354, 366, 366L and Chemistry 365, only one course in this emphasis may be used for credit in another emphasis offered by the department.

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)

These prerequisite courses may not be taken Cr/NC and must be completed with a minimum GPA of 2.70 and a grade of C or higher in each class.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Biology 352, 354, 354L, 366, 366L, Chemistry 365, and at least 15 units of electives selected from Biology 496 and/or 596 (maximum 3 units), 497 and 499 (maximum 3 units), 526 or 533, 508, 509, 512, 517, 535, 537, 538, 540, 541, 560, 563, 597A. 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, 530, 533, 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 and 499, 560A-560B). Approval of the Emphasis in Ecology adviser is required for credit in Biology 496, 497, 499, 596, and other courses not listed above to be included in the 15 units of ecology electives. This approval must be filed with the Office of Advising and Evaluations.

Other than Biology 352, 354, 366, 366L, and Chemistry 365, only one course in this emphasis may be used for credit in another emphasis offered by the department.

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)

These prerequisite courses may not be taken Cr/NC and must be completed with a minimum GPA of 2.70 and a grade of C or higher in each class.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a

score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Biology 352, 354, 366, 366L, 509, Chemistry 365, and at least 12 units of electives selected from Biology 496 and/or 596 (maximum 3 units), 497 and 499 (maximum 3 units), 460, 508, 510, 511, 512, 515, 520, 521, 521L, 523, 524, 525, 526, 530, 531, 588/588L. 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, 530, 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 and 499, 560A-560B). Approval of the Emphasis in Evolution and Systematics adviser is required for credit in Biology 496, 497, 499, 596, and other courses not listed above to be included in the 12 units of evolution and systematics electives. This approval must be filed with the Office of Advising and Evaluations.

Other than Biology 352, 354, 366, 366L, and Chemistry 365, only one course in this emphasis may be used for credit in another emphasis offered by the department.

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)

These prerequisite courses may not be taken Cr/NC and must be completed with a minimum GPA of 2.70 and a grade of C or higher in each class.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Biology 352, 354, 366, 366L, Chemistry 365, and at least 15 units of electives selected from Biology 496 and/or 596 (maximum 3 units), 497 and 499 (maximum 3 units), 512, 514, 515, 517, 520, 541, 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 and 499, 560A-560B), and may include three units selected from Economics 454, Geography 504, Geological Sciences 540, 545. Approval of the Emphasis in Marine Biology adviser is required for credit in Biology 496, 497, 499, 596, and other courses not listed above to be included in the 15 units of marine biology electives. This approval must be filed with the Office of Advising and Evaluations.

Other than Biology 352, 354, 366, 366L, and Chemistry 365, only one course in this emphasis may be used for credit in another emphasis offered by the department.

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)

These prerequisite courses may not be taken Cr/NC and must be completed with a minimum GPA of 2.70 and a grade of C or higher in each class.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Biology 352, 354, 366, 366L, Chemistry 365, and at least 15 units of electives selected from Biology 496 and/or 596 (maximum 3 units), 497 and 499 (maximum 3 units), and 515, 526, 588/588L (invertebrate group), 512, 520, 523, 524, 525 (vertebrate group), 508, 509, 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 and 499, 560A-560B). Approval of the Emphasis in Zoology adviser is required for credit in Biology 496, 497, 499, 596, and other courses not listed above to be included in the 15 units of zoology electives. This approval must be filed with the Office of Advising and Evaluations.

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
(Major Code: 04111)

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

A minor is not required with this major.

Preparation for the Major. Biology 201A, 201B, 215; Chemistry 200, 201, and 231 or 232 and 232L; Mathematics 121 and 122; Physics 180A, 180B, 182A, 182B. (39 units)

These prerequisite courses may not be taken Cr/NC and must be completed with a minimum GPA of 2.70 and a grade of C or higher in each class.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. It is recommended that students select French, German or Russian to satisfy this requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 33 upper division units to include Biology 350, 352, 354, 366, 366L, 467, 521 or 584, 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
(Major Code: 04111)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Biology 201A, 201B, 215; Chemistry 200, 201, and 231 or 232 and 232L; Mathematics 121 and 122; Physics 180A, 180B, 182A, 182B. (39 units)

These prerequisite courses may not be taken Cr/NC and must be completed with a minimum GPA of 2.70 and a grade of C or higher in each class.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Biology 350, 352, 354, 366, 366L, 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 497 and 499 (maximum 3 units), Biology 521, 551, 554, 555, 556, 557, 584, 485 or 585, 588, 588L, 590, 595, Chemistry 431, 467L. Approval of the Microbiology adviser is required for credit in Biology 496, 497 and 499, 596, and other courses not listed above to be included in the electives. This approval must be filed with the Office of Advising and Evaluations.

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 Clinical Laboratory Science and Public Health Microbiology

The emphasis in clinical laboratory science and public health microbiology is a program of required and elective courses which prepares students for the Public Health Microbiologist and Clinical Laboratory Scientist academic certification and licensing examinations.

Preparation for the Major. Biology 201A, 201B, 215; Chemistry 200, 201, and 231 or 232 and 232L; Mathematics 121 and 122; Physics 180A, 180B, 182A, 182B. (39 units)

These prerequisite courses may not be taken Cr/NC and must be completed with a minimum GPA of 2.70 and a grade of C or higher in each class.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Biology 350, 352, 354, 366, 366L, 485 or 585, 521L, 549, 584, Chemistry 365. The remaining units to be selected from Biology 521, 551, 554, 555, 556, 557, 588, 588L, 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

(Major Code: 04011)

Students applying to the College of Education's graduate program for the Single Subject Teaching Credential in Science/Biological Sciences must be certified by this department for subject matter competency. This certification requires earning a B or better in Biology 452 and either (1) passing the required examinations (CSET), or (2) completing the subject matter preparation program described below.

Certification through the accomplishment of appropriate coursework requires (1) completion of the courses described under the General Biology Degree Requirements, B.S. degree (preparation for the major and major) including the following electives in the major: Biology 436, 452, 460 or 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 497 and 499 and Chemistry 467L be included if the major is being sought); (2) earning a B or better in Biology 452, (3) completing Astronomy 101, 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 497 and 499 may be included in the minor with prior approval of the department. For courses requiring Biology 215 as a prerequisite, a college level course in statistics may be acceptable with the approval of the instructor. Basic chemistry, such as Chemistry 100, 105, or 200, is strongly recommended. Courses may be substituted for those in groupings below with approval of the biology adviser, and this approval must be filed with the Office of Advising and Evaluations.

General Biology

Required: At least four courses with one course from each of the following areas: Evolution and Genetics (3 units): Biology 319, 321, or 352; Ecology and the Environment (3 units): Biology 315, 324, 326, 327, or 354; Human Biology (3 units): Biology 307, 321, or 336; Biology Laboratory (2-4 units): Biology 354L, 436, 515, 517, 523, 524, 525, 526, or 530. Note: Biology 321 can only be applied to one area. Requirements for all biology minors (above) apply.

Biology for Physiological Psychology

Required: Biology 321, 336, 436, 570*. Elective: Biology 307. At least one college course in chemistry is strongly recommended to complement this minor. Requirements for all biology minors (above) apply.

* Additional prerequisites required.

Cellular and Molecular Biology

Prerequisites: Biology 201A, Chemistry 200, 201, 231, 365. At least nine units of the following electives: Biology 350, 352, 366, 366L, 467, 499, 521, 521L, 549, 551, 554, 555, 563, 570, 575, 576, 584, 590, 594, 595, and 485 or 585, and 556 or 557. Requirements for all biology minors (above) apply.

Ecology

Required: Biology 354. Electives: Biology 315, 324, 327, 354L, 509, 512, 514, 515, 517, 523, 524, 525, 526, 540, 541. Requirements for all biology minors (above) apply.

Evolutionary Biology

Required: Biology 319 or 352 or 509. Electives: Biology 319, 352, 508, 509, 512, 523, 524, 525, 526. Requirements for all biology minors (above) apply.

Human Biology

Required: Biology 261 or 336 or 590. Electives: Biology 307, 321, 326, 336, 352, 436, and 590. Requirements for all biology minors (above) apply.

Marine Biology

Required: Biology 514 or 515 or 520. Electives: Biology 324, 512, 514, 515, 517, 520, 524, and 541. Requirements for all biology minors (above) apply.

Plant Biology

Required: Biology 460 or 531 or 533 or 535. Electives: Biology 326, 460, 530, 531, 533, 535, and 563. Requirements for all biology minors (above) apply.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

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 497 and 499 (5 units as approved by the certificate adviser), 551, 594, Chemistry 467L, and three electives selected from Biology 521, 521L, 549, 554, 570, 575, 584, 585, 590. Biology 551 and 552 must be taken at San Diego State University, either in residence or through Open University. Prerequisite and certificate courses may be utilized in the biology, chemistry, and microbiology majors and minors as appropriate.

Courses in the certificate may not be counted toward the minor.

Courses (BIOL)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

BIOL 100. General Biology (3) I, II

Prerequisite recommended: Concurrent registration in Biology 100L.

A beginning course in biology stressing processes common to living organisms. Not open to students with credit in Biology 203 or biological sciences majors; see Biology 201A, 201B.

BIOL 100L. General Biology Laboratory (1) 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.

BIOL 101. World of Animals (3)

Animal adaptation and diversity and their relationship to the development of evolutionary theory. Not open to biological sciences majors.

BIOL 101L. World of Animals Laboratory (1)

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 101.

Laboratory course on evolution and diversity of animals involving field trips and laboratory investigations. Not open to biological sciences majors.

BIOL 200. Concepts in Biology (3)

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.

BIOL 201A. Principles of Cell and Molecular Biology (4) I, II

Three lectures and three hours of laboratory.

Prerequisites: Chemistry 200 and satisfaction of the English Placement Test requirement.

Principles of biology applying to all organisms, including cell structure, membrane transport, energy metabolism, cell division, classical and molecular genetics, recombinant DNA, population genetics, mechanisms of evolution, and the basis of classification. (Formerly numbered Biology 202.)

BIOL 201B. Principles of Organismal Biology (4) I, II

Three lectures and three hours of laboratory.

Prerequisite: Satisfaction of the English Placement Test requirement. Strongly recommended: Completion of Biology 201A.

Principles of biology covering all organisms, including systematics and diversity of bacteria, protista, fungi, plants and animals, and concepts of physiology, reproduction, development and differentiation, ecology, and the causes of the endangerment of a species. (Formerly numbered Biology 201.)

BIOL 203. Understanding Biology (4)

Three lectures and two hours of laboratory.

Major conceptual principles of biology, with emphasis on evolution, inheritance, cellular life, biodiversity, ecology, and behavior. Evaluation of learning strategies and initial alternative conceptions about biology. Not open to students with credit in Biology 100 and 100L or to biological sciences majors.

BIOL 210. Fundamentals of Microbiology (4) I, II

Two lectures and six hours of laboratory.

Prerequisites: Biology 201A; or Biology 100, 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.

BIOL 212. Human Anatomy (4) I, II

Two lectures and six hours of laboratory.

Prerequisite: Biology 100 or 201A.

Gross and microscopic anatomy of organ system of human body.

BIOL 215. Biostatistics (3) 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.

BIOL 224. Marine Topics at Sea World (1) (Offered only in Extension)

Prerequisite: College course in biology.

Marine topics of current interest. May be repeated with different topic and consent of instructor for maximum credit four units. See Extension catalog for specific content.

BIOL 246. Colloquium in Biomedical Sciences (1) II

Prerequisite: University level biology course.

Current biomedical research projects ranging from cell biology to behavioral research. Research paper required. Maximum credit two units.

BIOL 247. Advanced Degree Programs in the Sciences: Application Strategies (1)

Prerequisite: Junior or senior standing.

Instruction in preparing competitive applications to sciences' M.S. and Ph.D. degree programs to include development of the required personal statement. Introduction to sources of financial support, such as national fellowship programs, and development of interview skills and materials. Maximum credit one unit for any combination of Biology 247, 248, 249, 250A-250B-250C.

BIOL 248. Careers in Biological Sciences (1) Cr/NC

Career opportunities in biological sciences. Specialists in major biological areas will present information about their fields and how best to prepare for careers. Maximum credit one unit for any combination of Biology 247, 248, 249, 250A-250B-250C.

BIOL 249. Career Choices in the Health Professions (1)

Career opportunities in allied health professions; trends in health care; discussion of medical ethics; practicing professionals will present about their fields and how best to prepare for careers in their area of health care. Maximum credit one unit for any combination of Biology 247, 248, 249, 250A-250B-250C.

BIOL 250. Preprofessional Topics (1) Cr/NC

A. Topics in Medicine.

B. Topics in Dentistry.

C. Topics in Veterinary Medicine.

Designed to expose the preprofessional student to the profession of his/her choice through speakers and selected readings. Emphasis on alternatives and meeting stresses as a preprofessional student. Maximum credit one unit for any combination of Biology 247, 248, 249, 250A-250B-250C.

BIOL 261. Human Physiology (4) I, II

Three lectures and three hours of laboratory.

Prerequisites: Chemistry 100; Biology 100 or 201A, 212; credit or concurrent registration in Chemistry 130.

Human function viewed from cellular through organ system levels of organization. Intended primarily for prenursing students. Not open to biological sciences majors or students with credit in Biology 336, 436, or 590.

BIOL 277. Medical Terminology (2)

Prerequisite: Biology 201B.

Words and word components used in medical and allied medical practice translated, investigated, and applied.

BIOL 291. Biology Laboratory (1) I, II

Prerequisites: Recommendation by department and consent of instructor.

Special course to allow makeup of program laboratory deficiencies. Student will be assigned to a laboratory section of the appropriate course.

A. Laboratory for Biology 201A. (Formerly numbered Biology 291B.)

B. Laboratory for Biology 201B. (Formerly numbered Biology 291A.)

C. Laboratory for Biology 215.

BIOL 296. Experimental Topics (1-4)

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

BIOL 299. Special Study (1-2)

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 Requirement: Completion of the Graduation Writing Assessment Requirement or the eligibility to enroll in an upper division writing course is a prerequisite for all upper division biology courses numbered 450 and above.

BIOL 307. Biology of Sex (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological science course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological science is required.

Reproductive adaptations in humans, and comparatively in other species. Topics include sex differences, mate choice and mating behavior, fertility regulation, fertilization and embryonic development, sex ratios, parental investment, effects of aging, and life history strategies. Not applicable to biological sciences majors.

BIOL 315. Ecology and Human Impacts on the Environment (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning. If a biological science course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological science is required.

Ecological characteristics of natural ecosystems and basic effects of human society upon those systems, emphasizing resource management, food production, global environmental problems, and future directions. Not applicable to biological sciences majors.

BIOL 319. Evolution (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Modern theory of organic evolution with emphasis on processes involved as they relate to past, present, and future evolution of mankind. Not applicable to biological sciences majors; see Biology 352.

BIOL 321. Human Heredity (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Selected principles of human inheritance with emphasis on relationships to other fields of human studies. Not applicable to biology or microbiology majors; see Biology 352.

BIOL 324. Life in the Sea (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Overview of complexity of marine life. Diverse interactions of organisms in the intertidal zone, over the continental shelves and in the open oceans. Current controversies concerning the marine biosphere. Not applicable to biological sciences majors.

BIOL 326. Plants, Medicines, and Drugs (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Medicinal plants, toxic-poisonous plants, herbal medicines, psychoactive plants, preparation of medicines and mechanisms of action; current research results on medicinal plants and drugs used in diseases such as diabetes, cancer, and heart diseases. Not applicable to biological sciences majors.

BIOL 327. Conservation of Wildlife (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Global ecosystems and their dynamics, with emphasis on sustainable human use and preservation and biodiversity. Not applicable to biological sciences majors.

BIOL 336. Principles of Human Physiology (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences. If a biological sciences course is not taken to satisfy General Education II.A.2. Life Sciences, a college course in biological sciences is required.

Systems of the human body, their interrelationships and control systems which regulate them. Not open to students with credit in a college course in human physiology. Not applicable to biological sciences majors.

BIOL 340A. Preventive Dentistry Program (1-2) Cr/NC

Four hours of clinical and other activities per unit.

Prerequisites: Upper division standing and active pre dental file in the Preprofessional Health Advising Office.

Participation in clinic, dental observation, marketing activities and two field trips. Maximum credit four units. Not applicable to biological sciences majors.

BIOL 340B. Preventive Dentistry Leaders (2-4)

Four hours of activity per unit.

Prerequisites: Biology 340A and consent of instructor.

Supervision of one component of Preventive Dentistry Program. Maximum credit four units. Not applicable to biological sciences majors.

BIOL 341. The Human Body (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A.2. Life Sciences.

Survey of human body with emphasis on intricacy of design and integration of various organ systems. Not open to nursing, exercise and nutritional sciences, or biological sciences majors, or to students with credit in any college level human physiology or anatomy course.

BIOL 344. Advanced Human Anatomy (2)

One lecture and three hours of laboratory.

Prerequisite: Biology 212 and consent of instructor.

Advanced topics in human anatomy with emphasis toward dissection of human cadavers. Dissection techniques, pathology, and special training in prosection. Not applicable to biological sciences majors.

BIOL 348. Health Professions Internship (1-3)

Prerequisites: 3.0 overall GPA, completion of lower division writing competency requirement, and consent of instructor.

Internship in a health care setting; term paper required. Maximum credit three units. Not applicable to biological sciences majors.

BIOL 350. General Microbiology (4) I, II

Two lectures and six hours of laboratory.

Prerequisites: Biology 201A, 201B, and 215; Chemistry 231.

Actions and reactions of microorganisms in response to their environment, both natural and as changed by other organisms, including man. Also includes an introduction to pathogens.

BIOL 352. Genetics and Evolution (3) I, II

Prerequisites: Biology 201A, 201B, and 215.

Principles of transmission genetics, population genetics, and evolution.

BIOL 354. Ecology and the Environment (3) I, II

Prerequisites: Biology 201A, 201B, 215; and Mathematics 122

Fundamental concepts in population, community, and ecosystem ecology.

BIOL 354L. Experimental Ecology (2)

One hour of discussion and three hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 354.

Methods of research in ecology; approaches to analysis of populations, communities, and ecosystems.

BIOL 366. Biochemistry, Cell and Molecular Biology II (4) I, II

Prerequisite: Chemistry 365.

Concepts of modern integrated molecular biology, cell biology, and biochemistry.

BIOL 366L. Biochemistry, Cell and Molecular Biology Laboratory I (2)

Six hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 366.

Basic laboratory approaches in biochemistry, cell biology, and molecular biology.

BIOL 436. Human Physiology Laboratory (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.

BIOL 450. Development of Modern Biology (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.

BIOL 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.

BIOL 460. Economic Botany (3)

Two lectures and three hours of laboratory.

Prerequisites: Biology 201A and 201B.

Plants of agricultural, economic, and historical importance. Topics include basic plant morphology, anatomy, and taxonomy, plant genetics, agricultural breeding and propagation techniques, vegetables and fruits, spices and herbs, beverage plants, woods and plant fibers.

BIOL 461. Underwater Research Methods and Techniques (3)

Two lectures and three hours of laboratory.

Prerequisites: Biology 201B and Exercise and Nutritional Sciences 323 or Oceanography 306, and three upper division units in biology, Advanced Openwater or Scientific Scuba Diving Certification, diving skills proficiency evaluation, acceptable openwater diving equipment, medical examination, approval for scuba diving and waiver for scuba diving.

Preparation for scientific research underwater; scientific methods, techniques, operations and specialized equipment; scientific diver training and certification requirements; diving procedures and regulations; diving equipment; diving physiology hyperbaric conditions, fitness, practical diving skills, safety and emergency procedures.

BIOL 467. Biochemistry, Cell and Molecular Biology III (4)

Prerequisite: Biology 366.

Advanced concepts of modern integrated cell biology, molecular biology and biochemistry.

BIOL 474. Histology (4)

Two lectures and six hours of laboratory.

Prerequisite: Biology 201B. Recommended: Biology 212.

Descriptive microscopic anatomy of cells, tissues and organs of mammals with special emphasis on humans.

BIOL 485. Principles of Immunology (3)

Prerequisites: Biology 201A, Chemistry 365, credit or concurrent registration in Biology 366.

Basic areas of immunology to include inflammation, generation of immune response, antibody production, lymphocyte development and function, hypersensitivities and AIDS, major histocompatibility complex and cytokines. Designed to give a basic background in the immune system.

BIOL 490. Undergraduate Honors Research (3)

Prerequisites: Upper division standing with GPA of at least 3.20, four units of Biology 499, and approval of honors research program coordinator.

Experience in designing and carrying out independent research in a laboratory setting plus a written record of experimental design and results in the form of an honors research thesis to be presented at an undergraduate research forum and/or defended before a committee. Does not satisfy laboratory requirement in major. Maximum credit six units.

BIOL 496. Experimental Topics (1-4)

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

BIOL 497. Undergraduate Research (1-3) I, II, S

Fifty hours of research per unit.

Prerequisites: Upper division status in good standing and consent of instructor.

Individual research project, supervised by faculty. Research course with research paper or other presentation of results. Maximum credit six units applicable to general biology major, three units to microbiology major, for any combination of Biology 497 and 499.

BIOL 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.

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

Fifty hours of activity per unit.

Prerequisites: Upper division status in good standing and consent of instructor.

Individual study, internship, other supervised laboratory or field project or experience. Credit involves 50 hour activity per unit per semester and a report. Maximum credit six units applicable to general biology major, three units applicable to microbiology major, for any combination of Biology 497 and 499.

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

Writing Requirement: Completion of the Graduation Writing Assessment Requirement or the eligibility to enroll in an upper division writing course is a prerequisite for all upper division biology courses numbered 450 and above.

BIOL 508. Coevolution (3)

Prerequisites: Biology 352 and 354.

Coevolution in interspecific interactions, like herbivory, predation, parasitism, competition, pollination, and mimicry.

BIOL 509. Evolutionary Biology (3)

Two lectures and two hours of activity.

Prerequisite: Biology 352.

Evolutionary biology including genetics of populations, speciation, systematic biology, adaptation, role of development in evolution, evolution of behavior, and comparative biology. Evolutionary biology as the central organizing principle of biology.

BIOL 510. Molecular Evolution (3)

Prerequisites: Biology 352 and 366 or graduate standing.

Molecular evolution including concepts of homology and convergence, the nearly neutral theory of evolution, evolution of new protein function, detecting selection, multi-gene family evolution and evolutionary genomics.

BIOL 511. Evolution of Development (3)

Prerequisites: Biology 352 and 366.

Dynamic relationship between regulatory functions that control development and the evolutionary process, and vice versa, illustrated with evidence derived from developmental, phylogenetic, paleontological, computational, and ecological research. Emphasis on genomic regulatory networks of transcriptional regulatory elements and cell-signaling pathways.

BIOL 512. Evolution and Ecology of Marine Mammals (3)

Two lectures and three hours of laboratory.

Prerequisites: Biology 352 and 354.

Biology of marine mammals including pinniped, cetacean and sirenian evolution, diet and foraging strategies, social organization, reproductive strategies, echolocation, diving physiology, and conservation.

BIOL 514. Biology of the Algae (4)

Three lectures and three hours of laboratory.

Prerequisites: Biology 201B and six units of upper division coursework in the major.

Evolution, life histories, morphology, physiology, and ecology of micro and macro algae, with attention to both marine and freshwater taxa, and of sea-grasses.

BIOL 515. Marine Invertebrate Biology (4)

Two lectures and six hours of laboratory.

Prerequisite: Biology 201B. Strongly recommended: Completion of three to six upper division units in the major.

Structure and function, ecology, behavior, physiology and phyletic relationships of marine invertebrate animals.

BIOL 517. Marine Ecology (4)

Two lectures and six hours of laboratory.

Prerequisite: Biology 354.

Ecological concepts as applied to pelagic and benthic marine organisms and their environment. Field and laboratory experience in oceanographic techniques, particularly the coastal environment.

BIOL 520. Ichthyology (4)

Three lectures and three hours of laboratory.

Prerequisite: Biology 201B. Strongly recommended: Completion of three to six upper division units in the major.

Identification, systematics, evolution, structure, physiology, behavior and ecology of fishes.

BIOL 521. Advanced General Microbiology (2)

Prerequisites: Biology 350 or an introductory course in microbiology and consent of instructor.

Taxonomy, comparative physiology and ecology of representative microorganisms found in various natural environments.

BIOL 521L. Advanced Microbiology Laboratory (3)

One lecture and six hours of laboratory.

Prerequisites: Biology 350, 366, 366L, and credit or concurrent registration in Biology 521 or 584. Strongly recommended: Credit or concurrent registration in an upper division writing course.

Procedures and methods for isolation, characterization and identification of prokaryotes from soil, water and humans; includes both pathogenic and non-pathogenic prokaryotes.

BIOL 523. Herpetology (4)

Two lectures and six hours of laboratory.

Prerequisite: Biology 201B. Recommended: Biology 352.

Evolution, systematics, distribution, and ecology of amphibians and reptiles of the world.

BIOL 524. Ornithology (4)

Two lectures, six hours of laboratory or field excursions, and a field project.

Prerequisite: Biology 201B. Strongly recommended: Completion of three to six upper division units in the major.

Study and identification of birds, especially those of the Pacific Coast and the San Diego region.

BIOL 525. Mammalogy (4)

Two lectures and six hours of laboratory.

Prerequisite: Biology 201B. Strongly recommended: Completion of three to six upper division units in the major.

Evolution, systematics, distribution and ecology of mammals of the world.

BIOL 526. Terrestrial Arthropod Biology (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.

BIOL 530. Plant Systematics (4)

Two lectures and six hours of laboratory, field trips.

Prerequisite: Biology 201B. Strongly recommended: Completion of three to six upper division units in the major.

Plant description, identification, classification, and nomenclature with emphasis on evolutionary patterns, interdisciplinary data acquisition, and phylogenetic analysis.

BIOL 531. Taxonomy of California Plants (4)

Two lectures and six hours of laboratory.

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.

BIOL 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.

BIOL 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.

BIOL 537. Population Modeling for Conservation (3)

Two lectures and three hours of laboratory.

Prerequisite: Biology 354.

Applied population modeling in context of conservation. How mathematical models can be used to simulate population dynamics of single and multiple species and rank conservation management options.

BIOL 538. Environmental Policy and Regulations (3)

Prerequisite: Biology 354.

History of biological conservation and environmental laws; regulations governing biological resources; role of biologists; environmental impact analysis, operation of regulatory and resource agencies; biologists as expert witnesses; wetland protection and mitigation, state heritage programs, role of nongovernmental agencies.

BIOL 540. Conservation Ecology (3)

Two lectures and three hours of laboratory.

Prerequisite: Biology 354.

Human impacts on ecosystems, the resultant endangerment and extinction of plant and animal species, and strategies for the protection and recovery of threatened forms.

BIOL 541. Ecology of Fishes and Fisheries Biology (3)

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.

BIOL 549. Microbial Genetics and Physiology (3)

Prerequisite: Biology 350 or 366.

Physiology of microbial growth, bacterial structure and function, genetics of bacteriophages and bacteria.

BIOL 551. Recombinant DNA (3)

Prerequisites: Biology 350, 366, 366L, Chemistry 365, and credit or concurrent registration in Biology 467 or 549.

Theory and practice of recombinant DNA techniques.

BIOL 554. Molecular Virology (3)

Prerequisites: Biology 366 and Chemistry 365.

Molecular aspects of structure, genetics, and replication of viruses, virus-host interactions, pathogenesis of virus infections, diagnostic virology, and antiviral vaccines and drugs; emphasis on human pathogens.

BIOL 555. Principles of Electron Microscopy (1)

Prerequisites: Biology 201B and Physics 180B.

Principles of scanning and transmission electron microscopy including theoretical basis of sample preparation.

BIOL 556. Scanning Electron Microscopy Laboratory (2)

Six hours of laboratory.

Prerequisite: Credit or concurrent registration in Biology 555.

Biological specimen preparation and operation of scanning electron microscope.

BIOL 557. Transmission Electron Microscopy Laboratory (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.

BIOL 560. Animal Physiology (3)

Prerequisites: Biology 201A, 201B; Chemistry 365; Physics 180B, 182A, and 182B.

Physiology of vertebrate and invertebrate animals with emphasis on diversity of solutions to physiological problems and on functional integration of organ systems.

BIOL 561. Radiation Biology (3)

Prerequisites: Biology 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.

BIOL 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.

BIOL 563. Plant Physiology (3)

Prerequisites: Biology 201B and Chemistry 365.

Activities of plants, including photosynthesis, ion transport, translocation, water relations, growth and development.

BIOL 570. Neurobiology (3)

Prerequisite: Biology 366 or 590 or Psychology 260.

Structure and function of the nervous system to include cellular and molecular mechanisms underlying neuronal excitability and synaptic function, nervous system development, cellular and systems analysis of sensory, motor and higher brain functions. Emphasis on experimental approaches.

BIOL 575. Molecular Basis of Heart Disease (3)

Prerequisite: Biology 366 or 590.

Current literature on the molecular basis of disordered physiology leading to heart disease.

BIOL 576. Developmental Biology (3)

Prerequisite: Biology 366. Strongly recommended: Biology 467.

Fundamental processes of development from fertilized egg to organism. Emphasis on cellular and molecular mechanisms common to development of metazoan organisms.

BIOL 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.

BIOL 584. Medical Microbiology (3)

Prerequisites: Biology 350 and 366.

Major bacterial and viral pathogens; molecular mechanisms of pathogenesis, microbial toxins and antimicrobial agents; immune response to microbial infections; biochemical and molecular diagnostics.

BIOL 585. Cellular and Molecular Immunology (3)

Prerequisites: Biology 366. Recommended: Credit or concurrent registration in Biology 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.

BIOL 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.

BIOL 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.)

BIOL 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.

BIOL 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.

BIOL 595. Computers in Biomedical Research (3)

Prerequisite: Biology 366 or 590. Recommended: Computer Science 107.

Application of micro- and minicomputers to tasks encountered by biomedical scientists in research laboratories (data acquisition and reduction, experiment control) and by physicians in medical care delivery (noninvasive imaging, clinical laboratory automation, patient file processing).

BIOL 596. Special Topics in Biology (1-4)

Prerequisite: Consent of instructor.

Advanced selected topics in modern biology. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree. Additional units acceptable with the approval of the graduate adviser.

BIOL 597A. Univariate Statistical Methods in Biology (3)

Two lectures and three hours of laboratory.

Prerequisite: Biology 350 or 352 or 354 or 366.

Application of univariate statistical techniques in biological sciences.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.



Business Administration

OFFICE: Business Administration 448
TELEPHONE: 619-594-5828
FAX: 619-594-7046

In the College of Business Administration

Faculty

Faculty assigned to teach in Business Administration are drawn from departments in the College of Business Administration.

The Majors

For majors, minors, additional programs and courses in the College of Business Administration, see listings under Accountancy, Finance, Information and Decision Systems, Management, and Marketing.

The Imperial Valley Campus offers a major in Business Administration with an Emphasis in Agribusiness. For course requirements consult the *Imperial Valley Campus Bulletin*.

Business Honors Program

The Business Honors Program offers excellent upper division business students the opportunity to explore issues in our local, regional, and global business environments focusing on the social and ethical responsibility that business has to the community and society. Honors students will enroll in a one unit business honors seminar each semester. During their enrollment they will participate in activities to promote their academic and personal growth, documenting their work in a written portfolio.

Generally, students should apply to this program at the time of application to upper division business. Applicants must submit an essay with their application. Applicants must have a 3.6 cumulative GPA or good standing in the University Honors Program. Students not meeting these requirements may petition for admission to the program. Successful completion of the Business Honors Program will be recognized at graduation. Contact Dr. Carol Venable, School of Accountancy, for more information about this program.

Impacted Program

All majors in the College of Business Administration are impacted. Before enrolling in any upper division courses in business administration, students must advance to an upper division business major and obtain a business major code. To be admitted to an upper division business major (accounting, finance, financial services, real estate, information systems, management, or marketing), students must meet the following criteria:

- Complete with a grade of C or higher: Accountancy 220 and 230; Finance 240; Information and Decision Systems 180 and 290 (290 is not required for the accounting major); Economics 101 and 102; Mathematics 120 (or other approved calculus course); and either Statistics 119 or Economics 201. These courses cannot be taken for credit/no credit (Cr/NC);
- Complete a minimum of 60 transferable semester units;
- Have a cumulative GPA of 2.9;

Students who meet all requirements except the GPA may request to be placed on the waiting list. While all spaces are usually filled by eligible students, if there is room in the program after all the fully qualified students have been accommodated, students will be admitted from the waiting list in GPA order. Contact the Business Advising Center (BA-448), 619-594-5828, for more information.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Business Administration Minor

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 230; Finance 323; Information and Decision Systems 180; Management 350; Marketing 370; and six to eight units selected from Finance 300, 327, 328; Management 352, 450; Marketing 371, 373, 476.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University. Students with a major in the College of Business Administration, Hospitality and Tourism Management, or in International Business may not complete a minor in the College of Business Administration.

Students must officially declare the minor before taking any upper division business courses. **Students must meet the prerequisites for the minor in effect at the time that they declare the minor.** The current prerequisites for admission to the business administration minor include completion of the following courses with a grade of C or better in each: Economics 101, 102 and a three unit course in statistics (Statistics 119 is recommended); completion of the General Education requirements in Communication and Critical Thinking; completion of an additional nine units in the department of the student's major, including at least six units of upper division courses. Students must also meet the GPA requirement in effect at the time that they declare the minor. Contact the Business Advising Center (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 220, 230; Finance 240; Information and Decision Systems 180, 290; Economics 101 and 102; Economics 201 or Statistics 119, and Mathematics 120 (or other approved calculus course).

The certificate will be awarded upon successful completion of the following courses: Finance 323; Information and Decision Systems 301 or 302; Management 350; Marketing 370; and three units selected from Finance 321, 589; or Management 356. (15 units)

Courses (B A)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

B A 100A. Exploration of Business I (1) Cr/NC

Prerequisite: Registration in the Faculty-Student Mentor Program.

Selecting and preparing for business careers. Business departments, faculty, students, and alumni provide information on courses, skills needed, opportunities, and drawbacks of various occupations. Career services provides advice. Students complete skills/interest assessments that are explained by career services.

B A 100B. Exploration of Business II (1) Cr/NC

Prerequisite: Registration in the Faculty-Student Mentor Program.

Continuation of exploration of business careers. Additional business departments and other campus services provide information on courses, skills needed, opportunities, and drawbacks of various occupations.

UPPER DIVISION COURSES (Intended for Undergraduates)

B A 400. Business Honors Seminar (1) Cr/NC

Prerequisite: Admission to the College of Business Honors Program.

Current issues affecting local, national, and global business environments. Maximum credit four units.

B A 404. Small Business Consulting (3)

Prerequisites: Approved upper division business major; Finance 323; Information and Decision Systems 301 or 302; Management 350; Marketing 370; and consent of instructor.

Counseling of existing small businesses. Application of principles from all fields of business administration. Maximum credit six units.

B A 496. Selected Topics in Business Administration (1-4)

Prerequisite: Consent of department chair.

Selected areas of concern in business administration. See *Class Schedule* for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.



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<http://www.sci.sdsu.edu/chemistry>

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, Liang, Love, McAlpine

Offered by the Department of Chemistry and Biochemistry

Doctor of Philosophy degree in chemistry.
Master of Arts degree in chemistry.
Master of Science degree in chemistry.
Major in chemical physics with the B.S. degree in applied arts and sciences.
Major in chemistry with the B.S. degree in applied arts and sciences with the Certificate of the American Chemical Society.
Emphasis in biochemistry.
Major in chemistry with the B.A. degree in liberal arts and sciences, with or without the Certificate of the American Chemical Society.
Teaching major in chemistry for the single subject teaching credential in science.
Minor in chemistry.

The Major

Through the study of chemistry students can better understand their environment and develop new materials that provide for a higher quality of life. Chemists are involved in a wide range of careers in research, development and the production of new goods. Basic chemical research provides society with discoveries of new substances and the means to predict their chemical and physical properties. In developmental chemistry, professionals find ways to put them to use. There are careers in methods of production to provide these materials to society in a cost-effective way. In each of these areas, there are subspecialties in analytical, biochemical, inorganic, organic, and physical chemistry.

The Department of Chemistry and Biochemistry offers five degree programs leading to the Bachelor of Arts degree, the Bachelor of Science degree, the Master of Arts degree, the Master of Science degree, and the Doctor of Philosophy degree (with the University of California, San Diego).

There are several options available in the undergraduate program for those wishing either a major or a minor in chemistry. A chemistry major with the Bachelor of Science degree and certificate of the American Chemical Society is designed to qualify students for many types of positions as chemists and for admission to graduate study.

The chemistry major with the Bachelor of Arts degree and certificate of the American Chemical Society is specifically designed to prepare students for careers and graduate work requiring a strong chemistry background. With an appropriate choice of electives, graduates can meet the requirements for admission to medical, dental and pharmaceutical schools. A minor in biology is recommended.

The use of chemistry electives allows a student to focus on a particular area in chemistry such as analytical chemistry, biochemistry, chemical physics, inorganic chemistry, organic chemistry, or physical chemistry.

Chemistry Major

With the B.S. Degree in Applied Arts and Sciences

(Major Code: 19051)

and Certificate of the American Chemical Society

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Chemistry 200, 201, 231, 251; Mathematics 150, 151, 252; and Physics 195, 195L, 196, 196L. (39 units) Recommended: Physics 197 and 197L.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Chemistry 410A-410B, 417, 427, 431, 457, 520A-520B, 550, 560A, one unit of 498, and eight units of upper division electives in chemistry. Six of the eight units may be in related subjects with the approval of the department.

Emphasis in Biochemistry

Preparation for the Major. Chemistry 200, 201, 231, 251; Biology 201B; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L. (43 units) Recommended: Physics 197 and 197L.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Chemistry 410A-410B, 431, 457, 550, 560A, 567; 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, 561, 561L, 563, 570, 585, 590, 595. The addition of Chemistry 417, 427, and 520A qualifies this program for ACS certification.

Chemistry Major

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

(Major Code: 19051)

and Certificate of the American Chemical Society

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

A minor is not required with this major.

Preparation for the Major. Chemistry 200, 201, 231, 251; Mathematics 150, 151, 252; and Physics 195, 195L, 196, 196L. (39 units) Recommended: Physics 197 and 197L.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units in chemistry to include Chemistry 410A-410B, 417, 427, 431, 457, 520A, 550, 560A; one unit of Chemistry 498, and five units of electives selected from Chemistry 496, 498, or any 500-level course in chemistry.

Chemistry Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 19051)

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

Preparation for the Major. Chemistry 200, 201, 231, 251; Biology 201A, 201B; Mathematics 150, 151, 252; and Physics 195, 195L, 196, 196L. (47 units) Recommended: Physics 197 and 197L.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 24 upper division units in chemistry to include Chemistry 410A-410B, 417, 431, 457, 550, and seven units of electives in chemistry. Chemistry 560A-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.A. 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 CSET examinations or complete an approved academic program. The single subject teaching credential in science preparation program described below satisfies the academic requirements for a student planning to teach integrated science and chemistry at the secondary level. Entrance into the postbaccalaureate credentialing program in part requires certification of subject matter competency by this department. This certification requires completion of the academic program with the required grades, submission of a satisfactory portfolio, and the recommendation of the department. Contact the subject matter preparation program adviser. In addition, all candidates for a Single Subject Teaching credential at San Diego State University must complete the requirements outlined in the catalog under Teacher Education or Policy Studies. Contact the School of Teacher Education or the Policy Studies in Language and Cross-Cultural Education Department for up-to-date information on prerequisites.

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Candidates who wish to graduate with 122 units must complete one of two American Institutions courses at the upper division level or satisfy the California state and local government portion of American Institutions by passing the California Government examination available through the Office of Student Testing, Assessment and Research.

A minor is not required for this major.

Preparation for the Major. Astronomy 109, 201; Biology 201A, 201B; Chemistry 200, 201, 231, 251; Communication 103; Mathematics 150, 151; Physics 180A, 180B, 182A, 182B and Mathematics 252 **OR** Physics 195, 195L, 196, 196L, 197, 197L; Teacher Education 211. (55 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 31 upper division units to include Chemistry 410A, 410B, 417, 431, 457, 497 (1 unit), 520A, 550, 560A; Geological Sciences 412; Natural Science 315.

Additional Requirements for Subject Matter Preparation Certification

Satisfactory Grades. At most one course with a C- or lower among the courses listed under Preparation for the Major, and at most one course with a C- or lower among the courses listed under the Major. If a course is repeated, the highest grade will count.

Formative Assessment. Completion of a satisfactory, preliminary portfolio two semesters prior to graduation. Contact the subject matter preparation adviser for information.

Summative Assessment. Completion of a satisfactory, final portfolio, and a positive recommendation from a committee consisting of the senior project supervisor, the Department of Chemistry and Biochemistry chair, and the subject matter preparation program adviser with input from the student's upper division laboratory instructors.

Chemical Physics Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 19081)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Individual master plans for each student are filed with the chemistry and physics undergraduate advisers and the Office of Advising and Evaluations.

A minor is not required with this major.

Preparation for the Major. Chemistry 200, 201, 231, 251; Mathematics 150, 151, and 252; Physics 195, 195L, 196, 196L, 197, 197L. (43 units)

Recommended: A course in computer programming.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 39 upper division units to include Chemistry 410A-410B, 417, 550; Mathematics 342A, 342B; Physics 311, 350, 400A, 410; six units selected from Chemistry 431, 457, 510, 515, Physics 357, 360, 400B, Chemistry 538 or Physics 538; and Research Project: Chemistry 497 (3 units) or Chemistry 498 (3 units) or Physics 498A and 498B (3 units).

Chemistry Minor

The following courses are prerequisite to the chemistry minor and do not count toward the 15 units required for the minor: Chemistry 200, 201. (10 units.)

The minor in chemistry consists of 15 units in chemistry to include Chemistry 231 and 251; and six units of upper division electives. Chemistry 410A-410B* are strongly recommended.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

* Additional prerequisites in mathematics and physics required for these courses.

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 Sem.	2nd Sem.		1st Sem.	2nd Sem.
First year			Second year		
Chemistry 200	5	—	Chemistry 231	4	—
Chemistry 201	—	5	Chemistry 251	—	5
Mathematics 150, 151	4	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 (recommended)	—	4
Communication 103	3	—	General Education	3	3
	15	16		15	16
Units			Units		
	1st Sem.	2nd Sem.		1st Sem.	2nd Sem.
Third year			Fourth year		
Chemistry 410A-410B	4	3	Chemistry 417	—	2
Chemistry 427	—	1	Chemistry 457	2	—
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 Sem.	2nd Sem.		1st Sem.	2nd Sem.
First year			Second year		
Chemistry 200	5	—	Chemistry 231	4	—
Chemistry 201	—	5	Chemistry 251	—	5
Mathematics 150	—	4	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	—			
	14	16		15	16
Units			Units		
	1st Sem.	2nd Sem.		1st Sem.	2nd Sem.
Third year			Fourth year		
Chemistry 410A-410B	4	3	Chemistry 417	—	2
Chemistry 427	—	1	Chemistry 457	2	—
Chemistry 520A	3	—	Chemistry 498	1	—
Chemistry 560A	—	3	Chemistry 550	2	—
Physics 197, 197L (recommended)	4	—	Chemistry Elective	2	3
American Institutions	3	3	General Education	6	9
General Education	—	6			
	14	16		13	14

Courses (CHEM)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

CHEM 100. Introduction to General Chemistry with Laboratory (4) 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.

CHEM 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.

CHEM 130. Elementary Organic Chemistry (3) I, II

Prerequisite: Chemistry 100, 105, or 200.

Introduction to compounds of carbon including both aliphatic and aromatic substances. Not open to students with credit in Chemistry 230, 231, or 232.

CHEM 160. Introductory Biochemistry (3) II

Prerequisite: Chemistry 130.

Fundamental principles of the chemistry of living processes. This course intended primarily for majors in nursing, nutrition, and related fields.

CHEM 200. General Chemistry (5) I, II (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.

CHEM 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.

CHEM 202. General Chemistry for Engineers (4) I, II

Three lectures and three hours of laboratory.

Prerequisites: Two years of high school algebra. High school chemistry or a grade of C or better in Chemistry 105.

General principles of chemistry with emphasis on inorganic and physical chemistry and chemistry basics for engineers. Students with credit in Chemistry 100, 105 and 202 will receive a total of four units of credit toward graduation. Not open to students with credit in Chemistry 200. Restricted to engineering majors.

CHEM 231. Organic Chemistry (4) I, II

Three lectures and three hours of laboratory.

Prerequisite: Chemistry 201.

Properties and synthesis of organic compounds including reaction mechanisms. First half of a one-year course. Not open to students with credit in Chemistry 232 or 232L.

CHEM 232. Organic Chemistry (3) I, II

Prerequisites: Chemistry 201 and consent of instructor.

Same course as Chemistry 231 without laboratory. Not open to students with credit in Chemistry 231.

CHEM 232L. Organic Chemistry Laboratory (1) I, II

Three hours of laboratory.

Prerequisites: Chemistry 201 and consent of instructor.

Properties and synthesis of organic compounds including methods of separation and purification techniques. Same course as laboratory portion of Chemistry 231. Not open to students with credit in Chemistry 231.

CHEM 251. Analytical Chemistry (5) II

Three lectures and six hours of laboratory.

Prerequisites: Chemistry 201 and credit or concurrent registration in Mathematics 122 or 150.

Introduction to the theory and practice of analytical chemistry including gravimetric, volumetric, and instrumental methods.

CHEM 296. Experimental Topics (1-4)

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

CHEM 297. Introduction to Chemical Research (1-3)

Prerequisite: Consent of instructor.

Individual laboratory investigation. Maximum credit six units.

CHEM 299. Special Study (1-4)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Intended for Undergraduates)

CHEM 300. Mysteries and Molecules (3)

Prerequisites: Chemistry 100 or completion of General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning.

Techniques and case studies of mysteries solved by molecular analysis: chemical and DNA analysis of crime scenes, biochemical explanations of mysterious deaths and accidents, molecular hallmarks of forgery, chemical methods in crime deterrence, chemical causes of fires and structure failure. Not applicable to chemistry majors.

CHEM 308. Chemistry as a Unifying Science (3)

Prerequisites: Biology 100 or 203; Geological Sciences 104 or Natural Science 100; Geological Sciences 412 or Natural Science 412.

Atomic-molecular theory of matter; use of concepts of chemistry to explain observable phenomena in everyday life, including physical properties and chemical changes; connections between chemistry and biology, earth science, and physical science; alternative conceptions about science. Capstone science course for liberal studies majors. Open only to liberal studies majors. Not applicable to chemistry majors.

CHEM 361. Fundamentals of Biochemistry (3)

Prerequisites: Chemistry 231 and 365.

The chemistry of intermediary metabolism and its regulation. Not open to students with credit in Chemistry 560B, 562, or 563. (Formerly numbered Chemistry 361B.)

CHEM 365. Biochemistry, Cell and Molecular Biology I (3)

Prerequisites: Biology 201A and Chemistry 231.

Basic concepts of modern integrated biochemistry, cell and molecular biology. Not open to students with credit in Chemistry 361A or 560A. Applicable to chemistry major or minor only with approval from department.

CHEM 368. Enzymes and Macromolecular Interactions (1)

Prerequisite: Credit or concurrent registration in Chemistry 365.

Enzymology of bisubstrate reactions, allosteric enzymes and biochemical control mechanisms, enzyme mechanisms, nucleic acid structure, replication, and function, sequencing, PCR, cellular protein synthesis, oligosaccharide synthesis. Not open to students with credit in Chemistry 361A or 560A. Applicable to chemistry major or minor only with approval from department.

CHEM 410A-410B. Physical Chemistry (4-3) I, II

410A: Three lectures and three hours of laboratory.

410B: Three lectures.

Prerequisites: Chemistry 231 and 251; Mathematics 252; Physics 196 and 196L. Recommended: Physics 197 and 197L. Chemistry 410A is prerequisite to 410B.

Theoretical principles of chemistry with emphasis on mathematical relations. Theory and practice in acquisition and statistical analysis of physical measurements on chemical systems.

CHEM 417. Advanced Physical Chemistry Laboratory (2) II

Six hours of laboratory.

Prerequisites: Chemistry 251, 410B. Recommended: Chemistry 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.

CHEM 427. Inorganic Chemistry Laboratory (1) II

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Chemistry 520A.

Laboratory course designed to introduce students to techniques used in synthesis, characterization, and manipulation of inorganic compounds and materials.

CHEM 431. Organic Chemistry (4) I, II

Three lectures and three hours of laboratory.

Prerequisite: Chemistry 231.

Continuation of Chemistry 231. Not open to students with credit in Chemistry 432 and 432L.

CHEM 432. Organic Chemistry (3) I, II

Prerequisites: Chemistry 231 and consent of instructor.

Continuation of Chemistry 231. Same course as Chemistry 431 without laboratory. Not open to students with credit in Chemistry 431.

CHEM 432L. Organic Chemistry Laboratory (1) I, II

Three hours of laboratory.

Prerequisites: Chemistry 231 and consent of instructor.

Continuation of laboratory portion of Chemistry 231. Not open to students with credit in Chemistry 431.

CHEM 457. Instrumental Methods of Chemical Analysis Laboratory (2) I

Six hours of laboratory.

Prerequisites: Chemistry 251, 431 and credit or concurrent registration in Chemistry 410B; concurrent registration in Chemistry 550.

Application of instrumental methods of chemical separations and analysis frequently used in all subdisciplines of chemistry.

CHEM 467L. Biochemistry, Cell and Molecular Biology Laboratory (2) I, II

Six hours of laboratory.

Prerequisites: Biology 366, 366L, credit or concurrent registration in Biology 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.

CHEM 496. Selected Topics in Chemistry (1-4)

Prerequisite: Consent of instructor.

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

CHEM 497. Undergraduate Research (1-3) Cr/NC I, II, S

Prerequisites: Chemistry 231 and 251.

Individual laboratory investigation. Maximum credit six units.

CHEM 498. Senior Project (1-3) I, II

Prerequisite: Three one-year courses in chemistry.

Individual literature and/or laboratory investigation and report on a problem. Maximum credit three units.

CHEM 499. Special Study (1-4) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

CHEM 510. Advanced Physical Chemistry (3)

Prerequisite: Chemistry 410B.

Problems in chemical thermodynamics, statistical mechanics, chemical kinetics, quantum chemistry and molecular structure and spectroscopy, with applications.

CHEM 515. Computational Chemistry (3)

Prerequisites: Chemistry 410A and 410B.

Overview of modern computational chemistry. Use of computational chemistry tools and their application to problems of chemical interest.

CHEM 520A-520B. Inorganic Chemistry (3-3) I, II

Prerequisite: 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.

CHEM 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; structure-reactivity correlations: Electronic structure of molecules (qualitative molecular orbital theory); stereochemistry; and linear free energy relationships.

CHEM 531. Synthetic Organic Chemistry (3)

Prerequisite: Chemistry 431.

Modern methods, strategies, and mechanisms in advanced organic synthesis. Retrosynthetic analysis of and synthetic routes towards biologically important compounds.

CHEM 537. Organic Qualitative Analysis (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.

CHEM 538. Polymer Science (3)

(Same course as Physics 538.)

Prerequisites: Chemistry 200 or 202; and Chemistry 410B or Physics 360 or Mechanical Engineering 350 or 352.

Structure, synthesis, physical properties, and utilities of polymers.

CHEM 550. Instrumental Methods of Chemical Analysis (2) I

Prerequisites: Chemistry 231 and credit or concurrent registration in Chemistry 410A; concurrent registration in Chemistry 457 for undergraduate students only. Chemical Physics majors can replace the Chemistry 457 corequisite with credit or concurrent registration in Physics 311.

Theory and application of those instrumental methods of chemical separation and analysis most frequently used in all subdisciplines of chemistry.

CHEM 551. Advanced Analytical Chemistry (3) II

Prerequisite: Chemistry 550.

Expanded treatment of instrumental methods for separation and quantification not covered in Chemistry 550. Non-instrumental separations, quantitative organic microanalysis, sampling theory and techniques, reaction rate applications and interpretation of experimental data.

CHEM 560A-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 365. Chemistry 560B is not open to students with credit in Chemistry 361, 562 or 563.

CHEM 562. Intermediary Metabolism (2)

Prerequisites: Chemistry 560A or Chemistry 365 and 368.

Catabolic and biosynthetic pathways of carbohydrate, lipid, amino acid, and nucleotide metabolism; TCA cycle, mitochondrial and chloroplast electron transport chains, ATP generation and their interactions and control. Not open to students with credit in Chemistry 361 or 560B.

CHEM 563. Nucleic Acid Function and Protein Synthesis (2)

Prerequisites: Chemistry 560A or Chemistry 365 and 368.

DNA replication, RNA transcription, RNA processing, and protein translation, including chemical mechanisms of synthesis and cellular mechanisms of regulating gene expression; genomics, recombinant DNA, and DNA topology. Not open to students with credit in Chemistry 361 or 560B.

CHEM 564. Receptor Biochemistry and Protein Modification (2)

Prerequisites: Chemistry 560A or Chemistry 365 and 368.

Biochemical study of receptors, second messengers, and cellular proteins that participate in extracellular and intracellular communication, with focus on protein structures, post-translational modifications, and biochemical mechanisms that regulate receptors and effector enzymes.

CHEM 567. Biochemistry Laboratory (3) II

One lecture and six hours of laboratory.

Prerequisite: Chemistry 560A.

Theory and practice of procedures used in study of life at molecular level. Includes purification and characterization of enzymes, isolation of cell components, and use of radioactive tracer techniques.

CHEM 571. Environmental Chemistry (3)

Prerequisites: Chemistry 231 and 251; consent of instructor for all other majors.

Fundamentals of chemistry applied to environmental problems. Chemistry of ecosystems; analysis of natural constituents and pollutants; sampling methods; transport of contaminants; regulations and public policy.

CHEM 596. Advanced Special Topics in Chemistry (1-3)

Prerequisite: Consent of instructor.

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

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.



Chicana and Chicano Studies

OFFICE: Adams Humanities 3162
TELEPHONE: 619-594-6452

In the College of Arts and Letters

Faculty

Emeritus: Nuñez, Villarino

Chair: Griswold del Castillo

Professors: Griswold del Castillo, Hicks, Ortiz

Associate Professors: de la Luz Ibarra, Del Castillo, Iglesias Prieto, Ojeda, Rodriguez

Offered by the Department

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 Magdalena Mora Award to be awarded to the winner of the outstanding history essay in Mexicana/Chicana women at the undergraduate level.

Chicana and Chicano studies majors may choose one of three areas: **Humanities**, which includes courses designed to increase the student's awareness of the regional diversity of Chicana and Chicano communities, as well as intellectual, aesthetic, literary, historical, ethical, and human values; **Social Science**, including courses which analyze social institutions and how they affect the individual and also emphasize contemporary Mexican American issues as they relate to the larger society; and **Border Studies**, which includes multidisciplinary courses focusing on the social, economic, and human dimensions of the U.S. Mexican border as it affects Mexican origin populations in the United States. Areas of study include political science, anthropology, economics, sociology, and history.

Bilingual/bicultural graduates are sought after more than ever before. A student with a major or minor in Chicana and Chicano studies has a good possibility of securing a position and advancing. Although employment opportunities in regular classroom teaching and other careers have remained fairly constant, the number of positions for bilingual/bicultural graduates has continued to increase.

Chicana and Chicano studies is also an excellent major as preparation for postgraduate study in various professional schools. For example, students can continue their studies for advanced degrees in law, with positions specializing in minority or barrio problems; social work, as a medical or psychiatric social worker in a minority community; public administration; librarianship; and business administration, with careers in accounting, marketing, bank management, and insurance.

Advising

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

Chicana and Chicano Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22131)

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

A minor is not required with this major.

Preparation for the Major. Chicana and Chicano Studies 100 or 150 and 110. (6 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Students are encouraged to satisfy this language requirement in Spanish. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 24 upper division units to include Chicana and Chicano Studies 301 and 21 units selected from one area of specialization: (social sciences) Chicana and Chicano Studies 303, 306, 320, 340, 350A-350B, 355, 480, 498; or (humanities) Chicana and Chicano Studies 310, 314A, 314B, 335, 375, 376, 380, 396W, 400, 450; or (border studies) Chicana and Chicano Studies 306, 355, 375, 380, 498, Economics 565, History 551, Political Science 568. Up to six units, with appropriate content, can be applied to each area of specialization from Chicana and Chicano Studies 496, 499, and 596.

Chicana and Chicano Studies Minor

The minor in Chicana and Chicano studies consists of a minimum of 18 units in Chicana and Chicano studies to include two courses selected from Chicana and Chicano Studies 100, 110, or 150; and 12 units of upper division courses selected from one area of specialization (social sciences) Chicana and Chicano Studies 301, 303, 306, 320, 340, 350A-350B, 355, 480, 498; or (humanities) Chicana and Chicano Studies 310, 314A, 314B, 335, 375, 376, 380, 396W, 400, 450; or (border studies) Chicana and Chicano Studies 306, 355, 375, 380, 498, Economics 565, History 551, Political Science 568. Up to six units, with appropriate content, can be applied to each area of specialization from Chicana and Chicano Studies 496, 499, and 596.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

United States-Mexican Border Studies Minor

The minor in United States-Mexican Border Studies consists of a minimum of 22 units, 12 units of which must be in upper division courses to include Chicana and Chicano Studies 355, Spanish 103, and six units selected from Chicana and Chicano Studies 306, 310, 375, 376, 380.

The following additional nine units must be taken to complete the minor:

International Economic/Business: Three units selected from Economics 360, 365, 458, 565; Finance 329; Marketing 376.

Regional Geography/History and Politics/Society: Six units selected from Communication 591; Geography 323; History 550, 551; Political Science 481, 555, 568; Social Work 350; Sociology 335, 350, 355.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

United States-Mexico Border Studies Certificate

The United States-Mexico Border Studies Certificate program is an interdisciplinary program integrating border studies courses from academic units throughout the campus. The objective of the program is to train students from diverse academic backgrounds within a multidisciplinary border studies curriculum that provides direct experience in border institutions and policy issues in both the public and private sectors. The program requires 21 units and a level of Spanish proficiency, 3 on a scale of 5, as indicated on the Foreign Service Language Examination. Students must apply for admission to the program before the completion of nine certificate units and are required to plan their program with an adviser. Contact the Department of Chicana and Chicano Studies.

Required courses: Chicana and Chicano Studies 355 and three units of an internship, either Chicana and Chicano Studies 498 or an internship from the student's major if it is carried out as a 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)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

CCS 100. 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.

CCS 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.)

CCS 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.

CCS 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 97.

Training for students from Mexican American backgrounds in the process of written expression. English grammar and composition; the essay, the term paper. Chicana and Chicano Studies 111B is equivalent to Rhetoric and Writing Studies 100. Not open to students with credit in Africana Studies 120 or English 100 or Linguistics 100 or General Studies 260A or Rhetoric and Writing Studies 100 or 101 or higher-numbered composition course.

CCS 120A-120B. 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.

CCS 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.

CCS 150. Critical Issues in Chicana Studies (3)

Critical themes in Chicana feminist scholarship: power and resistance; work, family, and culture; cultural representations and presentations; social and biological reproduction.

CCS 200. Intermediate Expository Research and Writing (3)

Especially designed for bilingual/bicultural students.

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements and Chicana and Chicano Studies 111B or Africana Studies 120 or English 100 or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Intermediate composition. Practice in reading, writing, and critical thinking using interdisciplinary sources. Research skills using primary and secondary sources. Argumentative writing skills. Not open to students with credit in Africana Studies 200, English 200, General Studies 260D, Linguistics 200, or Rhetoric and Writing Studies 200.

CCS 296. Experimental Topics (1-4)

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

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

CCS 301. Political Economy of the Chicano People (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Chicana and Chicano Studies 110.

Political and economic roots of the oppression and exploitation of the Chicano from historical, institutional and theoretical points of view. Parallels between the experience of the Chicano and other Hispanic groups.

CCS 303. 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.

CCS 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.

CCS 310. Mexican and Chicano Music (3) I, II

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

Music of Mexico and the Southwest including folk dances appropriate for children and adults. Emphasis on the corrido, its history and development in Mexico and the US. Course will be taught bilingually.

CCS 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.

CCS 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.

CCS 320. Mexican American Life Styles (3)

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

Social relations and cultural evolution in the Mexican American community, female-male relationships, and family. Influence of Spanish-Mexican feudal cultural heritage and US industrial-capitalist society. Comparative cross-cultural social science methodology. Includes interview techniques.

CCS 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.

**CCS 340. Mexican Women in Historical Perspective:
PreColumbian to 1848 (3)**

Prerequisites recommended: Chicana and Chicano Studies 111B and upper division standing.

US-Mexican history or Mexican women from PreColumbian Mexican era to annexation of Mexico's northern territories by US. Theoretical and methodological issues appraised as are gender-based norms, class and racial distinctions, and significance of female historical figures to Mexican identity.

CCS 350A-350B. Chicano History (3-3) I, II

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

Semester I: Review of indigenous origins; Hispanic institutions and northward expansion; the Mexican Republic. Semester II: Early US encroachment and the Mexican American War; Chicano influences and contributions; the multilingual and multicultural Southwest.

CCS 355. The United States-Mexico International Border (3) I

Prerequisites: Upper division standing; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

History, culture, economics, and politics of US/Mexico border region. Theories and policy issues surrounding development of region; local regional problems and major agencies, institutions, organizations addressing these problems.

CCS 375. US/Mexico Border History (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. Recommended: Chicana and Chicano Studies 110.

Historical problems and movements in the US/Mexico border region, in particular those impacting Spanish-speaking populations on both sides of the border. Contemporary border issues from a historical perspective.

CCS 376. 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.

CCS 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.

CCS 396W. Chicano Prose: Creative Writing (3)

Prerequisite: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

A writing workshop. Mutual criticism. Exploration of new form and content in Mexican American prose. Maximum credit six units.

CCS 400. Mexican Images in Film (3)

Prerequisites: Upper division standing and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Comparative study of images presented by Hollywood, Mexican, and Chicano cinemas. Critical analysis and discussion of projected values. Comparison of themes in film and text.

CCS 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.

CCS 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.

CCS 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.

CCS 498. Internship in US-Mexico Border (3)

Nine to twelve hours per week plus four class meetings.

Prerequisites: Upper division standing, Chicana and Chicano Studies 355, and consent of instructor.

Internship in public or private sector institution, agency, or organization engaged in US-Mexico binational relations or border-related issues. Meets requirements for United States-Mexico Border Studies certificate program.

CCS 499. Special Study (1-3)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

CCS 554. United States-Mexico Transborder Populations and Social Change (3)

(Same course as Sociology 554.)

Prerequisite: Sociology 101. Recommended: Chicana and Chicano Studies 355 and/or Sociology 350.

Sociology of the population at the US-Mexico border region. Demographic dynamics and social change in border communities. International migration and transmigration. Transborder families and transnational families. Gender systems and women's reproductive health in border communities.

CCS 595. US/Mexico Border Field Experience (3)

Prerequisites: Six upper division units in Chicana and Chicano studies or graduate standing. Working knowledge of Spanish required.

Field Work in US-Mexico border area. Visits to border institutions in Tijuana and San Diego. Dynamics of postmodernity and globalization. Multidisciplinary and critical study of US-Mexico border through research and experience. Classes meet in US and Mexico.

CCS 596. Topics in 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
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In the College of Professional Studies and Fine Arts

Faculty

Emeritus: Cannon, Dorris, Deutsch, Hewes, Milne, Ross, Somerville
Chair: Roberts
Professors: Balkwell, Roberts
Associate Professor: Ritblatt
Assistant Professor: Hokoda
Lecturer: Booth

Offered by the Department

Master of Science degree in child development.
Major in child development with the B.S. degree in applied arts and sciences.
Minor in child development.
Certificate in family life education.

The Major

The interdisciplinary major in child development draws from many fields of study, including biology, psychology, and sociology, and prepares students for a variety of professional specialties. Graduates with competencies in this major find positions in preschools, child care centers, schools, hospitals, clinics, residential institutions, counseling centers, mental health centers, social services and public welfare agencies, family service agencies, family planning clinics, community programs, business and industry, and government agencies.

Field experience programs offer students supervised work in community agencies, children's programs, the Associated Students' Campus Children's Center, and San Diego City Schools. All children's programs are mainstreamed and a wide range of special needs and at-risk populations are served.

The child development degree also provides a flexible curriculum base for continuation into graduate programs in child development or family relations. Majors may also continue graduate work in related fields such as marriage and family therapy; social work; psychology; law; or sociology. Also available are programs leading to the multiple subject and single subject teaching credentials, the community college teaching credential, and a specialist credential in either special education or early childhood education.

The child development minor is an important adjunct for students in areas such as anthropology, education, psychology, recreation, social work, and sociology.

Impacted Program

The child development major is an impacted program. To be admitted to the child development major, students must meet the following criteria:

- 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);
- Complete a minimum of 60 transferable semester units;
- Have a cumulative GPA of 2.40 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Child Development Major

**With the B.S. Degree in Applied Arts and Sciences
(Major Code: 08231)**

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Child and Family Development 135, 270, 270L (1 unit), 272, 275; Biology 100; Psychology 101; Sociology 101; and Psychology 270 and 271 (or Sociology 201). (25-26 units)

These prerequisite courses may not be taken Cr/NC. The minimum grade in each class is C or higher.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

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, 597L; 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.

+ Indicates course with prerequisites not included in list of courses acceptable for minor

Family Life Education Certificate

The purpose of this certificate program is to prepare students for careers in family life education. The program is designed for individuals working on degrees in child development and health science. It also provides a self-improvement opportunity for people seeking employment, promotion, or upward mobility on the job who are not enrolled in degree programs.

Awarding of the certificate requires completion of an approved pattern of five courses (15 units) with a grade of "C" or better in each of the courses to include Child and Family Development 135, 270+ or 371+ or Psychology 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 chair of the Department of Child and Family Development.

+ Indicates course with prerequisites not included in requirements listed above.

Courses (CFD)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

CFD 135. Principles of Family Development (3) I, II

Intimacy, compatibility, conflict, and communication in relationship formation and adjustment.

CFD 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.

CFD 270L. Principles of Child Development Laboratory (1-3) I, II

Three hours of laboratory for each unit.

Prerequisites: Psychology 101; credit or concurrent registration in Child and Family Development 270. **Proof of completion of prerequisite required:** Copy of transcript.

Multiple methods of observing and recording individual and group behavior of children. Observations required. May be repeated with consent of instructor. Maximum credit three units.

CFD 272. Child, Family, Community (3)

Prerequisites: Child and Family Development 135, 270, 270L (one unit); Sociology 101. **Proof of completion of prerequisites required:** Copy of transcript.

Individual and family needs and the social institutions and agencies attempting to meet these needs. Social issues, service programs, program analyses, and program effectiveness emphasized.

CFD 275. Developmentally Appropriate Practices (3)

Two lectures and two hours of activity.

Prerequisites: Child and Family Development 270, 270L (one unit).

Proof of completion of prerequisites required: Copy of transcript

Design, implementation, and evaluation of developmentally appropriate practices for children and families.

CFD 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

CFD 335. Interaction in Families (3) I, II

Prerequisite: Completion of all lower division preparation for the major courses with a grade of C (2.0) or better. **Proof of completion of prerequisites required:** Copy of transcript.

Family interaction patterns throughout the life cycle in a multicultural society. Emphasis on theories, research findings, and family practices.

CFD 370. Research, Assessment, and Evaluation of Children and Families (3) I, II

Prerequisite: Completion of all lower division preparation for the major courses with a grade of C (2.0) or better. **Proof of completion of prerequisites required:** Copy of transcript.

Methods for measuring child, caregiver, and family behavior. Evaluation of reliability and validity. Includes research design, sampling techniques, data collection strategies, and values/ethics.

CFD 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.

CFD 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.

CFD 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

CFD 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.

CFD 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.

CFD 496. Experimental Topics (1-4)

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

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

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

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

CFD 536. Divorce and Remarriage (3) II

Prerequisites: Child and Family Development 335 and Sociology 101. **Proof of completion of prerequisites required:** Copy of transcript.

Integration of family theories and research findings. Emphasis on adjustment to divorce and remarriage throughout life cycles, across cultures, social classes, and ethnicities.

CFD 537. Child Abuse and Family Violence (3) I, II

Prerequisites: Child and Family Development 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.

CFD 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.

CFD 575. Public Policy and Professional Ethics in Child and Family Development (3)

Prerequisites: Child and Family Development 375; 376A, 376B, or 376C; 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.

CFD 577. Advanced Administration of Child Development Programs (3) II

Prerequisite: Child and Family Development 477. **Proof of completion of prerequisite required:** Copy of transcript.

Problem analysis and development of successful organizational strategies for child development program delivery. Leadership, effective communication, social and ethical issues from a multicultural perspective.

CFD 578. 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.

CFD 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.

CFD 596. Advanced Studies in Child and Family Development (1-6)

Prerequisite: Nine upper division units in child and family development.

Advanced study of selected topics. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of nine units of 596. No more than six units of 596 may be applied to either the bachelor's or master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

CFD 597. Child and Family Development Field Experiences (1) I, II

Prerequisites: 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 major. Concurrent registration in Child and Family Development 597L. **Proof of completion of prerequisites required:** Copy of transcript.

Current issues and career preparation in the field of child and family development.

CFD 597L. Child and Family Development Field Experiences Laboratory (2) Cr/NC I, II

Prerequisites: 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 major. Concurrent registration in Child and Family Development 597. **Proof of completion of prerequisites required:** Copy of transcript.

Supervised work experiences under joint supervision of agency heads and course instructor.

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

Chinese

In the Department of Linguistics and Oriental Languages
In the College of Arts and Letters

OFFICE: Business Administration 327

TELEPHONE: 619-594-5268

FAX: 619-594-4877

<http://www-rohan.sdsu.edu/dept/linguist/index.html>

<http://www-rohan.sdsu.edu/dept/chinese/>

Faculty

Emerita: Woo

Chair: Kaplan

Associate Professor: Zhang

Assistant Professor: Wu

Offered by the Department of Linguistics and Oriental Languages

Major in international business, with emphasis in Chinese.

See International Business.

Minor in Chinese.

Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Chinese to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Chinese 201 or the equivalent level of achievement. The usual sequence of coursework is Chinese 101, 102, and 201. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

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

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.
2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.
3. **Four years** of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the language requirement.

Chinese Minor

The minor in Chinese consists of a minimum of 19 units in Chinese; at least 16 units must be taught in Chinese, of which six units must be in upper division courses. The remaining three units may be selected from additional Chinese language courses or selected from Art 263, Asian Studies 458, 459, Comparative Literature 455, 460 (when appropriate), History 566, 567, either Linguistics 420 or 520, Philosophy 351, Religious Studies 345.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and General Education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (CHIN)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

Native speakers of Mandarin Chinese will not receive credit for taking lower division courses except with advance approval from the department.

All lower division courses in Chinese are taught in Chinese.

No credit will be given for lower division courses taken after successfully completing any upper division Chinese course taken in Chinese.

No credit will be given for Chinese 101, 102, 201, 202, 301, and 302 taken out of sequence or concurrently.

CHIN 101. Elementary Chinese I (5) I

Five lectures and one hour of laboratory.

Rudiments of Mandarin pronunciation; listening, speaking, reading, and writing with emphasis on communicative ability; acquisition of the most useful phrases and vocabulary items, and over 300 characters; familiarity with basic sentence structures of Mandarin; information on Chinese culture. Not open to students who have completed three years of high school Chinese unless the third course was completed five or more years ago. See *Class Schedule* for appropriate section based on your background in Chinese.

CHIN 102. Elementary Chinese II (5) II

Five lectures and one hour of laboratory.

Prerequisite: Chinese 101.

Continuation of Chinese 101, including acquisition of an additional 300 characters. Further development of language competence. Not open to students who have completed four years of high school Chinese unless the fourth course was completed five or more years ago. See *Class Schedule* for appropriate section based on your background in Chinese.

CHIN 201. Intermediate Chinese I (5) I

Five lectures and one hour of laboratory.

Prerequisites: Chinese 102 and completion of the General Education requirement in Foundations II.C., Humanities.

Development of facility to comprehend and produce spoken Chinese. Acquisition of advanced language structures and an additional 400 characters. Emphasis on connected discourse. See *Class Schedule* for appropriate section based on your background in Chinese.

CHIN 202. Intermediate Chinese II (5) II

Five lectures and one hour of laboratory.

Prerequisites: Chinese 201 and completion of the General Education requirement in Foundations II.C., Humanities.

Continuation of Chinese 201. Reading of contemporary work and writing of short passages in Chinese. Acquisition of an additional 400 characters. See *Class Schedule* for appropriate section based on your background in Chinese.

CHIN 296. Experimental Topics (1-4)

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

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

All upper division courses in Chinese are taught in Chinese unless otherwise stated.

No credit will be given for Chinese 301 and 302 taken out of sequence.

CHIN 301. Advanced Chinese I (3)

Prerequisites: Chinese 202 and completion of the General Education requirement in Foundations II.C., Humanities.

Greater facility in oral expression and writing for practical purposes; exposure to various styles of language; newspaper and media Chinese; elements of literary and classical language.

CHIN 302. Advanced Chinese II (3)

Prerequisites: Chinese 301 and completion of the General Education requirement in Foundations II.C., Humanities.

Continuation of Chinese 301. Writing paragraphs and longer expository texts. Reading modern and classical literature.

CHIN 351. Introduction to Classical Chinese (3)

Prerequisite: Chinese 302.

Basic vocabulary and grammatical features of classical Chinese, its contrast with modern Chinese, its special stylistic and rhetorical conventions. Texts from Confucian canon and Tang Dynasty poetry.

CHIN 352. Aspects of Chinese Language (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities. Strongly recommended: A course in foreign language or linguistics.

Relationship with other languages; dialects, their development and relationship to Mandarin; writing system and its evolution; Romanization schemes; structural and socio-cultural aspects, especially as they differ from English; unique problems of learning the language. Taught in English.

CHIN 431. Advanced Conversational Chinese (3)

Prerequisite: Credit or concurrent registration in Chinese 302.

Conversation practice on practical, social, and cultural topics, with aid of spoken language materials such as plays and videotapes; learning conversational strategies and stylistic features.

CHIN 433. Newspaper Chinese (3)

Prerequisite: Credit or concurrent registration in Chinese 302.

Developing reading skills; cultural, historical, and linguistic information for understanding of Newspaper Chinese. Conventions, special structures, and vocabulary; reading strategies such as skimming and scanning; background information on idioms and literary allusions used in newspapers.

CHIN 434. Business Chinese (3)

Prerequisite: Credit or concurrent registration in Chinese 302.

Developing ability to function in Chinese business environment; familiarity with business correspondence, telecommunication, advertising, business terminology and stylistic features, information on intercultural communication, social and cultural background.

CHIN 450. Readings in Chinese Civilization (3)

Prerequisite: Chinese 302.

Readings in Chinese from areas such as philosophy, religion, history, geography, folk tales, and legends. Film and video presentations to enhance a greater understanding and appreciation of Chinese civilization.

CHIN 451. Readings in Modern Chinese Literature (3)

Prerequisite: Chinese 302.

Fiction, prose, poems, and plays written after May Fourth Movement in 1911, which marked beginning of vernacular literature.

CHIN 496. Topics in Chinese Studies (1-4)

Topics in Chinese language, literature, culture, and linguistics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit eight units.

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

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

Civil Engineering

In the College of Engineering

OFFICE: Engineering 424
TELEPHONE: 619-594-6071
E-MAIL: ce@engineering.sdsu.edu

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, Sharabi

Chair: Supernak

The AGC Paul S. Roel Chair in Construction Engineering and Management: Walsh

The William E. Leonhard, Jr. Chair in Civil and Environmental Engineering: Forman

Professors: Banks, Bayasi, Hayhurst, Ponce, Supernak, Westermo
Associate Professor: Walsh

Assistant Professors: Beighley, Forman, Valdes

Adjunct: Penchina, Won

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) Paul S. Roel Chair in Construction Engineering and Management

The AGC-Paul S. Roel Chair in Construction Engineering and Management is funded with an endowment established by generous gifts from members of the Associated General Contractors in San Diego Chapter. Recognizing the need for expert construction professionals, the local construction community has invested considerable resources in this new degree program. In particular, the endowment is funded by a significant gift from Roel Construction, in honor of Paul S. Roel, the son of the company's founder and the man responsible for moving the family business to San Diego in 1959. The first appointee to the Chair, Dr. Kenneth D. Walsh, is an accomplished teacher-scholar, with a research background in improvement of production systems in construction in residential, commercial, and heavy civil settings.

The William E. Leonhard, Jr. Chair in Civil and Environmental Engineering

The William E. Leonhard, Jr. Chair in Civil and Environmental Engineering is funded with an endowment created by generous gifts from William G. Leonhard, Jr. and his parents, William E. and Wyllis M. Leonhard. After Bill Leonhard graduated from San Diego State in 1964, he entered a career in the Air Force, rising to the rank of colonel. In January 1990, he retired from the Air Force, spent the next several years in private industry, and retired again in 1998. The first appointee to the Chair is Assistant Professor, Dr. Selena Forman, an expert in sediment water interactions, contaminated sediment transport, and river restoration design.

Mission of the Department

The mission of the Department of Civil and Environmental Engineering is to provide a high quality undergraduate and graduate education in the civil and environmental engineering areas as well as the advising and other support needed to ensure the students' academic

success and preparation for a productive engineering career. In addition, through research and continuing professional development, the faculty produce, enhance and promote new developments within their areas of expertise for the benefit of society and the furtherance of their profession.

The objective of the program is to give the student a basic knowledge of civil and environmental engineering, as well as the interdisciplinary background and skills to meaningfully participate in and contribute technical advances toward this profession. The program integrates technical aspects with studies in the social sciences and humanities to ensure appropriate sensitivity to socially related problems.

Instruction is given both at the undergraduate level, leading to the bachelor's degree, and at the graduate level, leading to the master's or doctoral degrees. The undergraduate program builds upon concepts of mathematics, physics, chemistry and basic engineering with specialized study in civil and environmental engineering. Engineering design is emphasized, particularly in conjunction with computer utilization and practical civil and environmental engineering problems. Aspects of safety and engineering ethics are woven throughout the program. Breadth and depth of social science and humanities studies is assured by department approved courses. Completion of the undergraduate degree prepares the student for an entry-level professional position in addition to informal or formal graduate studies.

Many students who complete the civil or the environmental undergraduate program choose to continue their formal studies on a full or part-time basis at San Diego State University or at another institution. (See the *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.

NOTE: See the following chart for recommended sequence of courses for the major in civil engineering.

CIVIL ENGINEERING MAJOR

FALL		FIRST YEAR		SPRING	
SEMESTER 1		UNITS		SEMESTER 2	
GE Composition		3		GE Intermediate Composition	
GE Math/Major Prep:		MATH 150		GE Oral Communication	
GE Phys Sci/Lab/Major:		CHEM 200		Major Preparation: MATH 151	
Major Preparation:		CIV E 100		Major Preparation: PHYS 195	
Major Preparation:		CIV E 120		Major Preparation: CIV E 121	
University Seminar		1			
Total Units		17		Total Units	
Cumulative Total		17		Cumulative Total	
FALL		SECOND YEAR		SPRING	
SEMESTER 3		UNITS		SEMESTER 4	
GE Humanities		3		GE Humanities	
Major Preparation:		MATH 252		GE Life Science	
Major Preparation:		PHYS 196		GE Social Science	
Major Preparation:		CIV E 160		Major Preparation: CIV E 218	
Major Preparation:		CIV E 220		Major Preparation: ENGR 280	
Major Preparation:		E M 200		Major Preparation: E M 220	
Total Units		18		Total Units	
Cumulative Total		50		Cumulative Total	
FALL		THIRD YEAR		SPRING	
SEMESTER 5		UNITS		SEMESTER 6	
GE Humanities		3		GE Explorations: Humanities from different dept.	
Major:		CIV E 301		GE Explorations: Social/Beh Science	
Major:		CIV E 302		GE Explorations: Humanities	
Major:		CIV E 395		Major: CIV E 321	
Major:		E M 340		Major: CIV E 481	
Major:		E M 341		Major: ENV E 355	
Major (Sci Elect): EE 204, ME 240 OR ME 352		3			
Total Units		16		Total Units	
Cumulative Total		84		Cumulative Total	
FALL		FOURTH YEAR		SPRING	
SEMESTER 7		UNITS		SEMESTER 8	
Major:		CIV E 401		Major: CIV E 495	
Major:		CIV E 444		Civil Engineering Option Courses	
Major:		CIV E 462		Professional Electives	
Major:		CIV E 463		GE American Institutions	
Civil Engineering Option Courses		6			
GE American Institutions		3			
Total Units		17		Total Units	
Cumulative Total		119		Cumulative Total	

General Education

Students will complete a minimum of 50 units in General Education, to include a minimum of nine upper division units taken after attaining junior class standing. No more than twelve units may be used for General Education credit from any one department or academic unit. No more than 7 units from one department can be used in Sections II and IV combined (Foundations and Explorations), nor more than 10 units from one department in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).

I. Communication and Critical Thinking: 9 units

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

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)

II. Foundations: 29 units

A. Natural Sciences and Quantitative Reasoning (17 units):

1. Physical Sciences (11 units)
Engineering students will take Chemistry 200 which includes a laboratory (5 units).
Physics 195 (3 units)
Physics 196 (3 units)
2. Life Sciences (3 units)
3. Laboratory (satisfied under A.1. above)
4. Mathematics/Quantitative Reasoning
Engineering students will take Mathematics 150, 3 units applicable to General Education. You may **not** use Credit/No Credit grades.

B. Social and Behavioral Sciences (3 units)

C. Humanities (9 units)

Complete three courses in three different areas. One of these courses and the one under IV.A. below must be taken in the same department.

III. American Institutions: Three units of the six units of coursework which meet the American Institutions graduation requirement may be used in General Education, excluding courses numbered 500 and above.

IV. Explorations: Courses in this area must not be taken sooner than the semester in which you achieve upper division standing (60 units passed). Upper division courses in the major department may not be used to satisfy General Education. Total: 9 units; must include one course of cultural diversity.

A. Upper division Humanities (3 units)

Three units must be taken from the same department as one of the Humanities courses selected in Foundations.

B. Upper division Humanities (3 units from a department not selected in A above.)

C. Upper division Social and Behavioral Sciences (3 units)

The Major

Civil engineering is the application of engineering principles to the improvement of the human environment. The civil engineering major prepares students to design and supervise the construction of buildings, dams, roads, harbors, airports, tunnels, and bridges. It also provides training in the planning and construction of the complex systems that supply clean water to cities, remove sewage, control floods, and perform other functions which ensure continued health and safety.

Civil engineers are needed in both the private and public sectors. They are employed in the aerospace industry, usually as structural engineers; design and construction of roads, buildings, bridges, airports, dams and other structures; research and teaching at colleges and universities (with an advanced degree); public utilities and transportation; manufacturing; and offshore drilling, environmental pollution, and energy self-sufficiency. New job opportunities in civil engineering will result from growing demands in housing, industrial buildings, power generating plants, and transportation systems.

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 240, 352.

General Education. Engineering students must follow the specific General Education program outlined on the first page of this section. Other general education requirements and limitations, as well as listings of specific General Education course electives are presented in the General Education section of Graduation Requirements for the Bachelor's Degree.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 48 upper division units to include the following required and elective courses. Required upper division courses in the major: Engineering Mechanics 340, 341; Environmental Engineering 355; Civil Engineering 301, 302, 321, 395, 401, 444, 462, 463, 481, 495.

Civil and Environmental Engineering Option Courses. Course choices must consist of either (1) at least one course from at least four of the first five areas (Water through Geotechnical), or (2) at least two courses from the last area (Construction) and at least one course each from two of the first five areas (Water through Geotechnical).

Water – Civil Engineering 445, 530.

Transportation – Civil Engineering 482, 580.

Environmental – Environmental Engineering 553, 554, 555, 556, 558.

Structural – Civil Engineering 421, 423, 479, 521, 525, 528.

Geotechnical – Civil Engineering 465.

Construction – Civil Engineering 479, 491, 492.

Professional Electives. At least six units selected from Engineering 430 and any 400- or 500-level Civil or Environmental Engineering courses not used to satisfy other requirements. *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)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Note: Proof of completion of prerequisites (copy of transcript) is required for all courses which list prerequisites.

LOWER DIVISION COURSES

CIV E 100. Introduction to Civil Engineering (1) I

Introduction to diverse field of civil and environmental engineering to include structural, geotechnical, water resources, transportation, construction engineering and management, and environmental engineering. Legal, ethical, and international dimensions of the profession.

CIV E 120. Civil and Environmental Engineering Computer Applications I (3) I

Prerequisite: Credit or concurrent registration in Mathematics 150.

Computing tools for civil engineering. Use of spreadsheets, programming, mathematical analysis programs, presentation, and graphics programs.

CIV E 121. Civil and Environmental Engineering Computer Applications II (2) II

Prerequisite: Civil Engineering 120.

Computer aided design for civil engineering applications (AutoCAD).

CIV E 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.

CIV E 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.

CIV E 220. Civil and Environmental Engineering Computer Applications III (3) I

Prerequisite: Civil Engineering 121.

Graphical information systems (GIS), specialized civil engineering software, advanced problem solving.

CIV E 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

CIV E 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.

CIV E 302. Solid Mechanics Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Civil Engineering 301.

Laboratory studies in solid mechanics. Experimental stress analysis. Experimental confirmation of theory.

CIV E 321. Structural Analysis I (3) I, II

Prerequisites: Civil Engineering 301 and 302.

Analysis of beams, frames, trusses, and three-dimensional frameworks. Influence lines; deflections; introduction to statically indeterminate structures and moment distribution.

CIV E 395. Introduction to Civil Engineering Design (2)

One lecture and three hours of laboratory.

Prerequisite: Credit or concurrent registration in Civil Engineering 301.

Civil engineering design process; identification and formulation of design problems; professional responsibilities of designers; documentation and presentation of designs.

CIV E 401. Civil Engineering and Society (1) I

Prerequisite: Senior standing in civil engineering.

Role of civil engineers in society. Historical, political, esthetic, and philosophical perspectives on civil engineering. Contemporary issues involving civil engineering.

CIV E 421. Reinforced Concrete Design (3) I, II

Prerequisite: Civil Engineering 321.

Properties and characteristics of reinforced concrete; design of structural components. Introduction to plastic theory and limit design.

CIV E 423. Timber Design (2) I, II

Prerequisites: Civil Engineering 321.

Physical and mechanical properties of wood. Sawn lumber, glulam, plywood. Design of various types of wood structures. Connection design.

CIV E 444. Applied Hydraulics (3) I, II

Prerequisite: Engineering Mechanics 340.

Open channel and pressure conduit flow, pumps and turbines, hydroelectric power, flood control, and water law.

CIV E 445. Applied Hydrology (3) II

Prerequisite: Civil Engineering 444.

Basic hydrologic principles, hydrologic measurements, small and midsize catchment hydrology, frequency analysis, regional analysis, reservoir, stream channel and catchment routing, hydrologic design.

CIV E 462. Geotechnical Engineering (3) I, II

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.

CIV E 463. Geotechnical Engineering Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Concurrent registration in Civil Engineering 462.

Laboratory procedures of soil testing for geotechnical and environmental engineering problems.

CIV E 465. Foundation Engineering and Earth Retaining Structures (3) 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.

CIV E 479. Construction Materials (3) II

Two lectures and three hours of laboratory.

Prerequisites: Civil Engineering 462 and 481.

Selection, design and control of mixes of portland cement and asphalt concrete. Properties of these and other materials used in construction.

CIV E 481. Transportation Engineering (3) I, II

Prerequisites: Civil Engineering 218.

Physical design of transportation facilities, traffic analysis and control for different modes, planning and demand analysis, introduction to environmental impacts of transportation systems and intelligent transportation systems.

CIV E 482. Highway Engineering (3) I, II

Two lectures and three hours of laboratory.

Prerequisite: Civil Engineering 481.

Highway design, facility sizing, geometric design, drainage, earthwork, pavement design, traffic control devices, safety and environmental considerations.

CIV E 491. Construction Methods (3) I

Prerequisite: Civil Engineering 321.

Components and methods of construction including earthwork; foundations; wood, steel, and concrete construction; roofing and cladding; interior construction.

CIV E 492. Construction Engineering (3) II

Prerequisites: Civil Engineering 491 and Engineering 430.

Project oriented. Cost estimating; alternative cost-saving changes; critical path scheduling.

CIV E 495. Civil and Environmental 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.

CIV E 496. Advanced Civil Engineering Topics (1-3) I, II

Prerequisites: Minimum grade point average of 3.0 and consent of instructor.

Modern developments in civil engineering. See *Class Schedule* for specific content. Maximum credit six units for any combination of Civil Engineering 496, 499 and 596.

CIV E 499. Special Study (1-3) Cr/NC I, II

Prerequisites: Minimum grade point average of 3.0 and consent of instructor.

Individual study in the area of civil engineering. Maximum credit six units for any combination of Civil Engineering 496, 499 and 596.

**UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)****CIV E 521. Structural Analysis II (3) I**

Prerequisite: Civil Engineering 321.

Analysis of statically indeterminate structures by virtual work. Advanced treatment of slope deflection, moment distribution. Arch analysis, secondary stresses in trusses. Advanced treatment of influence lines. Introduction to matrix analysis of structures.

CIV E 525. Design of Steel Structures (3) I, II

Prerequisite: Civil Engineering 321.

Mechanical behavior of structural steel. Design of steel beams, girders, columns and members subjected to combined stresses. Design of various types of connections of steel structures; plate girders, continuous beams and rigid frames.

CIV E 528. Masonry Structures Design (3) I

Prerequisites: Civil Engineering 301 and 321.

Analysis and design of masonry beams, retaining walls, shear walls, bearing walls, and columns. Use of allowable stress and strength design methods. Design project, including structural system analysis and lateral design of masonry buildings.

CIV E 530. Open Channel Hydraulics (3) I, II

Prerequisite: Civil Engineering 444.

Principles of open channel flow; analysis and problems of critical, uniform, gradually-varied, and rapidly-varied flows, design and environmental problems; computer simulations and applications; and culvert hydraulics.

CIV E 580. Traffic Engineering Design (3) II

Prerequisite: Civil Engineering 481.

Sizing and configuration of highway facilities based on capacity analysis. Traffic signal design, impact and mitigation studies, parking, safety design.

CIV E 596. Advanced Civil Engineering Topics (1-3) I, II

Prerequisites: Minimum grade point average of 3.0 and consent of instructor.

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

**GRADUATE COURSES
Refer to *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.

Classics

In the College of Arts and Letters

OFFICE: Adams Humanities 4231

TELEPHONE: 619-594-5186

FAX: 619-594-1004

<http://clasxhum.sdsu.edu>

Faculty

Emeritus: Eisner, Genovese, Hamilton, Warren

Chair: Genovese

Assistant Professor: Smith

Offered by the Department of Classics and Humanities

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

Emphasis in classical humanities.

Emphasis in classical language.

Teaching major in classics (concentration in Latin) for the single subject teaching credential in foreign languages.

Minor in classics.

The Major

Classics is the study of the languages, literatures, and civilizations of ancient Greece and Rome. These are the oldest European and American traditions of the humanities and the liberal arts. Classics literally means works of the first class or rank, and the profound truths and disciplined forms cultivated by classical authors and artists have assured their works lasting relevance.

All Classics majors take two or more years of Greek or Latin. They may choose the language emphasis that allows them to study one or both languages or they may choose the broader emphasis in classical humanities. There is also a Latin-centered curriculum that prepares them for a teaching career. Classics majors have at their disposal the library, art, and relaxation of the Burnett Classics Seminar Room, and they have access to the audiovisual library of the Schaber Humanities Center. In addition to small language classes, close academic advising, and the fellowship of a small department with diverse interests, Classics majors culminate their studies with a senior seminar.

Although the prime purpose of the Classics major is to satisfy a quest for the original intellectual and artistic values of Western civilization, graduates enjoy a range of professional choices in addition to academic careers in Classics and various humanities disciplines. Classics majors are well prepared for law school, and with supplementary coursework in business, economics, or information systems, a Classics graduate can be very competitive in the business world, especially at the executive level. Classics graduates also have an advantage as editors, librarians, journalists, and technical writers. Opportunities are available in public relations, government, and other fields where general knowledge, perspective, and a facility with language serve not only the public good but one's own success.

High School Equivalents

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

Secondary school language courses can be used as follows:

1. The first *two years* of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first *three years* of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. *Four years* of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the language requirement.

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.

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major plus one language course in the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508W or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Classics 320, 330, History 502, 503, Humanities 490, 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)

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major plus one language course in the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508W or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Classics 320 and Humanities 490; History 502 or 503; three to nine units from upper division courses in Classics, Art 568, History 502, 503, Philosophy 411 (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)

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major plus one language course in the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508W or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Classics 303L, 304L, 320, and Humanities 490; nine units in Classics 496L or 599L to include three units in Special Study in Latin Teaching Methods; History 503; six units from Classics 310, 330, 340, Art 568, History 502, or Philosophy 411 (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. At least 16-17 units must be taught in Greek or in Latin and three units selected from Classics 310, 320, 330, 340.

Nonlanguage – 18 units, of which 12 units must be upper division. A minimum of six upper division units must be selected from classics courses, and up to six units may be selected from Art 568, History 502, 503, or Philosophy 411*.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

* Additional prerequisites required.

Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Greek or Latin to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Classics 303G or 303L or the equivalent level of achievement. The usual sequence of course work is either Classics 101G, 202G, and 303G, OR Classics 101L, 202L, and 303L. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

Courses (CLASS)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Classics includes courses in Greek and Latin as well as nonlanguage courses. Greek course numbers have a G suffix; Latin courses have an L suffix.

No credit will be given for Classics 101G, 202G, 303G, 304G taken out of sequence.

No credit will be given for Classics 101L, 202L, 301L, 303L taken out of sequence.

LOWER DIVISION COURSES

CLASS 101G. Elementary Greek I (5) I

Introduction to ancient Greek, emphasizing grammatical foundations of Attic and Koine prose. Not open to students who have completed three years of high school ancient Greek unless the third course was completed five or more years ago. Not open to students with credit in Classics 250G.

CLASS 101L. Elementary Latin I (5) I

Introduction to Latin, emphasizing grammatical foundations of classical prose. Not open to students who have completed three years of high school Latin unless the third course was completed five or more years ago. Not open to students with credit in Classics 250L.

CLASS 120. English from Latin and Greek (3)

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.")

CLASS 140. Our Classical Heritage (3)

Greek and Roman art, literature, and institutions as reflected in the Western tradition.

CLASS 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.

CLASS 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.

CLASS 250G. Accelerated Elementary Greek (8) S (Offered only in Extension)

Intensive one-semester introduction to ancient Greek, emphasizing basic grammar, vocabulary, syntax. Preparation for Classics 303G. Not open to students who have completed three years of high school ancient Greek unless the third course was completed five or more years ago. Not open to students with credit in Classics 101G and 202G.

CLASS 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.

CLASS 296. Experimental Topics (1-4)

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

- C. Experimental Topics in Classics.
- G. Experimental Topics in Greek.
- L. Experimental Topics in Latin.

UPPER DIVISION COURSES
(Intended for Undergraduates)**CLASS 303G. Readings in Greek Prose (3) I**

Prerequisites: Classics 202G or 250G, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors.

Readings selected from Greek history, philosophy, oratory, and New Testament. Authors such as Xenophon, Plato, Lysias, the Evangelists. Emphasis on rapid reading.

CLASS 303L. Readings in Latin Prose (3) I

Prerequisites: Classics 202L or 250L, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors.

Readings selected from classical Latin history, philosophy, oratory, letters. Authors such as Sallust, Cicero, Pliny the Younger.

CLASS 304G. Readings in Greek Poetry (3) II

Prerequisites: Classics 303G, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors.

Readings selected from Greek epic, elegy, tragedy. Authors such as Homer, Sophocles, Euripides.

CLASS 304L. Readings in Latin Poetry (3) II

Prerequisites: Classics 303L, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors.

Readings selected from classical Latin epic, lyric, elegy, comedy. Authors such as Vergil, Catullus, Ovid, Plautus.

CLASS 310. Classical Mythology (3)

Prerequisites: Nine units from General Education courses in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors. Recommended: Rhetoric and Writing Studies 200.

Mythological elements in Greek and Roman art, literature, and religion.

CLASS 320. Classical Literature (3) I

Prerequisites: Nine units from General Education courses in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors. Recommended: Rhetoric and Writing Studies 200.

Reading in translation of Greek and Latin masterpieces. Emphasis on epic and prose genres. Authors such as Homer, Herodotus, Plato, Vergil, Apuleius. Literary and historical criticism.

CLASS 330. Classical Drama (3) II

Prerequisites: Nine units from General Education courses in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors. Recommended: Rhetoric and Writing Studies 200.

Reading in translation of Greek and Roman tragedies and comedies. Playwrights such as Aeschylus, Sophocles, Euripides, Aristophanes, Plautus, Seneca. Literary, dramatic, historical criticism.

CLASS 340. Classical Civilization (3)

Prerequisites: Nine units from General Education courses in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors. Recommended: Rhetoric and Writing Studies 200.

Greek and Roman civilization from Bronze Age to Late Empire. Integration of history, philosophy, literature, the arts, and society.

CLASS 350. Classics and Cinema (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Classics majors.

Ancient Greece and Rome as represented in major cinematic productions. Screenplays compared with Greek and Latin sources in English translation.

CLASS 496. Topics in Classical Studies (1-4)

Topics in classical languages, literatures, cultures, and linguistics. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit nine units. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

C. Topics in Classics.

G. Topics in Greek. 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)**CLASS 599. Special Study (1-3) I, II**

Prerequisites: Consent of major or graduate adviser; to be arranged by department chair and instructor. For 599C: Classics 304L or 304G. For 599G: 304G. For 599L: 304L.

Individual study. Maximum credit nine units in any combination of 599C, 599G, 599L.

C. Special Study in Classics.

G. Special Study in Greek.

L. Special Study in Latin.

Communication

In the College of Professional Studies and Fine Arts

OFFICE: Professional Studies and Fine Arts 361

TELEPHONE: 619-594-5450

FAX: 619-594-6246

E-MAIL: socdesk@mail.sdsu.edu

Faculty

Emeritus: Broom, Brown, Buckalew, Hartung, Martin, Odendahl, Samovar, Sanders

Director: Eadie

The Lionel Van Deerlin Professor of Communication and Public Policy: Eger

Professors: Andersen, J., Andersen, P., Beach, Borden, Dionisopoulos, Dozier, Eadie, Geist-Martin, Hellweg, Lauzen, Lustig, Mueller, Spitzberg, Wulfemeyer

Associate Professor: Davis

Assistant Professors: Renegar, Sha, Spevak, Ward, Zhong

Lecturer: Lockwood

Offered by the School

Master of Arts degree in communication with specializations in:
Communication studies.
Mass communication and media studies.

Major in communication with the B.A. degree in liberal arts and sciences **OR** applied arts and sciences

General communication.

Emphasis in advertising.

Emphasis in public relations.

Emphasis in telecommunications and film. **See** Theatre,

Television, and Film.

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

Minor in advertising.

Minor in communication.

Minor in journalism.

Minor in public relations.

The Lionel Van Deerlin Professor of Communication and Public Policy

More than 40 major communications companies contributed to establish The Lionel Van Deerlin Professor of Communication and Public Policy. The professorship serves as the center for the study of public policy and issues affecting the communications/information field, the area in which Lionel Van Deerlin was vitally concerned during his 18 years in Congress. The current holder of the professorship is John M. Eger.

General Information

The School of Communication, an academic unit within the College of Professional Studies and Fine Arts, emphasizes scholarly, creative, and professional aspects of communication studies. The school engages in teaching, research, and development of integrated, interactive, international, and intercultural communication for the twenty-first century. The mission of the School of Communication is to be a leader in advancing the theory and understanding of human communication and improving the practice of human communication; to study and teach the art, science, and practice of communication; and to provide an educational environment encouraging excellence, leadership, and creativity in communication scholarship and professional excellence.

Impacted Programs

Programs in the School of Communication are impacted. Students must enter the university under the designated major code for selected program. To be admitted to the selected program, refer to the program description for specific impacted criteria.

Communication Major

B.A. Degree in Liberal Arts and Sciences **OR** Applied Arts and Sciences

All candidates for a degree in liberal arts and sciences or a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Selecting the B.A. degree in liberal arts and sciences requires meeting the language requirement. Selecting the B.A. degree in applied arts and sciences requires the mathematics competency requirement. To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Lower division preparation for the major courses may be satisfied by comparable courses in community colleges or other institutions with which the university has articulation agreements.

NOTE: No more than 48 units in School of Communication courses can apply to the B.A. degree in Liberal Arts and Sciences.

OPTION 1:

General Communication Program

With the B.A. Degree in Liberal Arts and Sciences **OR** Applied Arts and Sciences (Major Code: 15061)

Students majoring in general communication learn different ways in which communication has been conceptualized and investigated, as well as ways in which members of the communication discipline have used their knowledge and scholarship to engage a variety of social problems. Students will be given opportunities to study how effective communication enhances well-being, and relationships; promotes civic engagement; and allows for effective participation in a global community. Courses focus on organizing principles and patterns of social life through observation, analysis, and criticism of human interactions, communication behavior, mediated systems, and technological innovations. This major is firmly grounded in the liberal arts and sciences and is intended to prepare students to be effective members of society, as well as valued employees in whatever careers that they may choose to pursue. Graduates have often found positions in occupations such as sales, human resources, training, education, and consulting, or have pursued advanced academic or professional degrees in fields such as law, management, and marketing.

Impacted Program. General communication is an impacted program. To be admitted to the general communication program, students must meet the following criteria:

- 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);*
- Complete the general education oral communication requirement with a grade of C or higher. This course cannot be taken for credit/no credit (Cr/NC);

- c. Complete a minimum of 45 transferable semester units and a maximum of 90 semester units. (A minimum of 60 units are required for all transfer applicants.);
- d. Have a cumulative grade point average of 2.75 or higher.

Preparation for the major. General Education oral communication requirement, and six units selected from Communication 160, 200, 204. (9 units) These courses must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). The General Education oral communication course will not be included in the computation of the required grade point average of 2.75.

Language Requirement (Liberal Arts and Sciences). Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Mathematics Competency Requirement (Applied Arts and Sciences). Competency in mathematics must be satisfied by three semesters of college mathematics or a statistical sequence such as Statistics 250, 350A, 350B (highly recommended); or Political Science 201*, 515, 516; or Sociology 201*, 406*, 407*.

* Additional prerequisites required.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Communication 310W or Rhetoric and Writing Studies 305W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include six units from the following Communication Essentials courses: Communication 300, 305, or 350; 12 units from the following Conceptualizing Communication courses: Communication 360, 371, 406, 415, 450, 491, 555, 589, 592; six units from the following Investigating Communication courses: Communication 355, 410, 420, 493, 530; and 12 units selected from two of the following areas of Engaged Communication: Communicating to Enhance Well-Being and Relationships (Communication 421, 445, 452, 503, 583); Communicating to Promote Civic Engagement (Communication 408, 471, 508, 545, 580, 584); Communicating in a Global Community (Communication 307, 407, 409, 479, 483, 571). **Students selecting the general communication program are required to complete a minor.**

OPTION 2:

Professional Communication Emphases

The professional communication emphases provide in-depth study of mediated and non-mediated human communication in professional contexts. To accommodate a broad range of student interests and professional aspirations, the major includes two emphases that are impacted programs. The professional communication major B.A. degree in liberal arts and sciences requires the foreign language competency requirement. A minor or concentration of upper division courses in an approved department outside of the School of Communication is required in this major.

Students in the professional communication emphases study theory, principles, skills, and experience needed to work in advertising, public relations, media management, and 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 fund-raising and membership development for not-for-profit organizations.

Emphasis in Advertising

With the B.A. Degree in Liberal Arts and Sciences (Major Code: 06041)

To complete the advertising emphasis, students must fulfill the degree requirements for the major described in the catalog in effect at

the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Impacted Program. The advertising emphasis is designated as an impacted program. To be admitted to the advertising emphasis, students must meet the following criteria:

- a. Complete with a minimum grade point average of 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 by third attempt;
- c. Complete a minimum of 45 transferable semester units and a maximum of 90 semester units. (A minimum of 60 units are required for all transfer applicants.);
- d. Have a cumulative grade point average of 2.75 or higher.

Preparation for the Major. Communication 200; Journalism 220; Economics 101; Political Science 101, 102. Some of these courses also may be used to fulfill lower division general education requirements. (15 units)

These prerequisite courses may not be taken Cr/NC and must be completed with a minimum GPA of 2.85 and a grade of C or higher in each class.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Communication 310W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Communication 300, 310W, 460, 461, 560, 565; three units from Journalism 300, Communication 440, 480; and nine units of upper division coursework in Communication or Journalism.

Allied Discipline. Students selecting the advertising emphasis are required to complete a minor in one of the following departments or nine units of approved upper division courses in one of the following allied disciplines: economics, management, marketing, political science, psychology, sociology, or other area approved by program coordinator. See department for list of approved courses.

Emphasis in Public Relations

With the B.A. Degree in Liberal Arts and Sciences (Major Code: 05992)

To complete the public relations emphasis, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Impacted Program. The public relations emphasis is designated as an impacted program. To be admitted to the public relations emphasis, students must meet the following criteria:

- a. Complete with a minimum grade point average of 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 by third attempt;
- c. Complete a minimum of 45 transferable semester units and a maximum of 90 semester units. (A minimum of 60 units are required for all transfer applicants.);
- d. Have a cumulative grade point average of 2.75 or higher.

Preparation for the Major. Communication 200; Journalism 220; Economics 101; Political Science 101, 102. Some of these courses also may be used to fulfill lower division general education requirements. (15 units)

These prerequisite courses may not be taken Cr/NC and must be completed with a minimum GPA of 2.85 and a grade of C or higher in each class.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Communication 310W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Communication 300, 310W, 480, 481, 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 approved upper division courses in one of the following allied disciplines: economics, management, marketing, political science, psychology, sociology, or other area approved by program coordinator. See department for list of approved courses.

Journalism Major

B.A. Degree in Liberal Arts and Sciences

(Major Code: 06021)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

Journalism education emphasizes the training of writers, reporters, and editors for the mass media. It also seeks to prepare and guide students interested in pursuing careers in a wide range of informational and interpretive multi-media environments. The courses offered in the journalism major are designed to give students a working knowledge of the skills, concepts, values, and ethics needed to succeed as competent professional communicators. They focus on the basic elements of factual and analytical writing, editing, communication law and theory, history, and responsibility in the mass media.

Career opportunities for journalism graduates are diverse, including book editing and publishing, freelance writing, industrial journalism, magazines, communication research, news agencies, newspapers, radio, television, teaching, and 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. To be admitted to the journalism major, students must meet the following criteria:

- 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);*
- Pass the Grammar, Spelling, and Punctuation (GSP) test by third attempt;
- Complete a minimum of 45 transferable semester units and a maximum of 90 semester units. (A minimum of 60 units are required for all transfer applicants.);
- Have a cumulative grade point average of 2.75 or higher.

Preparation for the Major. Communication 200; Journalism 220; Economics 101; Political Science 101, 102. Some of these courses also may be used to fulfill lower division general education requirements. (15 units)

These prerequisite courses may not be taken Cr/NC and must be completed with a minimum GPA of 2.85 and a grade of C or higher in each class.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Communication 310W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Communication 300, 310W, 502; Journalism 300, 315, 420, 470; plus six units of upper division Journalism electives and three units from 300-, 400-, 500-level Communication courses. **A minor is required with this major.**

Advertising Minor

(Minor Code: 06041)

The minor in advertising consists of 21 units to include Communication 200, 310W, 460, 461, 560, 565 and Journalism 220. Admission to the advertising minor requires completion of at least 45 units with a minimum grade point average of 3.0 overall; completion of Communication 200 and Journalism 220 with grades of C (2.0) or better and a grade point average of 2.75 in these two courses; and a passing score on the Grammar, Spelling, and Punctuation (GSP) test by third attempt.

Courses in the minor may not be counted toward the major but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Communication Minor

(Minor Code: 06011)

The minor in general communication studies consists of a minimum of 21 units to include six units selected from Communication 160, 200, 204; Communication 300; and 12 upper division units selected from Communication 305, 355, 360, 371, 406, 407, 415, 445, 450, 452, 471, 479, 483, 491, 503, 530, 545, 555, 571, 580, 583, 584, 589, 592. Admission to the communication studies minor requires completion of at least 45 units with a minimum grade point average of 2.75 overall; completion of the General Education Oral Communication requirement with a grade of C (2.0) or better; and six units selected from Communication 160, 200, 204 with grades of C (2.0) or better. The General Education oral communication course will not be included in the computation of the required grade point average of 2.75.

Courses in the minor may not be counted toward the major but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Journalism Minor

(Minor Code: 06021)

The minor in journalism consists of 21 units to include Communication 200, 310W, 502; Journalism 220, 300, 315, 420. Admission to the journalism minor requires completion of at least 45 units with a minimum grade point average of 2.75 overall; completion of Communication 200 and Journalism 220 with grades of C (2.0) or better and a grade point average of 2.75 in these two courses; and a passing score on the Grammar, Spelling, and Punctuation (GSP) test by third attempt.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

Public Relations Minor

(Minor Code: 05992)

The minor in public relations consists of 21 units to include Communication 200, 310W, 480, 481, 489, 585* and Journalism 220. Admission to the public relations minor requires completion of at least 45 units with a minimum grade point average of 3.0 overall; completion of Communication 200 and Journalism 220 with grades of C (2.0) or better and a grade point average of 2.75 in these courses; and a passing score on the Grammar, Spelling, and Punctuation (GSP) test by third attempt.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed at San Diego State University.

*Communication 581 prerequisite waived.

Courses

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES IN COMMUNICATION (COMM)

COMM 90. Improving Speaking Confidence (1) Cr/NC I, II

Two hours of activity.

Prerequisite: Must be taken prior to or concurrent with Communication 103.

Anxiety reduction and skill enhancement for students experiencing anxiety in oral communication situations. Not applicable to a bachelor's degree or general education.

COMM 103. Oral Communication (3) I, II, S (CAN SPCH 4)

One lecture and two hours of recitation.

Training in fundamental processes of oral expression; method of obtaining and organizing material; outlining; principles of attention and delivery; practice in construction and delivery of various forms of speeches. Not open to students with credit in Africana Studies 140 or Chicana and Chicano Studies 111A.

COMM 160. Argumentation (3) I, II (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.

COMM 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.

COMM 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.

COMM 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES IN COMMUNICATION (Intended for Undergraduates)

COMM 300. Conceptualizing Communication (3)

Prerequisite: Completion of 45 semester units.

Communication theory, concepts, principles, and practices. Communication as art and process on micro and macro levels, integrates understanding of sources, messages, transmission, and feedback in creating meaning and culture.

COMM 301. Management of School of Communication Activities (1) Cr/NC I, II

Two hours of activity.

Prerequisite: Communication 103.

Planning, preparation, and supervision of speech tournaments and other interscholastic activities. Maximum credit two units.

COMM 302. Contemporary Forensics Problems (2) 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.

COMM 305. Communication and Engagement (3)

Prerequisite: Completion of 45 semester units.

Communication as an academic and professional discipline, its associations and journals, history and traditions, relationships to other disciplines, research methodologies, and careers for graduates.

COMM 307. Communication in Professional Settings (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication.

Communication principles in professional contexts including interviewing and technical and nontechnical oral presentations. Skill in meeting management.

COMM 309A-309B. Workshop (1-3, 1-3) Cr/NC

Prerequisite: 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.

COMM 310W. Gathering and Reporting Information (3)

Two lectures and two hours of activity.

Prerequisite: Journalism 220 with grade of C (2.0) or better and a passing score on the Grammar, Spelling, and Punctuation (GSP) test. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript. 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.

COMM 350. Investigating Communication (3)

Prerequisite: Completion of 45 semester units.

Study of human communication, from methodological and epistemological perspectives.

COMM 355. Foundations of Critical and Cultural Study (3)

Prerequisites: Six units selected from Communication 300, 305, or 350; admission to a major or minor in the School of Communication.

Central concepts, examples, theories, and experiences of critical studies of communication in culture through cultural, rhetorical, and media literature and cases.

COMM 360. Argumentation Theory (3)

Prerequisites: Communication 160; six units selected from Communication 300, 305, or 350; admission to a major or minor in the School of Communication.

Approaches to argument and the patterns and problems in argument. Consideration of implications for society. Written and oral reports.

COMM 361. Intercollegiate Forensics (1) Cr/NC I, II

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.

COMM 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.

COMM 375. Infrastructure of the Information Age (3) I

Prerequisite: Communication 200.

Technologies and institutions critical to those responsible for communication and information in an information society. Practical experience with on-line computer activities.

COMM 406. Organizational Communication (3)

Prerequisites: Six units selected from Communication 300, 305, or 350; admission to a major or minor in the School of Communication.

The organization as a communication system; role of the organization in persuasive campaigns; communication strategies and problems within the organizational structure.

COMM 407. Communicative Perspectives on Interviewing (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication.

Application of communicative theory to interviewing situations. Emphasis on perception, source, message, and receiver variables, defensive communication, feedback. Phrasing of questions, ways to enhance respondent participation, and formulation of behavioral objectives. Classroom simulation, supplemented by out-of-class interviews.

COMM 408. Mass Communication and Society (3)

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Social factors underlying nature, functions of mass media. Theories, models, research in media as culture carriers, opinion shapers, other societal interrelationships.

COMM 409. Women in Mass Communication (3)

Prerequisite: Upper division standing.

Role of women in mass communication including messages about women and employment status of women.

COMM 410. Theorizing and Modeling Communication (3)

Prerequisites: Six units selected from Communication 300, 305, or 350; admission to a major or minor in the School of Communication.

Survey, analysis, comparison, and development of models and theories of communication.

COMM 415. Nonverbal Communication (3)

Prerequisites: Six units selected from Communication 300, 305, or 350; admission to a major or minor in the School of Communication.

Theory and research on nonverbal aspects of communication, with emphasis on codes and functions.

COMM 420. Survey and Experimental Methods in Communication (3)

Prerequisites: Six units selected from Communication 300, 305, or 350; admission to a major or minor in the School of Communication.

Quantitative research in communication. Construction and analysis of surveys and experiments.

COMM 421. Health Communication (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication.

Analysis of how people understand, share ideas about, and adjust to health and illness. Personal, interactional, cultural, and political complexities of health beliefs, practices, policies.

COMM 440. Principles of Media Management (3)

Prerequisite: Upper division standing.

Revenue generation, marketing, production programming, social responsibilities, and current developments in mass media. Planning, organizing, actuating, and controlling in electronic media organizations.

COMM 445. Relational Communication (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication.

Theory and application of effective relational communication principles in both intimate and nonintimate contexts. Theoretical and empirical evidence on communication strategies and behaviors in relationship initiation, development, and termination. Relationship of communication behaviors to relational goals.

COMM 450. Rhetorical Theory (3)

Prerequisites: Six units selected from Communication 300, 305, or 350; admission to a major or minor in the School of Communication.

Development of rhetorical theory as a mechanism for generating and understanding public discourse. Theories from ancient Greece to the present.

COMM 452. Interaction and Gender (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication.

Contemporary research and theory on communication and gender. Examination of gender as ongoing interactional achievement. Gender displays and myths across diverse relationships, institutions, media, and society.

COMM 460. Principles of Advertising (3) I, II

Prerequisite: Upper division standing.

Concepts, history, theory, social responsibility, management, and regulation of advertising. Survey of advertising practices, including planning, consumer and market research, creative, and media.

COMM 461. Advertising Creative Development (3) I

One lecture and four hours of activity.

Prerequisites: Communication 310W and 460 with grades of C (2.0) or better. **Proof of completion of prerequisites required:** Copy of transcript. Limited to Advertising majors and minors, Major Code: 06041.

Advertising creative philosophy, strategy, and tactics; art, copy, and creation of advertisements for broadcast, print, and interactive electronic media. Application of computers to creative development.

COMM 471. Communication Among U.S. Cultures (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication.

Effects of code systems, sociocultural forces, geographic influences, cultural patterns, ethnolinguistic identities, and acculturation experiences on interethnic and interracial relationships in the United States.

COMM 479. Organizational Communication Across Cultures (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication.

Cultural and ethnic differences in management styles, communication patterns, intercultural negotiations, leadership techniques, conflict management, and work-related values in organizations.

COMM 480. Principles of Public Relations (3) I, II

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.

COMM 481. Public Relations Media and Methods (3) I, II

One lecture and four hours of activity.

Prerequisites: Communication 310W and 480 with grades of C (2.0) or better. **Proof of completion of prerequisites required:** Copy of transcript. Limited to Public Relations majors and minors, Major Code: 05992.

Practical applications of public relations techniques with emphasis on writing and media usage. News releases and media relations, print and electronic communications production, multi-media techniques, speeches, other audio-visual presentations, and special events. Field and laboratory practice.

COMM 483. Communication in Virtual Reality (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication.

Interpersonal, romantic, commercial, organizational, and entertainment implications of virtual environments.

COMM 489. Research Methods in Mass Communication (3) II

Prerequisite: Credit or concurrent registration in Communication 480.

Research methods for decision making in professional mass communication practices. Research settings, methods of observation, measurement, data analysis, interpretation, research reports, and application of research findings.

**COMM 490A-490B. Internship (1-3, 1-3)
(490A = Cr/NC; 490B = letter grade)**

Prerequisites: See *Class Schedule* for prerequisites specific to your area of study. Internship contract must be completed prior to registration.

Students work at approved agencies off-campus under the combined supervision of agency personnel and instructors. Maximum credit three units for Communication 490A-490B.

COMM 491. Group Interaction (3)

Prerequisites: Six units selected from Communication 300, 305, or 350; admission to a major or minor in the School of Communication.

Research, theory, observation of group emergence, development, relationships, interaction, and decision making across diverse settings.

COMM 493. Ethnography and Communication (3)

Prerequisites: Six units selected from Communication 300, 305, or 350; admission to a major or minor in the School of Communication.

Naturally occurring interactions drawn from a variety of communication settings. Primary methods of gathering data include: participant observation, interviewing, document and artifact analysis, and other forms of communication.

COMM 496. Experimental Topics (1-4)

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

COMM 499. Special Study (1-3)

Prerequisites: See *Class Schedule* footnotes for prerequisites specific to your area of study. Special study contract required prior to enrollment.

Approved individual study, project or research under supervision of faculty member. Maximum credit three units.

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

COMM 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.

COMM 502. Law of Mass Communication (3)

Prerequisites: Communication 200 or Political Science 102, and upper division standing.

Libel, invasion of privacy, censorship, contempt of court, pornography. Constitutional guarantees affecting print and broadcast media. Government restrictions.

COMM 503. Instructional Communication (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication. **Proof of completion of prerequisites required:** Copy of transcript.

Communication messages and strategies as they apply to instructional contexts. Communication within traditional instructional contexts and focus on training programs, adult workshops, and other less traditional information dissemination situations.

COMM 505. Government and Telecommunications (3) II

Prerequisite: Twelve upper division units in communication.

Responsibilities of telecommunication organizations as prescribed by law, government policies and regulations, and significant court decisions.

COMM 506. Advertising and Society (3)

Prerequisites: Six upper division units in School of Communication courses.

Theoretical and philosophical analysis of advertising in modern society.

COMM 508. Media Literacy (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication.

Role played by video texts in shaping culture including information distribution, entertainment, and socio-cultural influence exercised by television. Emphasis on audience/medium relationship and to developing critical skills.

COMM 530. Conversational Interaction (3)

Prerequisites: Six units selected from Communication 300, 305, or 350; admission to a major or minor in the School of Communication.

Sequential organization of naturally occurring conversational practices. Reliance on recordings and transcriptions for detailed examinations of interactants' methods for achieving social actions and organizing interactional occasions.

COMM 540. Media Management Research (3)

Two lectures and two hours of activity.

Prerequisites: Communication 310W and 440 with grades of C (2.0) or better. **Proof of completion of prerequisites required:** Copy of transcript. 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.

COMM 545. Communication and Rhetorical Movements (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication.

Historical perspective of role of communication in social change in rhetorical movements and social change.

COMM 555. Conflict Management Communication (3)

Prerequisites: Six units selected from Communication 300, 305, or 350; admission to a major or minor in the School of Communication.

Approaches to conflict communication in international, societal, group, institutional, and interpersonal contexts. (Formerly numbered Communication 455.)

COMM 560. Advertising Research (3) I

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.

Systematic application of quantitative and qualitative research to planning, design, and management of advertising campaigns. Cases, practices, and problems in application of research to consumer, market analysis, positioning, creative selection, media planning, and campaign evaluation.

COMM 565. Advertising Campaigns (3) II

Prerequisites: Communication 461 and 560.

Planning and creation of advertising campaigns including situation analysis and strategy, advertising and marketing objectives, consumer analysis and target audience selection, creative development, media strategy and tactics, sales promotion, and campaign evaluation.

COMM 571. Intercultural Communication Theory (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication.

Theories of cross-cultural and intercultural communication, including ethnic identity, communication competence, and cultural values.

COMM 574. International Advertising (3)

Prerequisites: Six upper division units in School of Communication courses.

Comparative cultural, economic, legal, political, and social conditions relevant to international advertising. Not open to students with credit in Communication 474.

COMM 575. Technological Trends in Telecommunication (3)

Prerequisite: 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 on-line computer activities.

COMM 580. Communication and Politics (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication. **Proof of completion of prerequisites required:** Copy of transcript.

Contemporary political communication events and processes, with a focus on speeches, debates, and campaigns.

COMM 581. Public Relations Research (3)

Two lectures and two hours of activity.

Prerequisites: Communication 310W and 480 with grades of C (2.0) or better 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.

COMM 583. Medical Interaction (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication.

Theoretical and applied approaches to health communication including interactional patterns among doctors, nurses, patients, family members, therapists, counselors, and clients.

COMM 584. Legal Interaction (3)

Prerequisites: Eighteen units of upper division coursework in the School of Communication.

Interactional patterns among judges, lawyers, witnesses, juries, and related legal personnel. Implications for understanding constraints on exchange within institutional interaction and social justice as a practical accomplishment.

COMM 585. Professional Practices in Public Relations (3) II

Prerequisites: Credit or concurrent registration in Communication 481 and 581.

Advanced cases in public relations management. Theory and practice of issues management, integration of the public relations function in strategic management in a variety of corporate, governmental, nonprofit, social, and cultural organizations.

COMM 589. Ethical Issues in Communication (3)

Prerequisites: Six units selected from Communication 300, 305, or 350; admission to a major or minor in the School of Communication.

Proof of completion of prerequisites required: Copy of transcript.

Classical and modern ethical concepts and issues in communication.

COMM 591. International Telecommunications (3) I

Prerequisite: 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.

COMM 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.

COMM 596. Selected Topics (1-4)

Prerequisite: Senior standing or above.

Specialized study in selected topics. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

LOWER DIVISION COURSE IN JOURNALISM (JOUR)

JOUR 220. Writing for the Mass Media (3) (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.

JOUR 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.

JOUR 315. News Writing and Editing (3) I, II

One lecture and four hours of activity.

Prerequisites: Communication 200 and Journalism 220 with minimum grades of C (2.0) in each course; upper division standing; 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.

JOUR 420. Public Affairs News Reporting (3) I

One lecture and four hours of activity.

Prerequisites: Journalism 300, 315, and Communication 310W, with minimum grades of C (2.0) in each course; upper division standing; 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.

JOUR 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.

JOUR 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.

JOUR 470. Radio-Television News Writing and Editing (3) I, II

One lecture and four hours of activity.

Prerequisites: Journalism 300, 315, and Communication 310W, with minimum grades of C (2.0) in each course; upper division standing; 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.

JOUR 490. Internship in Journalism (1-3) Cr/NC

Prerequisites: Upper division standing; consent of instructor; and Journalism 420.

Supervised work at news media organizations under the combined direction of practitioners and professors. Maximum credit three units.

JOUR 496. Experimental Topics (1-3)

Prerequisites: Upper division standing and consent of instructor.

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

JOUR 499. Special Study (1-3)

Prerequisites: Upper division standing and consent of instructor.

Individual study or project, normally in a research area selected by the student. Maximum credit three units.

UPPER DIVISION COURSES IN JOURNALISM

(Also Acceptable for Advanced Degrees)

JOUR 529. Investigative Reporting (3)

One lecture and four hours of activity.

Prerequisites: Journalism 420 with minimum grade of C (2.0); upper division standing; 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.

JOUR 530. Management of News Organizations (3)

Prerequisites: Senior standing and twelve upper division units in journalism.

Role of manager in journalism and journalism-related organizations. Interaction of news, entertainment, advertising, circulation, production, and promotion functions as related to economic demands.

JOUR 550. News Production (3)

One lecture and four hours of activity.

Prerequisites: Journalism 420 with minimum grade of C (2.0); 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*.

Communicative Disorders – Refer to "Speech, Language, and Hearing Sciences" in this section of the catalog.

Community Health Education

In the College of Health and Human Services

OFFICE: Hardy Tower 119

TELEPHONE: 619-594-6317

FAX: 619-594-6112

<http://www-rohan.sdsu.edu/dept/gsph/>

Faculty

Emeritus: Barnes, Boskin, Burgess, Kessler, Kitzinger, McTaggart, Noto, Sorochan, Senn

Professor: Chang

Lecturer: 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. To be admitted to the emphasis in community health education, students must meet the following criteria:

- Complete with a grade of B or higher: Community Health Education 290 and 292. These courses cannot be taken for credit/no credit (Cr/NC);
- Submit a written statement outlining career goals and personal motivation for entering the health field;
- Have a cumulative GPA of 2.50 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Standards for Admission

Admission to the Major

Declaration of the Health Science major is only accepted from November 1 to November 30 each year for admission the following fall semester. No applications are accepted for spring semester.

There are additional requirements for advancement to the major.

- A grade of "B" or better in Community Health Education 290 and Community Health Education 292.
- Overall GPA of 2.50 or better in all classes.
- 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. Majors 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
(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 100, 100L, 210*, 212; Chemistry 100; Communication 103; Nutrition 107; Psychology 101, 270, 271; Sociology 101. (41 units)

Community Health Education 290 and 292 may not be taken Cr/NC. The minimum grade in each class is B or higher.

Graduation Writing Assessment Requirement. Passing Rhetoric and Writing Studies 305W or 503W, or Linguistics 305W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

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).

* Chemistry 130 waived as prerequisite.

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.

* Additional prerequisites required.

Courses (C H E)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

C H E 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.

C H E 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.

C H E 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.

C H E 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

C H E 331. Crisis Management (3) II

Physical and psychological crisis situations, various procedures and techniques in immediate management and follow-up referrals.

C H E 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.

C H E 350. Environmental Health Education (3)

Environmental hazards of living and working in this modern technological world, including air, noise, land, food, and water pollution.

C H E 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.

C H E 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.

C H E 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.

C H E 402. Communications in Health Education (3) I, II

Prerequisites: Community Health Education 290, 292, Communication 103, and completion of Graduation Writing Assessment 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.

C H E 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.

C H E 470. Communicable and Noncommunicable Diseases (3) I, II

Causes, prevention and control of communicable, degenerative and chronic health disorders.

C H E 475. Human Sexuality (3)

Examination of the development of sexual values, attitudes, and behavior from infancy to old age.

C H E 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.

C H E 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.

C H E 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.

C H E 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)

C H E 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.

C H E 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.

C H E 574. Habit-Forming Substances (3) I

Tobacco, alcohol, and other drugs; their use, misuse and abuse.

C H E 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

TELEPHONE: 619-594-5443

FAX: 619-594-4998

E-MAIL: EandCL@mail.sdsu.edu

<http://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 language arts.

Minor in comparative literature.

The Major

Comparative literature is the study of literature from around the world, transcending the restrictions of national and linguistic boundaries. Traditionally, comparative study has been based on literary movements, periods and lines of influence, as well as on genres, themes, myths, and legends. In recent years comparative literature has come to include the comparison of literature with other areas of human experience.

Comparative literature offers students the opportunity to study a broad range of literary subjects from various cultures throughout the world. Courses are offered in European literature from ancient to contemporary times; in the literature of Asia, Africa, and Latin America; in folk literature, legend, fantasy, and science fiction; in literary theory; and in special topics such as travel literature, literature and existentialism, and Japanese literature and film. All reading is done in English translation (majors choosing Plan II, however, are also required to take courses in foreign language literature).

Because the field covers so wide a range, the comparative literature student does not acquire a comprehensive knowledge of any basic list of "great works." Such a list, for all of world literature, would be far too long. Instead, students learn various approaches to literature, along with specialized knowledge of areas which particularly interest them.

Comparative literature is an excellent major for anyone desiring a broadening and enriching liberal arts education. Its application to foreign cultures is particularly useful for careers in foreign service and international trade. Translating, editing and publishing, journalism, broadcasting, and film are other possibilities, as well as advertising and public relations, politics, writing, library work, and criticism. Comparative literature is also, like English, an excellent foundation for careers in the professions, especially law.

The comparative literature major may also be used as preparation for the single subject (high school) teaching credential in English language arts. Graduate study in comparative literature may lead to teaching at more advanced levels. The Plan II major has been specifically designed for students who plan to do graduate work in this area.

Advising

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

Comparative Literature Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15031)

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

A minor is not required with this major.

Preparation for the Major. Comparative Literature 210, 270A, 270B. (9 units)

Language Requirement. Plan I: Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Plan II: See below.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508W, 581W, 584W or Rhetoric and Writing Studies 500W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. Plan I: General literature. For students who do not intend to enter a graduate program in comparative literature.

Required: A minimum of 33 upper division units to include 18 units in one of the three areas (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 British or American) read in the original language. It is strongly recommended that even those students choosing English or American as their second literature attain competency in a second foreign language.

A. European Literature. Eighteen units selected from the following:

1. Comparative Literature 512, 513, 514.
2. Up to six units in other, variable-content comparative literature courses with appropriate content approved by the departmental adviser.
3. Up to six units from Art 371, 557, 558, 559, 573A, 573B, 575; Classics 310, 320, 330; History 407, 408, 440, 504, 505, 506, 507, 510, 512A, 512B, 528; Humanities 401, 402, 403, 404; Music 351A, 351B; Philosophy 412, 413, 414, 506, 508; Political Science 301A, 301B, 302; and Religious Studies 318.

B. Asian, African, and Latin American Literature. Eighteen units selected from the following:

1. Comparative Literature 440, 445, 460, 530.
2. Up to six units in other, variable-content comparative literature courses with appropriate content approved by the departmental adviser.

3. Up to six units from Anthropology 442; Asian Studies 458, 459, 596 (with appropriate content approved by the departmental adviser); History 415, 416, 420, 421, 473, 474, 475, 476, 558; Humanities 460; and Religious Studies 340, 401, 403.

C. Comparative Literary Theory (Theory of literature, genre study, literature in relation to other arts and disciplines).

Eighteen units selected from the following:

1. Comparative Literature 561, 562, 563, 580, 594, 595.
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 English 493, 570, 571, 573; Music 592; Philosophy 334, 541, 542; Theatre 460A, 460B; and Women's Studies 352, 553.

Comparative Literature Major

In preparation for the Single Subject Teaching Credential in English Language Arts

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

(Major Code: 15031)

The comparative literature major in preparation for the single subject teaching credential in English language arts has been submitted to the California Commission on Teacher Credentialing for approval.

Contact the department for additional information.

Requirements listed here are for the fulfillment of the comparative literature major in preparation for the single subject teaching credential in English language arts. All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education. Completion of this major also fulfills 21 units of the General Education program. A minor is not required with this major.

Preparation for the Major. (33 units) 18 units fulfills General Education.

1. Rhetoric and Writing Studies 100 and 200 (General Education I. 1 and 2)
2. Communication 103 (General Education I. 3)
3. Comparative Literature 270A and 270B (6 units–3 units General Education II. C.1)
4. Communication 200
5. Humanities 140 or Theatre 120 (General Education II.C.2)
6. Linguistics 101 (3 units General Education II.B) (Linguistics 420 may be substituted)
7. English 250A and 250B or 260A and 260B (6 units)
8. English 280 or 281

Early Field Experience Requirement. Certification of early field experience required.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. English 308W or Rhetoric and Writing Studies 500W with a grade of C (2.0) or better (see #9 below). See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. (45 units) Fulfills three units General Education. Courses within major cannot be double-counted.

9. English 308W or Rhetoric and Writing Studies 500W.
10. English 502.
11. English 533.

12. For those who took English 250A-250B (American literature survey) select six units from English 536 or 542; and English 543 or 544. (6 units)

For those who took English 260A-260B (British literature survey) select six units from English 521, 522, 523, 524, 525. (6 units)

13. Comparative Literature 562 or Theatre 310.
14. Comparative Literature 561, 562, or 563 (no duplication with #12).
15. Four courses selected from Comparative Literature major, Plan II, Options A, B, or C (12 units).
16. Linguistics 430 or 530.
17. Linguistics 452 or 550.
18. Rhetoric and Writing Studies 509.
19. Diversity literature course: Three units selected from Africana Studies 365A, 365B, 460, 463, 464, American Indian Studies 430, Chicana and Chicano Studies 335, Theatre 465, Women's Studies 352 (General Education IV.C) (also acceptable but non-General Education: Comparative Literature 440, 445, 460, 470).

Consult with English honors program adviser for honors program variation.

Comparative Literature Minor

The minor in comparative literature consists of a minimum of 15 units in comparative literature, 12 units of which must be in upper division courses. The 12 units of upper division work must be selected, with adviser's approval, from within one of the following interest areas:

European Literature: Comparative Literature 512, 513, 514.

Asian, African, and Latin American Literature: Comparative Literature 440, 445, 460, 530.

Comparative Literary Theory (Theory of literature, genre study, literature in relation to other arts and disciplines): Comparative Literature 561, 562, 563, 580, 594, 595.

In addition the following variable content courses may be used in any of the above categories when they are appropriate: Comparative Literature 490, 571, 577, 596.

The comparative literature minor is not available to students majoring in English.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (C LT)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

C LT 210. Introduction to Comparative Literature (3)

Introductory study of comparative literature, its current status, its historical development, range of comparative approaches. Generally includes guest presentations by various members of the comparative literature faculty.

C LT 270A-270B. World Literature (3-3) I, II

Comparative study of selected major works from various continents and cultures, with emphasis on way literature deals with enduring human problems and values. Semester I: prior to 1500; Semester II: since 1500. Comparative Literature 270A is not a prerequisite to 270B, and either may be taken separately.

C LT 296. Topics in Comparative Literature (3)

Introduction to subject matter of comparative studies in literature. Focus on a specific movement, theme, figure, genre, etc. May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

UPPER DIVISION COURSES (Intended for Undergraduates)

C LT 405. The Bible as Literature (3) I, II

(Same course as English 405.)

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

Prose and poetry of the King James version.

C LT 440. African Literature (3)

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

Comparative study of African literature as well as Black literature of North and South America and the Caribbean; intercontinental influences and the theme of Black identity.

C LT 445. Modern Latin American Literature (3)

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

Reading selections from major Latin American authors.

C LT 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.

C LT 470. Folk Literature (3)

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

Studies in the ballad, bardic poetry, oral and popular literature and folklore.

C LT 490. Literary Movements (3)

A movement or theme in world literature—such as symbolism, existentialism, revolution, or romantic love. See *Class Schedule* for specific content.

C LT 499. Special Study (1-3) Cr/NC I, II

Prerequisites: Consent of instructor and approval of department chair.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

Prerequisite for all 500-level courses: Six units in literature or three units in literature and three units in a related area appropriate to the course in question.

C LT 512. European Literature Before 1800 (3)

Study of a literary period such as the Middle Ages, Renaissance, or Enlightenment. May be repeated with new content. Maximum credit six units.

C LT 513. Nineteenth Century European Literature (3)

European literature of the nineteenth century or of a more limited period within that century. May be repeated with new content. Maximum credit six units.

C LT 514. European Literature Since 1900 (3)

Study of a literary period such as the Age of Modernism. May be repeated with new content. Maximum credit six units.

C LT 530. Topics in Asian Literature (3)

Specialized study of a selected topic in Asian literature. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

C LT 561. Fiction (3)

A comparative approach to themes and forms in fiction (novel and short story). Focus of course to be set by instructor. May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

C LT 562. Drama (3)

Forms and themes in drama. Focus of course to be set by instructor. May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

C LT 563. Poetry (3)

A comparative approach to themes and forms in poetry. Focus of course to be set by instructor. May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

C LT 571. Literary Use of Legend (3)

Literary treatment of such legendary figures as Don Juan, Faust, and Ulysses, in a wide range of literature and genres. See *Class Schedule* for specific content.

C LT 577. Major Individual Authors (3)

In-depth study of the works of a major author, such as Dante, Murasaki, or Dostoyevsky. May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

C LT 580. Concepts in Comparative Studies (3)

Basic concepts in comparative studies in literature (e.g., influence, movement, figure, genre, etc.); their validity, usefulness, and limitations. May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

C LT 594. Topics in Literature and the Arts (3)

Prerequisite: Six upper division units in literature or any of the other arts.

Comparative study of literature and other arts such as painting, sculpture, architecture, music, dance, and film. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to a bachelor's degree. Maximum credit six units applicable to the M.F.A. degree in creative writing.

C LT 595. Literature and Aesthetics (3)

Prerequisite: Six upper division units in literature or any of the other arts.

Theoretical and experiential investigation of relationships between literature and the other arts; literary works in context of an inquiry into aesthetics.

C LT 596. Topics in Comparative Literature (3)

An intensive study of a topic to be selected by the instructor. May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

Computer Engineering

In the College of Engineering

OFFICE: Engineering 426
TELEPHONE: 619-594-5718
E-MAIL: compe@engineering.sdsu.edu

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

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: Chandramani, Zhang

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

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

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)

II. Foundations: 29 units

A. Natural Sciences and Quantitative Reasoning (17 units):

1. Physical Sciences (7 units)
Physics 195 (3 units)
Physics 196 and 196L (4 units)
2. Life Sciences (3 units)
3. Laboratory (satisfied under A.1. above)
4. Mathematics/Quantitative Reasoning

You may **not** use Credit/No Credit grades.

Mathematics 150 (3 units)
Mathematics 151 (4 units)

B. Social and Behavioral Sciences (3 units)

C. Humanities (9 units)

Complete three courses in three different areas. One of these courses and the one under IV.A. below must be taken in the same department.

III. American Institutions: Three units of the six units of coursework which meet the American Institutions graduation requirement may be used in General Education, excluding courses numbered 500 and above.

IV. Explorations: Courses in this area must not be taken sooner than the semester in which you achieve upper division standing (60 units passed). Upper division courses in the major department may not be used to satisfy General Education. Total 9 units; must include one course of cultural diversity.

A. Upper division Humanities (3 units)

Three units must be taken from the same department as one of the Humanities courses selected in Foundations.

B. Upper division Humanities (3 units from a department not selected in A above.)

C. Upper division Social and Behavioral Sciences (3 units)

The Major

Computers are machines that store and process information. Desktop computers, portables, workstations, and mainframe computers are the most readily recognized examples of such devices. Equally important, however, are the millions of tiny computers (micro-processors) 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 text-based 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 overall objective of the undergraduate program in computer engineering is to produce the best skilled, hands on practicing computer engineer. More specifically the objectives are:

- To provide students with the technical knowledge and skills that will enable them to have a successful career in the computer engineering profession;
- To provide students with a general education that will enable them to appreciate the social, ethical, economic, and environmental dimensions of problems they may face;
- To develop in students the communication skills and social skills that are necessary to work effectively with others;
- To develop the ability of students to solve problems by learning what is already known, and then applying logic and creativity to find a solution;
- To provide students with the intellectual skills necessary to continue learning and to stay current with the profession as it changes.

Computer Engineering Major

With the B.S. Degree (Major Code: 09094)

The program below describes the 129 units required for the degree.

Preparation for the Major. Computer Engineering 160, 260, 270, 271; Electrical Engineering 210; Engineering 280; Mathematics 150, 151, 245, 254; Physics 195, 196, 196L. (39 units)

General Education. Engineering students must follow the specific General Education program outlined on this page. Other General Education requirements and limitations, as well as listings of specific General Education course electives are presented in Section IX of Graduation Requirements for the Bachelor's Degree. (Forty-nine units, including 14 units from preparation for the major which count toward General Education credit, and three units of American institutions which count toward General Education credit.)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

COMPUTER ENGINEERING MAJOR

FRESHMAN YEAR

<i>Fall Semester</i>	<i>Units</i>	<i>Spring Semester</i>	<i>Units</i>
Mathematics 150, Calculus I	4	COMPE 160, Intro. to Computer Prog.....	3
General Education*	12	Mathematics 151, Calculus II	4
		Physics 195, Principles of Physics.....	3
		General Education*	6
	16		16

SOPHOMORE YEAR

<i>Fall Semester</i>	<i>Units</i>	<i>Spring Semester</i>	<i>Units</i>
COMPE 270, Digital Systems	3	COMPE 260, Data Structures and Object-Oriented Programming.....	3
Engineering 280, Methods of Analysis	3	COMPE 271, Computer Organization	3
Mathematics 245, Discrete Mathematics..	3	Mathematics 254, Intro. to Linear Algebra .	3
Physics 196, 196L Principles of Physics...	4	EE 210, Circuit Analysis I	3
American Institutions*	3	General Education*	3
	16		15

JUNIOR YEAR

<i>Fall Semester</i>	<i>Units</i>	<i>Spring Semester</i>	<i>Units</i>
COMPE 375, Embedded Systems Prog. .	3	COMPE 361, Windows Programming	3
COMPE 470, Digital Circuits	3	COMPE 470L, Digital Circuits Lab.	1
EE 300, Comp. and Stat. Methods.....	3	EE 410, Signals and Systems	3
EE 310, Circuit Analysis II	3	Technical Elective+	3
EE 330, 330L, Fund. Engr. Electronics.....	4	General Education*	6
	16		16

SENIOR YEAR

<i>Fall Semester</i>	<i>Units</i>	<i>Spring Semester</i>	<i>Units</i>
COMPE 460, Software Design and Engr...	3	Technical Electives+	6
COMPE 475, Microprocessors	3	General Education*	6
Technical Electives+	9	COMPE 490, Senior Design Project.....	4
American Institutions*	3		
	18		16

* See previous page for specific requirements.

+ Check with department for approved courses.

Major. A minimum of 51 upper division units to include Computer Engineering 361, 375, 460, 470, 470L, 475, 490; Electrical Engineering 300, 310, 330, 330L, 410; one approved elective course in mathematics (3 units); three engineering design elective courses selected from Computer Engineering 560, 561, 565, 572, Electrical Engineering 530, 539, 556, 581 or other approved elective (9 units); two approved technical elective courses in computer engineering, computer science, or electrical engineering (6 units). After enrollment in Computer Engineering at SDSU, the Computer Engineering major must take all upper division computer science and engineering courses at SDSU unless prior approval is obtained from the department.

Elective courses are subject to the approval of the faculty adviser and the department chair. The student must file an approved Master Plan during the first semester of the junior year specifying the electives selected. Changes in the Master Plan are permitted at any time, with approval of the department chair.

Courses (COMPE)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

NOTE: Prerequisites will be enforced in all undergraduate computer engineering and electrical engineering courses numbered 100 through 599. A copy of an official transcript will be accepted as proof. For corequisites, an enrollment confirmation form will be accepted.

Any course at the 300 level or below must be passed with a grade of C- or better in order to be used as a prerequisite for any subsequent course.

LOWER DIVISION COURSES

COMPE 160. Introduction to Computer Programming (3) I, II

Two lectures and three hours of laboratory.

Prerequisite: Mathematics 150.

Computer organization and operation. Binary representation of information. Fundamentals of computer programming using a C family language: data types, selection and iteration structures, functions, arrays, pointers, scope and duration of variables. Systematic design and development of computer programs.

COMPE 260. Data Structures and Object-Oriented Programming (3)

Prerequisites: Computer Engineering 160 and Mathematics 245.

Data structures using object-oriented programming. Disciplined approach to design, coding, and testing using OOP, teach use and implementation of data abstractions using data structures. Arrays, linked lists, stacks, queues, trees. Sorting, searching, recursive algorithms.

COMPE 270. Digital Systems (3) I, II

Prerequisite: Mathematics 151.

Modelling, analysis and design of digital systems, primarily at the Logic Design level. Combinational and sequential networks. Not open to students with credit in Electrical Engineering 370.

COMPE 271. Computer Organization (3) I, II

Prerequisites: Computer Engineering 160 and 270.

Organization and operation of computer hardware and software. Operating system shell and services. Program design and development. Input-output programming. Multi-module and mixed-language programming. Assembler and C language.

UPPER DIVISION COURSES (Intended for Undergraduates)

COMPE 361. Windows Programming (3)

Prerequisites: Computer Engineering 260 and 271.

Graphical user interface programming: Dialog boxes, menus, toolbars, status bars, fonts, icons, bitmaps. Event-driven programming, processes, event message processing, timers, on-idle processing, multithreaded programming. C++ windows class libraries: Integrated development environments, application framework, document view architecture. Visual programming.

COMPE 375. Embedded Systems Programming (3)

Two lectures and three hours of laboratory.

Prerequisite: Computer Engineering 271.

Embedded system architecture; IO programming using parallel ports, serial ports, timers, and D/A and A/D converters; interrupts and real-time programming; program development and debugging tools; C language and assembler.

COMPE 460. Software Design and Engineering (3)

Prerequisites: Computer Engineering 260 and 361.

Software design and engineering using object-oriented concepts. Object-oriented software development, classes, inheritance, design by abstraction, design patterns, object-oriented application framework, and introduction to concurrent and distributed computing. Application through design case study.

COMPE 470. Digital Circuits (3) I

Prerequisite: Computer Engineering 270.

Design of digital electronic systems using commercially available high-speed digital devices and circuits.

COMPE 470L. Digital Logic Laboratory (1) I, II

Three hours of laboratory.

Prerequisites: Computer Engineering 470 and Electrical Engineering 330L.

Hands-on experience in characterization and application of standard digital integrated circuit devices.

COMPE 475. Microprocessors (3) II

Prerequisites: Computer Engineering 375 and 470.

Bus design, memory design, interrupt structure, and input/output for microprocessor-based systems.

COMPE 490. Senior Design Project (4) I, II

Two lectures and six hours of laboratory.

Prerequisites: Computer Engineering 460, 470L, 475.

Supervised capstone design projects to provide an integrative design experience for seniors to include ethics, professionalism, cost-effectiveness, and project management.

COMPE 496. Advanced Computer Engineering Topics (1-3)

Prerequisite: Consent of instructor.

Modern developments in computer engineering. See *Class Schedule* for specific content. Maximum credit nine units for any combination of Computer Engineering 496 and 596 applicable to a bachelor's degree.

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

Prerequisite: Approval of project adviser and department chair.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

COMPE 560. Computer and Data Networks (3)

Two lectures and three hours of laboratory.

Prerequisites: Computer Engineering 271 and Electrical Engineering 410.

Wide area and local area networks. Multi-layered protocol models, telephone systems, modems, and network applications.

COMPE 561. 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.

COMPE 565. Multimedia Communication Systems (3)

Prerequisite: Credit or concurrent registration in Computer Engineering 560.

Design and implementation of multimedia communication systems. Image compression, JPEG, VQ, cell-B standards. Video and audio compression standards, MPEG, MPEG-2, H.26X, G.72X. Data storage systems and multimedia requirements. Networking requirements and networks as multimedia carriers. Transport and network protocols for carrying multimedia over data networks. Multimedia system design, scheduling, congestion control, traffic shaping, buffer management.

COMPE 572. VLSI Circuit Design (3) I

Prerequisites: Computer Engineering 271 and Electrical Engineering 330.

Design of digital integrated circuits based on CMOS technology; characterization of field effect transistors, transistor level design and simulation of logic gates and subsystems; chip layout, design rules, introduction to processing; ALU architecture.

COMPE 596. Advanced Computer Engineering Topics (1-3) I, II

Prerequisite: Consent of instructor.

Modern developments in computer engineering. See *Class Schedule* for specific content. Maximum credit of nine units for any combination of Computer Engineering 496 and 596 applicable to a bachelor's degree. Maximum combined credit of six units of Computer Engineering 596 and 696 applicable to a 30-unit master's degree.



Computer Science

OFFICE: Geology/Mathematics/Computer Science 413
TELEPHONE: 619-594-6191

In the College of Sciences

The B.S. degree in Computer Science is accredited by the Computer Science Accreditation Commission of the Computing Sciences Accreditation Board.

Faculty

Emeritus: Anantha, Baase-Mayers, Donald, Marovac, Vinge
Chair: Beck
Professors: Beck, Carroll, Stewart, Swiniarski, Tarokh, Vuskovic
Associate Professors: Eckberg, Valafar, Whitney
Assistant Professors: Lewis, Roch
Lecturers: Bajic, Riggins
Adjunct: Root, Thomas

Offered by the Department

Master of Science degree in computer science.
Major in computer science with the B.S. degree in applied arts and sciences.
Minor in computer science.
Certificate in geographic information science.

The Major

Computer Science is the study of computers and their applications. It is concerned with methods for storing and retrieving information, with the design and use of languages for writing computer programs, with the hardware systems that interpret such languages, and with the theoretical principles that form the foundations of computing. Computer Science includes a wide variety of specialties and application areas such as artificial intelligence, robotics, graphics, systems programming, simulation, and computer networks.

The Bachelor of Science in Computer Science is designed to provide students with a fundamental understanding of modern computing methodology and programming practices along with a complementary knowledge of hardware. The first two years provide the basic preparation in programming, data structures and architecture. The final two years are devoted to more advanced fundamentals and specialized electives.

Computers are used to store and manage information, to analyze scientific data, and in a wide variety of other applications. Computing technology is found in an almost limitless number of settings, ranging from automobiles to household appliances to toys. Because of this, a wide range of jobs are open to people trained in Computer Science. Employment opportunities are expected to remain very strong.

Computer Science Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 07011)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required for this major.

Preparation for the Major. Computer Science 107, 108, 237; Mathematics 150, 151, 245, 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. (40-42 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 37 upper division units to include Computer Science 310, 320, 370, 440, 490, 530, 560, 570; at least one course selected from Mathematics 541, 579, Statistics 350A, 550, or 551A; and 12 units of computer science electives selected with the approval of a computer science major adviser. At least nine units of electives must be in computer science. 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.

Courses in the minor may not be counted toward the major, but may 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)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

CS 100. Fundamental Ideas in Computer Science (3)

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.

Capabilities and applications of computers. Algorithmic problem-solving methods and computer programming. Using computers to examine questions from other fields of study. Practical and theoretical limits to computation. Machine intelligence and heuristic problem solving. Social and legal impact of computers.

CS 105. Visual Basic Programming (3)

Programming and problem solving using Visual Basic programming language on the PC.

CS 106. Introduction to Computer Programming with FORTRAN (3) (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.

CS 107. Introduction to Computer Programming (3) I, II

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.

Programming methodology and problem solving. Basic concepts of computer systems, algorithm design and development, data types, program structures. Extensive programming in Java.

CS 108. Intermediate Computer Programming (3) I, II

Prerequisites: Qualification on the Mathematics Departmental Placement Examination, Part IA; and Computer Science 107.

Further training in program design and development. Introduction to data structures: stacks, queues, linear lists, trees, sets, and recursion. Extensive programming in Java.

CS 205. Introduction to Computational Programming and Visualization (3)

Prerequisite: First semester calculus (either Mathematics 120 or 121 or 150).

Problem solving skills for needs of science. Use of computing and software tools of computational science introduced to gain competence in computer communications, programming and visualization. Supervised computer laboratory.

CS 220. UNIX and the C Programming Language (3)

Prerequisite: Computer Science 108.

Introduction to the UNIX operating system: shell programming, major system services and utilities. The C language: its features and their significance in the UNIX programming environment.

CS 237. Machine Organization and Assembly Language (3) I, II

Prerequisite: Computer Science 108.

General concepts of machine and assembly language, data representation, looping and addressing techniques, arrays, subroutines, macros. Extensive assembly language programming.

CS 296. Experimental Topics (1-4)

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

CS 299. Special Study (1-3)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Intended for Undergraduates)

CS 301. Computers and Society (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Impact of computers and computing technology on society: applications, benefits, and risks. Topics include privacy, copyright, computer crime, constitutional issues, risks of computer failures, evaluating reliability of computer models, computers in the workplace, trade and communications in the global village. Not open to computer science majors or to students with credit in Computer Science 440.

CS 310. Data Structures (3) I, II

Prerequisites: Computer Science 108 and Mathematics 245.

Representations and operations on basic data structures. Arrays, linked lists, stacks, queues, and recursion; binary search trees and balanced trees; hash tables, dynamic storage management; introduction to graphs. An object oriented programming language will be used.

CS 320. Programming Languages (3) I, II

Prerequisite: Computer Science 108.

Principles of high-level programming languages, including formal techniques for syntax specification and implementation issues. Languages studied should include at least C++, FORTRAN, and LISP.

CS 370. Computer Architecture (3) I, II

Prerequisite: Computer Science 237.

Logic gates, combinational circuits, sequential circuits, memory and bus system, control unit, CPU, exception processing, traps and interrupts, input-output and communication, reduced instruction set computers, use of simulators for analysis and design of computer circuits, and traps/interrupts.

CS 425. Tcl and Tk Interface Programming (3)

Prerequisite: Computer Science 220.

Presentation of Toolkit Command Language (Tcl) and Toolkit (Tk) languages, a portable programming environment for creating graphical user interfaces under X Windows, Microsoft Windows, and Macintosh. Writing scripts for Tcl, Tk, and extensions such as Expect.

CS 435. Advanced Java Programming (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.

CS 440. Social, Legal, and Ethical Issues in Computing (3)

Prerequisite: Computer Science 108.

Impact of computers, applications, and benefits, copyright, privacy, computer crime, constitutional issues, risks of computer failures, evaluating reliability of computer models, trade and communications in the global village, computers in the workplace, responsibilities of the computer professional. Not open to students with credit in Computer Science 301.

CS 470. UNIX System Administration (3)

Prerequisite: Computer Science 220.

Installing the UNIX operating system on a UNIX workstation, adding user accounts, backing up and restoring user files, installing windows, adding network capabilities, adding printers and other peripherals.

CS 490. Senior Seminar (1)

Prerequisite: Fifteen units of upper division computer science courses.

Preparation and delivery of oral presentations on advanced topics in computer science. General principles of organization and style appropriate for presenting such material.

CS 496. Experimental Topics (1-4)

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

CS 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.

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

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

CS 501. Computational Software (3)

Prerequisites: Computer Science 106 and 310.

Design and implementation of software for computational science. Makefiles in UNIX environment, efficient Fortran and 00 programming, use of common application libraries, file and source code management, software documentation, construction of libraries and applications. Designed for computational science students. Computer science majors must obtain adviser approval.

CS 503. Scientific Database Techniques (3)

Prerequisites: Computer Science 205, 310, and Mathematics 245.

Fundamental data models for handling scientific data, including flat file, indexed compressed files, relational databases, and object oriented databases, and their associated query technologies; e.g. file formats, input/output libraries, string searching, structured query language, object-oriented structured query language, hypertext markup language/common gateway interface, and other specialized interfaces. Designed for computational science students. Computer science majors must obtain adviser approval. See Computer Science 514.

CS 505. Parallel Computing (3)

Prerequisite: Computer Science 310. Recommended: Computer Science 501.

Motivations and methods of high performance computing. Modern computer architecture characteristics, uniprocessor programming and tuning, shared and distributed memory programming techniques, benchmarking. Designed for computational science students. Computer science majors must obtain consent of adviser.

CS 514. Database Theory and Implementation (3)

Prerequisites: Computer Science 310 and Mathematics 245.

Database systems architecture. Storage structures and access techniques. Relational model, relational algebra and calculus, normalization of relations, hierarchical and network models. Current database systems.

CS 520. Advanced Programming Languages (3)

Prerequisites: Computer Science 237, 310, and 320.

Object oriented programming, concurrent programming, logic programming. Implementation issues.

CS 524. Compiler Construction (3)

Prerequisites: Computer Science 237, 310, and 320.

Syntactical specification of languages. Scanners and parsers. Precedence grammars. Run-time storage organization. Code generation and optimization.

CS 530. Systems Programming (3) I, II

Prerequisites: Computer Science 237 and 310.

Design and implementation of system software. Relationship between software design and machine architecture. Topics from assemblers, loaders and linkers, macro processors, compilers, debuggers, editors. Introduction to software engineering and review of programming fundamentals and object oriented concepts. Large project in object oriented programming is required. Not acceptable for the M.S. degree in computer science.

CS 532. Software Engineering (3)

Prerequisites: Computer Science 320 and 530.

Theory and methodology of programming complex computer software. Analysis, design, and implementation of programs. Team projects required.

CS 533. Component Based Software Engineering (3)

Prerequisites: Computer Science 310 and 320.

Component based (CB) software development using UML and other design methods. Development of components for use in CB systems; CB software architectures; development of CB systems; comparison of traditional and CB system development methods.

CS 534. Software Measurement (3)

Prerequisite: Computer Science 532.

Basics of software measurement and use of measurement information to ensure quality software and determine software process effectiveness. Software estimation, cost estimation models, definition of various measures, tools to support measurement collection and analysis, analysis techniques, and case studies.

CS 535. Object-Oriented Programming and Design (3)

Prerequisites: Computer Science 310 and 320.

Basic concepts of object-oriented programming; classes, objects, messages, data abstraction, inheritance, encapsulation. Object-oriented design methodology.

CS 550. Artificial Intelligence (3)

Prerequisites: Computer Science 108 and either Mathematics 245 or 523.

Heuristic approaches to problem solving. Systematic methods of search of the problem state space. Theorem proving by machine. Resolution principle and its applications.

CS 551. User Interface Environments (3)

Prerequisites: Computer Science 310 and 320.

Design of user-machine interfaces in interactive systems. Problems faced by user of an interactive system; basic issues and principles involved in design and implementation of good and friendly user-machine graphical interfaces.

CS 552. Artificial Intelligence II (3)

Prerequisite: Computer Science 550.

Limitations of symbol-based approach to artificial intelligence from Computer Science 550. Presented alternatives are genetic and probabilistic approaches, connectionist and emergent representation and learning, natural language processing, intelligence measures and cognitive models. Seminal publications shaping these techniques.

CS 553. Neural Networks (3)

Prerequisites: Computer Science 320 and Mathematics 254.

Principles of neural networks, their theory and applications.

CS 555. Raster Computer Graphics (3)

Prerequisite: Computer Science 551.

Bit map graphics, algorithms to connect between different formats and enhancement of pictures.

CS 556. Robotics: Mathematics, Programming, and Control (3)

Prerequisites: Computer Science 320, Mathematics 254, knowledge of the C programming language.

Robotic systems including manipulators, actuators, sensors, and controllers. Kinematics of planar robots. Design and implementation of robot joint controllers. Robot programming languages and environments, and robot command interfaces.

CS 558. Computer Simulation (3)

Prerequisites: Computer Science 310 and Statistics 550.

Methodology of simulation for discrete and continuous dynamic systems. State-of-the-art programming techniques and languages. Statistical aspects of simulation. Students will design, program, execute, and document a simulation of their choice.

CS 559. Computer Vision (3)

Prerequisites: Computer Science 310 and Mathematics 254.

Algorithms and computer methods for processing of images. Visual perception as a computational problem, image formation, characterization of images, feature extraction, regional and edge detection, computer architectures for machine vision.

CS 560. Algorithms and Their Analysis (3) I, II

Prerequisite: Computer Science 310.

Algorithms for solving frequently occurring problems. Analysis techniques and solutions to recurrence relations. Searching and sorting algorithms. Graph problems (shortest paths, minimal spanning trees, graph search, etc.). NP complete problems. Not acceptable for the M.S. degree in Computer Science.

CS 561. Multimedia Systems (3)

Prerequisite: Computer Science 551.

System aspects of multimedia authoring, browsing, and database subsystem; digital representation for different media; audio and video; operating system support for continuous media applications; architectures; design and implementation of multimedia support systems; use of multimedia technology in software engineering.

CS 562. Automata Theory (3)

Prerequisite: Mathematics 245 or 521A.

Definition of finite automata. Classification of finite automaton definable languages. Minimization of finite automata. Nondeterministic finite automata. Sequential machines with output. Regular sets and expressions. Introduction to grammars.

CS 564. Introduction to Computability (3)

Prerequisite: Mathematics 245 or 523.

Definition of algorithm by abstract (Turing) machines. Universal Turing machines. Primitive recursive and recursive functions. The equivalence of the computational power of Turing machines and recursive functions. Limitations and capabilities of computing machines; the halting problem.

CS 566. Queuing Theory (3)

Prerequisites: Computer Science 108 and Statistics 550.

Performance prediction of computer networks and other systems (e.g., inventory control, customer service lines) via queuing theory techniques. Operational analysis.

CS 570. Operating Systems (3) I, II

Prerequisites: Computer Science 310, 370, and knowledge of the C programming language.

File systems, processes, CPU scheduling, concurrent programming, memory management, protection. Relationship between the operating system and underlying architecture. Not acceptable for the M.S. degree in Computer Science.

CS 571. UNIX Network Administration (3)

Prerequisite: Computer Science 470.

Network administration for UNIX workstations and servers. File server, mail server, boot server, and Web server. TC/IP administration, routing, subnetting, and NIS plus data base.

CS 572. Microprocessor Architecture (3)

Prerequisites: Computer Science 370 and knowledge of the C programming language.

Architecture of state-of-the-art microprocessor. Internal pipeline, internal cache, external cache, and memory management. Programming a uniprocessor. Communication among computers in a distributed environment. Architecture and programming of a multiprocessor system.

CS 574. Computer Security (3)

Prerequisites: Computer Science 310; Mathematics 245; Statistics 550; and credit or concurrent registration in Computer Science 570.

Principles of computer security and application of principles to operating systems, database systems, and computer networks. Topics include encryption techniques, access controls, and information flow controls.

CS 575. Supercomputing for the Sciences (3)

Prerequisite: Extensive programming background in Fortran or C.

Interdisciplinary course, intended for all science and engineering majors. Advanced computing techniques developed for supercomputers. Overview of architecture, software tools, scientific computing and communications. Hands-on experience with CRAY.

CS 576. Computer Networks and Distributed Systems (3)

Prerequisite: Credit or concurrent registration in Computer Science 570.

Basic networking concepts such as seven-layer reference model, transmission media, addressing, subnetting and supernetting, networking devices, LANs and WANs, internetworking, distributed processing, and client-server model. Basic concepts and protocols of TCP/IP protocol suite and basic Internet services.

CS 580. Client-Server Programming (3)

Prerequisites: Computer Science 570 and knowledge of an object-oriented programming language. Recommended: Computer Science 576.

Client-server model, networking protocols for client-server programs, algorithmic issues in client-server programs, client-server protocols, implementing client-server applications.

CS 581. Computational Linguistics (3)

(Same course as Linguistics 581.)

Prerequisites: Computer Science 320 or Linguistics 571; Linguistics 570 or Mathematics 245.

Basic concepts in computational linguistics including regular expressions, finite-state automata, finite-state transducers, weighted finite-state automata, and n-gram language models. Applications to phonology, orthography, morphology, syntax. Probabilistic models. Statistical techniques for speech recognition.

CS 582. Introduction to Speech Processing (3)

Prerequisite: Computer Science 310.

Fundamentals of speech processing and speech recognition. Physical aspects of speech production and perception. Mathematical models for speech recognition. Corpus development: data collection, processing, and evaluation. Applications of speech processing and associated research topics.

CS 596. Advanced Topics in Computer Science (1-4) I, II

Prerequisite: Consent of instructor.

Selected topics in computer science. May be repeated with the approval of the instructor. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to *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

OFFICE: North Education 179
TELEPHONE: 619-594-6109
FAX: 619-594-7025

In the College of Education

Accredited by the California Commission on Teacher Credentialing and the National Association of School Psychologists.

Faculty

Emeritus: Cummins, Feinberg, Hawley, Howard, Malcolm, Miller, Ramage, Thompson

Chair: Robinson-Zañartu

Professors: Cook-Morales, Ingraham, Monk, Robinson-Zañartu, Senour

Associate Professors: O'Shaughnessy, Terry-Guyer

Assistant Professors: Butler-Byrd, Green, Hernandez, Lim, Taylor

Offered by the Department

Educational Specialist degree in school psychology

Master of Arts degree in education.
Concentration in counseling.

Master of Science degree in counseling.
Concentration in marriage and family therapy.
Concentration in school counseling.
Concentration in school psychology.

Pupil personnel:

School counseling credential.

School psychology credential.

Certificate in cultural and community trauma studies (offered only in Extension) (refer to *Bulletin of the Graduate Division*).

Courses (CSP)

Refer to *Courses and Curricula and University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES (Intended for Undergraduates)

CSP 310. Group Leadership in Educational Settings (3)

Two lectures and two hours of activity.

Prerequisites: Anthropology 102 or Psychology 101 or Sociology 101; and completion of 60 units.

Identifying, classifying, and analyzing the components essential to development of leadership in educational settings. Simulation activities assist students in acquisition of group leadership skills.

CSP 400. Counseling and the Helping Professions (3) I, II

Serves as an introduction to the field of counseling and introduces the student to those professions considered to be helping professions.

CSP 401. Theories and Processes of Personal Integration (3) I, II

Perspectives of and strategies for developing and maintaining a functional balance among intellectual, physical, emotional, and interpersonal aspects of daily living.

“What lies behind us and
what lies before us are
small matters compared
to what lies within us.”

— Oliver Wendell Holmes

CSP 450. Marriage and Family Therapy (3) I, II

Prerequisites: Minimum of 15 units of coursework from Child and Family Development, Psychology, or Social Work.

Profession of family therapy. Problem formation and resolution processes that take place in families and other close relationships. Application of concepts within diverse contexts to one's own family experience.

CSP 496. Experimental Topics (1-3)

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

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

Prerequisite: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.

Individual study. Maximum credit six units.

UPPER DIVISION COURSE (Also Acceptable for Advanced Degrees)

CSP 596. Selected Studies (1-3)

Prerequisite: Consent of instructor.

A series of lecture and discussion sessions centering on current problems in counseling and guidance. Designed to serve the needs of any person desiring to keep informed of developments in this area. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit of six units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

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

Criminal Justice Administration

In the College of Professional Studies and Fine Arts

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: McIlwain, Pearl, Sabath

Assistant Professor: Nurge

Offered by the School of Public Administration and Urban Studies

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

The Major

The purpose of the criminal justice administration program is to provide current and future decision-makers in criminal justice with the foundation for critical and balanced as well as responsible and effective administrative responses. As the systems designed to deliver justice services are continually asked to accomplish more with fewer resources, the need for able and professional administrators becomes more and more pressing. The mission of the department is to provide graduates with the background and ability to meet this challenge.

Criminal justice administration majors with the B.S. degree have typically found employment at entry-level positions in local, state, and federal criminal justice agencies or in private business or security positions (e.g., loss prevention officer). At the local level, graduates can begin service in various capacities with police, sheriff's and marshal's offices, probation, county supervisors, city administration, and criminal justice planning agencies. At the state level, graduates may enter the Highway Patrol, Alcohol Beverage Control, Attorney General's Office, Department of Corrections, California Youth Authority, or related agencies. At the federal level, graduates are employed in agencies such as the FBI, Customs Service, Border Patrol, Secret Service, Drug Enforcement Agency, Naval Intelligence Service, Defense Investigative Services, 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. To be admitted to the criminal justice administration major, students must meet the following criteria:

- 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);
- Complete a minimum of 60 transferable semester units;
- Have a cumulative GPA of 2.40 or higher; and
- Students not meeting the minimum GPA requirements may petition for special consideration.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU and must be continuously enrolled.

Criminal Justice Administration Major

With the B.S. Degree in Applied Arts and Sciences

(Major Code: 21051)

All candidates for a degree in applied arts and sciences must complete the graduation requirements in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

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)

These prerequisite courses may not be taken Cr/NC. The minimum grade in each class is C or higher.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include one criminal justice practicum course selected from Criminal Justice Administration 430 (Offered only in Extension), 496 (Russian Criminal Justice Systems – Offered only in Extension), 497, 498, 531, 543, International Security and Conflict Resolution 450; Criminal Justice Administration 301, 540; Public Administration 301; six additional units in public administration selected from upper division public administration courses. Eighteen additional upper division units selected with approval of a department adviser, to include nine upper division units in criminal justice administration courses. 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)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSE

CJA 200. Introduction to Criminal Justice Administration (3) I, II (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)

CJA 301. Social Control, Social Policy and Administration of Justice (3) I, II

Prerequisites: Criminal Justice Administration 200 with a grade of C or better and completion of all other lower division preparation for the major courses.

Interrelationship of social control, social policy and administration of criminal justice in contemporary American society.

CJA 305. Professions, Practices and Ethics in Criminal Justice Administration (3)

Prerequisite: Criminal Justice Administration 301.

Professional roles and responsibilities of practitioners and administrators in criminal justice agencies, including consideration of the ethical responsibilities of criminal justice practitioners.

CJA 310. Law Enforcement Administration (3)

Prerequisite: Criminal Justice Administration 301.

Assessment of the structure and functions of agencies and institutions which comprise the juvenile justice system in America; evolution of policies and programs for prevention of delinquency and treatment of the juvenile offender.

CJA 320. The Administration of Criminal Law (3)

Prerequisite: Criminal Justice Administration 301.

Constitutional law principles as implemented in criminal courts with emphasis on critical analysis of factual situations and the argument of legal issues in criminal cases from both defense and prosecution perspectives.

CJA 321. Juvenile Justice Administration (3)

Prerequisite: Criminal Justice Administration 301.

Assessment of the structure and functions of agencies and institutions which comprise the juvenile justice system in America; evolution of policies and programs for prevention of delinquency and treatment of the juvenile offender.

CJA 330. Contemporary Correctional Administration (3)

Prerequisite: Criminal Justice Administration 301.

Contemporary policies and practices of local, state and federal correctional agencies, the influence of reform movements, and the interrelationship of corrections with other criminal justice system components.

CJA 333. Judicial Administration (3)

Prerequisites: Criminal Justice Administration 301 and Public Administration 301.

Review of significant developments at the state and federal levels, including court unification and financing, leadership, congestion, training, selection, tenure, discipline, removal and retirement of court-related personnel; and technological applications.

CJA 420. Constitutional Issues in the Administration of Justice (3)

Prerequisite: Criminal Justice Administration 301.

Constitutional legal theories and principles, especially the Fourth, Fifth, Sixth, and Eighth Amendments to the Constitution, as they affect criminal justice procedures and practices.

**CJA 430. Prisons in Theory and Practice (3) Cr/NC
(Offered only in Extension)**

Two lectures and forty hours of supervised activity.

Prerequisites: Criminal Justice Administration 200 and consent of instructor.

Design and operation of state and federal prisons in California from the perspective of staff and inmates. Onsite study and critique of facilities.

CJA 496. Selected Topics in Criminal Justice Administration (1-3)

Selected current topics in criminal justice administration. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units. (Formerly numbered Criminal Justice Administration 495.)

CJA 497. Senior Thesis (3) I, II

Prerequisites: Senior standing and consent of instructor.

Using library, Internet, and empirical research. Analysis of current criminal justice policy issues.

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

CJA 499. Special Study (1-3) Cr/NC I, II

Prerequisites: Twelve units of upper division criminal justice administration and consent of instructor.

Individual study. Maximum credit six units.

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

CJA 510. Contemporary Issues in Law Enforcement Administration (3)

Prerequisite: Criminal Justice Administration 310.

Assessment of problems confronting administrators of law enforcement agencies and of recent efforts to enhance the capability of agencies to control criminal activity while guarding individual liberties.

CJA 520. Prosecutorial Function in Administration of Justice (3)

Prerequisite: Criminal Justice Administration 301.

Analysis of prosecutor's function at local, state and federal levels and in selected foreign nations, including appraisal of proposed national standards and goals for prosecutors.

CJA 531. Probation and Parole (3)

Prerequisite: Criminal Justice Administration 330.

Basic concepts, history, legislation, and practices used in work with juveniles and adults who have been placed on probation or parole; criteria of selection, methods of supervision, and elements of case reporting.

CJA 540. Applied Planning, Research and Program Evaluation in Criminal Justice Administration (3) I, II

Prerequisite: Criminal Justice Administration 301.

Application of planning, research and program development and evaluation principles to the field of criminal justice.

CJA 543. Community Resources in Criminal Justice Administration (3)

Prerequisite: Criminal Justice Administration 301.

Exploration of present and probable roles of public and private agencies and volunteers in criminal justice administration.

CJA 570. Organized Crime: Domestic and International Perspectives (3)

Prerequisite: Criminal Justice Administration 301.

Interdisciplinary analysis of organized crime's impact on criminal justice administration and public policy on both domestic and international levels.

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

Dance

In the College of Professional Studies and Fine Arts

OFFICE: Music 112
TELEPHONE: 619-594-6031
FAX: 619-594-1692
E-MAIL: music.dance@sdsu.edu

Faculty

Emeritus: Willis
Director: Chambers
Professors: Nunn, Sandback
Associate Professor: Hempel

Offered by the School of Music and Dance

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

The Major

Dance serves to enhance the lives of all peoples and provides a challenging avenue of creative expression for those who wish to pursue its serious study. This program promotes dance as a communicative and expressive medium uniquely effective in the conveyance of meaning, emotion, and cultural values. Dance is a rigorous and specialized area of the performing arts, demanding a high level of physical preparation as well as a thorough understanding of aesthetics.

The Bachelor of Fine Arts in Dance provides professional preparation for dance majors in choreography, performance, scholarship, and teaching; more specifically, as choreographers and dancers with professional companies, teachers in community and recreation programs, schools and colleges, movement educators, and candidates for graduate work in dance scholarship.

The Bachelor of Arts in Dance is a liberal arts degree for those students who seek an understanding of and an intimate orientation to the discipline of dance without professional goals. This degree enables students to obtain this broad understanding.

A dance minor is available for those students whose primary interest is in another department.

As members of the University Dance Company, students perform in faculty choreography and repertory works set by distinguished guest artists in periodic workshops and residencies. Each B.F.A. student also stages original work in a senior concert. Dance activity courses provided in the school offer experiences for the general student population in modern, jazz, ballet, folk, and social forms.

Dance Major

With the B.F.A. Degree in Applied Arts and Sciences
(Major Code: 10082)

All candidates for a bachelor of fine arts degree must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." The maximum number of upper division units in dance courses acceptable toward the bachelor of fine arts degree is 70.

Entrance and placement auditions are required.

A minor is not required with this major.

For information regarding this program contact the adviser, Melissa Nunn, or the School of Music and Dance.

Preparation for the Major. Dance 110, 171, 181, 183, 221 (4 units), 231, 241 (8 units), 253, 255, 256, 285, 290, Biology 212. (33 units)

To qualify for upper division study, students must pass a Junior Level Review.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 41 upper division units to include Dance 353, 354, 365 (2 units), 371, 380A, 380B, 382, 421, 441 (9 units), 453, 481; 486 or 487; Dance 365 (2 additional units) or 471; six units of upper division dance electives.

Entrance and Progression Requirements

In addition to CSU and SDSU requirements, incoming students requesting the B.F.A. program in Dance will be required to perform an audition before the faculty in order to be admitted to the program. The audition will consist of:

- A warm-up demonstrating basic technical skills, a center adagio combination, a brief creative study involving improvisational choices and concluding with traveling phrases demonstrating jumping and turning locomotion.
- Students will also have the opportunity to perform a two-minute (minimum, five minute maximum) dance prepared by the student in modern dance, ballet or jazz.
- Students will be asked to bring a curriculum vitae of previous experience in dance or related fields (theatre, music, visual arts, film, gymnastics, dance team, etc).

The following qualities will be assessed:

- Basic technical skills in dance, and the aptitude for mastering physicality, musicality, phrasing and dynamics.
- Attentiveness and the comprehension of instructions.
- Creativity, enthusiasm, and spirit.
- Basic performance skills utilizing focus and presence.
- A commitment and respect for the disciplined study of dance.

In order to continue in the B.F.A. program in dance, students must demonstrate a continuing progress in all areas of skill development, choreography, musical assessment, etc., in the following ways:

- Successful completion of all coursework as assessed through written examination and through continuous performance evaluation each semester.
- Junior Level Review: Students must successfully pass this review to continue into the junior year. Faculty will formally review coursework and assess videotape samples of choreography and technique from the freshman and sophomore years.

Dance Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 10081)

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

Entrance and placement auditions are required.

A minor is not required with this major.

For information regarding this program contact the adviser, Melissa Nunn, or the School of Music and Dance.

Preparation for the Major. Dance 110, 171, 181, 183, 221 (4 units), 231, 241 (4 units), 253, 255, 285, 290; Biology 212. (28 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 24 upper division units to include Dance 353, 371, 380A, 380B, 382, 481; 486 or 487; and eight units of upper division dance electives.

Dance Minor

The minor in dance consists of a minimum of 24 units in dance, of which eight units must be upper division, to include Dance 181, 183, 221, 231, 241 (4 units), 253, 255, 353; 380A or 380B; and three units selected from Dance 371, 441, 471.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (DANCE)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

DANCE 100. Dance Activity (1)

Two hours of activity.

Open to all students. Provides physically skilled instruction and knowledge of ballroom, ethnic, ballet, jazz, and modern dance forms.

A. Beginning Ballroom Dance

C. Ethnic Dance

E. Beginning Ballet

F. Intermediate Ballet

G. Beginning Jazz Dance

H. Intermediate Jazz Dance

I. Beginning Modern Dance

J. Intermediate Modern Dance

DANCE 102. Elements of Dance for Non-Dance Majors (3)

Two lectures and two hours of activity.

Developing an understanding of elements of dance: time, space, dynamics, and intention. Relationship to national and state educational standards. Designed for future teachers. Not open to dance majors.

DANCE 110. Historical and Contemporary Social Dance Forms (1) I

Two hours of activity.

Prerequisite: Consent of instructor.

Court and country dances including social dances of the nineteenth and twentieth centuries.

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

Three hours of laboratory.

Technical experience in dance production.

DANCE 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.

DANCE 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.

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.

DANCE 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.)

DANCE 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.

DANCE 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.

DANCE 255. Dance Improvisation I (1) II

Two hours of activity.

Exploring improvisation through specific stimulus leading to the acquisition of basic improvisational skills.

DANCE 256. Dance Improvisation II (1) I

Two hours of activity.

Prerequisite: Dance 255.

Practice in more complex arrangements of improvisation.

DANCE 285. Dance Pedagogy (2) I

Four hours of activity.

Teaching theory as applied to ballet, modern, jazz, and social dance for adult populations.

DANCE 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.

DANCE 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

DANCE 302. Dance for Children (3)

Prerequisite: Dance 102.

Development of choreographic knowledge and leadership. Production of a collection of dance teaching resources; inclusion of the arts in learning environments. Designed for future classroom teachers and elementary dance specialists.

DANCE 353. Choreography II (2) 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.

DANCE 354. Choreography III (2) I

Four hours of activity.

Prerequisite: Upper division standing in dance.

Approaching dance as a fundamental means of communication. Recognizing the relationship between form and content.

**DANCE 365. University Dance Company:
Major Performance (1-2) Cr/NC 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.

DANCE 371. Dance Production II (1) Cr/NC I

Three hours of laboratory.

Prerequisite: Dance 171.

Technical experience in dance production.

**DANCE 380A. Dance History I: Ritual and Theatrical
Contexts (3)**

Prerequisite: Dance 181.

History of dance from ancient Greece to early twentieth century in a ritual and theatrical context. Political, economic, and cultural forces that have shaped dance as a social phenomenon and as an art form.

**DANCE 380B. Dance History II: Contemporary Global
Contexts (3)**

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.

DANCE 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.

DANCE 398. Dance Internship (1-3)

Prerequisite: Upper division standing and consent of dance director. Open only to dance majors and minors.

Supervised practical experience in dance studio management and instruction. Maximum credit three units.

DANCE 421. Ballet II (2) 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.)

DANCE 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.

DANCE 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.

DANCE 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.)

DANCE 481. Dance Aesthetics and Criticism (2) I

Prerequisites: Dance 380A and 380B.

Philosophy and aesthetics of dance. Historical foundations of dance criticism. Major contemporary schools of thought. Professional preparation and function of the dance critic.

DANCE 486. Dance Practicum: Folk, Square, Ballroom (2) II

Four hours of activity.

Prerequisite: Dance 285.

Teaching techniques in folk, square, and ballroom dance and practice in the use of these techniques.

DANCE 487. Dance Practicum: Modern, Ballet, Jazz (2) II

Four hours of activity.

Prerequisite: Dance 285.

Teaching techniques in modern dance, jazz dance, and ballet and practice in the use of these techniques.

DANCE 496. Experimental Topics (1-4)

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

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

Prerequisite: Consent of the dance director.

Individual study. Maximum credit six units.

Economics

In the College of Arts and Letters

OFFICE: Nasatir Hall 305
TELEPHONE: 619-594-1675
FAX: 619-594-5062

Faculty

Emeritus: Anderson, Babilot, Barckley, Boddy, Clement, Gifford, Green, Hambleton, Jencks, Kartman, Leasure, Madhavan, Nam, Popp, Poroy, Sebold, Steinberg, Stewart, Turner, Venieris

Chair: Thayer

Professors: Adler, Frantz, Gerber, Grossbard, Thayer

Associate Professor: Amuedo-Dorantes

Assistant Professors: Balsdon, Bansak, Imazeki, Puttitanun

Offered by the Department

Master of arts degree in economics.

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

Emphasis in international economics.

Emphasis in preprofessional studies.

Minor in economics.

The Major

Economics is the science which studies the production, distribution, and consumption of goods and services. Economics majors explore how producers, distributors, and consumers make their decisions. Majors also analyze the events that shape and result from these decisions. Inflation, unemployment, taxation, money and banking, efficiency, international exchange, and growth are some of the many parts of this complex system studied through the economics major at SDSU.

The Department of Economics offers two emphases which students may select to satisfy a wide range of career goals: (1) International Economics, where students can focus on worldwide economic policy and global business; and (2) Preprofessional Studies, in which students prepare for graduate study in law school, health administration, and business administration. A specialization in Quantitative Analysis is also offered which focuses on developing analytical and mathematical skills for conducting economic research. A fourth option is the comprehensive program offered in the general economics major, which provides breadth by covering areas from the emphases and specialization.

Economics majors may find employment in government, financial institutions, business, and international agencies. The combination of an economics major with a business minor provides a foundation for a variety of careers. And, students interested in studying the developing nations, the environment, government policies, or population will find that economics is a useful approach.

Many entry-level positions in business and government are available to students with a bachelor's degree in economics. A graduate may find employment as a research, statistical, data, or pricing analyst. There are management trainee positions with banks, savings and loan associations, or other lending institutions. Economics majors may also be employed as sales representatives for firms which produce both "high tech" and consumer-related goods. A student contemplating graduate study in the field of economics should consider a career as an economics consultant, or as an economist for banks, investment companies or industry.

Impacted Program

The economics major is an impacted program. To be admitted to the economics major, students must meet the following criteria:

- Complete with a grade of C or higher: Economics 101, 102; Accountancy 230; Economics 201 or Statistics 119 or 250; one course selected from Mathematics 120, 121, or 150; Information and Decision Systems 180, or Social Science 201C and two units from Social Science 201A, 201B, 201D. These courses cannot be taken for credit/no credit (Cr/NC); except for courses taught as Cr/NC only;
- Have a cumulative GPA of 2.40 or higher;
- To be admitted to the emphasis in international economics (major code 22042), students must, in addition to satisfying the criteria above, also satisfy the language requirement for the Bachelor of Arts degree in Liberal Arts and Sciences.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Advising

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

Economics Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22041)

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

A minor is not required with this major.

Graduation Survey. All majors will complete an online survey assessing their experiences in the department and educational outcomes in the major. Students answer the survey online at the Department of Economics Web page. **The survey must be completed during the student's final semester.**

Preparation for the Major. Economics 101, 102; Accountancy 230; Economics 201 or Statistics 119 or 250; one course selected from Mathematics 120, 121, or 150; Social Science 201A; Information and Decision Systems 180 or the combination of Social Science 201C and either Social Science 201B or 201D, or a computer course of at least two units. (18-20 units)

These prerequisite courses may not be taken Cr/NC; except for courses taught as Cr/NC only. The minimum grade in each class is C or higher.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units to include Economics 301, 320, 321, and 18 units of electives. At least six units of electives selected from the international group: Economics 330, 336, 360, 365, 464, 465, 489, 561, 565, 592. Maximum nine units of Economics 496 or 596; maximum three units of 499; and maximum three units of 495 may be applied to the major. Units of 495, 496, 499, 596 may be counted towards the international group requirement as approved by adviser.

Emphasis in International Economics (Major Code: 22042)

Graduation Survey. All majors will complete an online survey assessing their experiences in the department and educational outcomes in the major. Students answer the survey online at the Department of Economics Web page. **The survey must be completed during the student's final semester.**

Preparation for the Major. Economics 101, 102; Accountancy 230; Economics 201 or Statistics 119 or 250; one course selected from Mathematics 120, 121, or 150; Social Science 201A; Information and Decision Systems 180 or the combination of Social Science 201C and either Social Science 201B or 201D, or a computer course of at least two units. (18-20 units)

These prerequisite courses may not be taken Cr/NC; except for courses taught as Cr/NC only. The minimum grade in each class is C or higher.

Language Requirement. Successful completion of a course in a foreign language at the fourth semester or higher level, that is, one course beyond the B.A. language requirement. Students who have graduated from high school in another country where the language of instruction is not English have met the language requirement for this major.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Study/Internship Abroad Requirement. Completion of a study abroad or internship abroad of at least 12 units of coursework or six units of the internship course in another nation. Students may also choose to complete a combination of nine units of study and three units of the internship abroad. Students who have graduated from high school outside the U.S. meet this requirement by studying at SDSU.

Major. A minimum of 33 upper division units (27 units in economics and six to seven units from the College of Business Administration) to include Economics 301, 320, 321.

A. At least 12 units of electives must be selected from the international group: Economics 330, 336, 360, 365, 464, 465, 489, 561, 565, 592.

B. Up to six units of electives may be selected from Economics 311, 338, 380, 382, 401, 406, 422, 441, 452, 453, 454, 458, 489, 490.

Six to seven units selected from Finance 323 and 329, or Management 350 and 357, or Marketing 370 and 376.

Maximum nine units of Economics 496 or 596 and maximum three units of 499 may be substituted into A or B as appropriate with approval of adviser except for Economics 360, 561, or 592. Maximum three units of 495 may be substituted into A with appropriate international content as approved by adviser.

Emphasis in Preprofessional Studies (Major Code: 22041)

Graduation Survey. All majors will complete an online survey assessing their experiences in the department and educational outcomes in the major. Students answer the survey online at the Department of Economics Web page. **The survey must be completed during the student's final semester.**

Preparation for the Major. Economics 101, 102; Accountancy 230; Economics 201 or Statistics 119 or 250; one course selected from Mathematics 120, 121, or 150; Social Science 201A; Information and Decision Systems 180 or the combination of Social Science 201C and either Social Science 201B or 201D, or a computer course of at least two units; Communication 160. (21-23 units)

These prerequisite courses may not be taken Cr/NC; except for courses taught as Cr/NC only. The minimum grade in each class is C or higher.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. English 508W or 584W, or Linguistics 305W, or Rhetoric and Writing Studies 500W or 503W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units in economics to include Economics 301, 320, 321, Finance 323, and 18 units of electives in economics.

A. At least 12 units selected from the preprofessional group: Economics 311, 338, 380, 382, 401, 406, 422, 441, 452, 453, 454, 458, 490.

B. At least three units of electives selected from the international group: Economics 330, 336, 360, 365, 464, 465, 489, 561, 565, 592.

Maximum nine units of Economics 496 or 596 may be substituted as upper division elective with approval of adviser. Maximum three units of 495 and maximum three units of 499 may be substituted into A with appropriate preprofessional content as approved by adviser.

Specialization in Quantitative Analysis

Graduation Survey. All majors will complete an online survey assessing their experiences in the department and educational outcomes in the major. Students answer the survey online at the Department of Economics Web page. **The survey must be completed during the student's final semester.**

Preparation for the Major. Economics 101, 102, and either Economics 201 or Statistics 119 or 250; Accountancy 230; Mathematics 150; Social Science 201A; Information and Decision Systems 180 or the combination of Social Science 201C and either Social Science 201B or 201D, or a computer course of at least two units. (19-20 units)

These prerequisite courses may not be taken Cr/NC; except for courses taught as Cr/NC only. The minimum grade in each class is C or higher.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units in economics to include Economics 301, 320, 321, 441, 507, and 12 units of upper division economics electives, with at least six units at the 400 or 500 level. Maximum nine units of Economics 496 or 596 may be substituted as upper division elective with approval of adviser. Maximum three units of 495 and maximum three units of 499 may be substituted as upper division elective with appropriate quantitative content as approved by adviser.

Economics Minor

The minor in economics consists of a minimum of 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)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

ECON 100. Contemporary Economic Problems (3)

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.

ECON 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.

ECON 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.

ECON 201. Statistical Methods (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.

ECON 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

ECON 301. Collection and Use of Data in Economics (3)

Prerequisites: Economics 101 and 102; Economics 201 or Statistics 119; and Information and Decision Systems 180 or Social Science 201C.

Economic data gathering via Internet and other sources, data entry into spreadsheets and graphing techniques, statistics using spreadsheets, and introduction to basic regression.

ECON 311. History of Economic Thought (3)

Prerequisites: Economics 101 and 102.

The development of economics. Contributions of schools of thought and individual writers are examined with regard to their influence on economic theory and policy.

ECON 320. Intermediate Macroeconomic Theory (3) I, II

Prerequisite: Economics 101 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.

ECON 321. Intermediate Microeconomic Theory (3) I, II

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.

ECON 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 state-controlled market economies with a focus on nations of Asia, Europe and Latin America; Soviet-style economic planning and transition to a market economy.

ECON 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.

ECON 338. Economic History of the United States (3)

Prerequisite: Six units of economics to include Economics 101.

American economic development and national legislation. Studies of agriculture, industry, the labor force, and national output.

ECON 360. International Economic Problems (3)

Prerequisites: Economics 101 and 102.

International problems, economic communities, organizations, and other selected topics.

ECON 365. Economics of Underdeveloped Areas (3)

Prerequisite: Six units of economics to include Economics 101.

The nature and causes of economic underdevelopment. Problems of and policies for the economic development of underdeveloped areas of the world.

ECON 380. Labor Economics (3)

Prerequisite: Six units of economics to include Economics 102.

Labor force and mobility, human capital, labor demand, discrimination, determination of compensation and employment, productivity, impact of labor organizations, labor disputes, and social legislation.

ECON 382. Economics of Work, Marriage, and Family (3)

Prerequisite: Economics 102.

Economic analysis of marriage and labor supply; family-related changes in work behavior; gender differences in occupations and earnings; welfare, work and family policies in the U.S. and internationally; macroeconomic analysis of household structure and economy.

ECON 401. Public Finance (3)

Prerequisites: Economics 101 and 102.

Principles and practices of taxation and public expenditures. Economic effects of public spending, debts and taxation. Financing social security and other services. Fiscal policy and prosperity. Relation to inflation and deflation. Special emphasis on social problems involved.

ECON 406. Economics of Sports (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.

ECON 422. Business Cycles (3)

Prerequisites: Economics 101 and 102.

Fundamental factors in economic fluctuations. Examination of business cycle theories, and various policy proposals for economic stabilization. A consideration of current economic conditions and an examination of methods employed in preparing national economic forecasts.

ECON 441. Introduction to Econometrics (3)

Prerequisites: Economics 301; Mathematics 120 or 121 or 150; Recommended: Economics 320 or 321.

Econometric techniques with emphasis on single-equation models. Applied skills learned through computer assignments.

ECON 452. Economics of Energy Resources (3)

Prerequisite: Six units of economics.

Economic structure of energy supply in the United States: electric power, fossil fuels, nuclear energy. Economic potential of alternative energy sources. Public policy issues: oil imports and self-sufficiency; energy costs, conservation, and curtailment; energy growth and its environmental impact.

ECON 453. Environmental and Natural Resource Economics (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.

ECON 454. Economics of the Ocean (3)

Prerequisites: Economics 101 and 102.

Economic analysis of fisheries, seabed resources, shipping lanes, allocation of the coastal zone, and ocean pollution. Economic implications of alternative legal arrangements concerning the ocean.

ECON 458. Urban Economics (3)

Prerequisites: Economics 101 and 102.

Major influences on economic conditions of urban areas; specific urban issues including growth and housing. Discussion of San Diego issues.

ECON 464. Economic Problems of Latin America (3)

Prerequisites: Six units of economics to include Economics 101; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. General Education prerequisite not required for Economics majors.

Economic development, institutions, and problems of Latin America in the context of a global economy.

ECON 465. Economic Problems of South and East Asia (3)

Prerequisites: Six units of economics to include Economics 101; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. General Education prerequisite not required for Economics majors.

Economic development, institutions, and problems of China, India, and other developing countries in the region.

ECON 489. Economics and Population (3)

Prerequisites: Six units of economics to include Economics 102; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences. General Education prerequisite not required for Economics majors.

Relation of fertility, marriage, migration, and other dimensions of population to various economic factors affecting household behavior. Demographic measures and projections, application to product markets and to policies of developed and less developed countries.

ECON 490. Money and Banking (3) I, II

Prerequisites: Economics 101, 102, and Accountancy 230.

Money's measurement and use; monetary theory and policy; returns on financial instruments; international payments and foreign exchange; evolution of banking institutions, and global competition.

ECON 495. Economics Internship (3) Cr/NC/RP I, II, S

Prerequisite: Consent of instructor.

Internship with business firms, nonprofit organizations and government agencies. Work done under joint direction of activity supervisor and instructor. Project report and internship conferences required. Maximum credit six units.

ECON 496. Experimental Topics (1-3)

Prerequisite: Consent of instructor.

Selected topics in economics. May be repeated with approval of the instructor. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit nine units.

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

Prerequisite: Consent of instructor.

Individual study. May be repeated for a maximum of six units. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

ECON 507. Mathematical Economics (3)

Prerequisite: Mathematics 121 or 150. Recommended: Economics 320 or 321.

Mathematical concepts as tools in understanding, developing, and illustrating economic theories. Applications of calculus and linear equations to constrained optimization, macro models, elasticity, general equilibrium, and input-output analysis.

ECON 561. International Trade (3)

Prerequisites: Economics 320 and 321.

Theory and policy of international trade with examples drawn from current issues. Models of determinants of trade. Free trade and protectionism. Trade and economic development. Trading blocs, the European community, GATT and U.S. trade policy.

ECON 565. North American Economic Relations (3)

Prerequisites: Economics 101 and 102. Recommended: Economics 360.

Socioeconomic development of U.S., Mexico, and Canada since World War II. Issues affecting the three countries' relations, including trade investment, technology, and international organizations and agreements.

ECON 592. International Monetary Theory and Policy (3)

Prerequisite: Economics 320 or 490.

International monetary spillovers from domestic macroeconomic policies. Foreign exchange markets and balance of payments. Fixed, flexible and managed exchange rates. Bretton Woods, international monetary fund, and world debt crisis.

ECON 596. Experimental Topics (3)

Prerequisite: Consent of instructor.

Intensive study in specific areas of economics. Topics to be announced in the *Class Schedule*. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of nine units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

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

OFFICE: Business Administration 346
TELEPHONE: 619-594-6091
FAX: 619-594-7082

Education

In the College of Education

Accredited by the California Commission on Teacher Credentialing and the National Council for Accreditation of Teacher Education.

Faculty

Faculty assigned to teach in education are drawn from departments in the College of Education.

Courses (ED)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

ED 200. Teaching as a Profession (3)

Current issues, challenges in education; explores strategies that promote professional development. Critically assesses issues related to teaching in culturally and linguistically diverse school settings. Includes guided classroom observations.

ED 201. Introduction to Literacy (3)

Two lectures and four hours of laboratory.

Intended for students in the liberal studies blended program for K-3 literacy 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.)

UPPER DIVISION COURSES (Intended for Undergraduates)

ED 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.

ED 451. Introduction to Multicultural Education (3)

Overview of cultural pluralism in education, industry, business, other institutions, and society at large.

UPPER DIVISION COURSE (Also Acceptable for Advanced Degrees)

ED 516. Foundations of Bilingual Education (1)

Prerequisite: Credit or concurrent registration in Education 451.

Overview of models of bilingual education programs for language minority students.

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



Educational Leadership

In the College of Education

OFFICE: North Education 166
TELEPHONE: 619-594-4063
E-MAIL: candrade@mail.sdsu.edu
<http://edweb.sdsu.edu/edleader/>

Accredited by the California Commission on Teacher Credentialing.

Faculty

Emeritus: Downey, Frase, Latta, Lienert, Merino, Streshly, Warburton, Wetherill, Yerkes

Chair: Basom

Professors: Meno, Pumpian

Associate Professor: Basom

Offered by the Department

Doctor of Education degree in educational leadership.

Master of Arts degree in education.

Concentration in educational leadership.

Administrative services credentials.

Courses (EDL)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES (Intended for Undergraduates)

EDL 496. Experimental Topics (1-4)

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

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

Prerequisite: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.

Individual study. Maximum credit six units.

UPPER DIVISION COURSE (Also Acceptable for Advanced Degrees)

EDL 596. Topics in Educational Leadership (1-3)

Selected problems in educational leadership. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

“Character cannot be developed
in ease and quiet. Only through
experience of trial and suffering
can the soul be strengthened,
ambition inspired, and success
achieved.”

—Helen Keller

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

Educational Technology

OFFICE: North Education 280

TELEPHONE: 619-594-6718

FAX: 619-594-6376

<http://edtec.sdsu.edu>

In the College of Education

Accredited by the California Commission on Teacher Credentialing.

Faculty

Emeritus: Anthony, Harrison, McAllister

Chair: Bober

Professors: Allen, Dodge, Ritchie, Rossett, Saba

Associate Professors: Bober, Hoffman

Assistant Professors: Marx (IVC), Molebash, Wang

Offered by the Department

Doctor of Education degree in educational technology.

Master of Arts degree in education.

Concentration in educational technology.

Specialization in educational computing.

Specialization in workforce education and lifelong learning.

Minor in educational technology.

Certificate in distance education (refer to *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 540, 541, 544, 550, 561, 570, 572, and 596 (when applicable).

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable or as prerequisites for the master's degree in educational technology. A minimum of six upper division units must be completed in residence at San Diego State University.

Instructional Technology Certificate

To receive a certificate in instructional technology, candidates must meet departmental admission requirements which include relevant work experience or academic preparation, letters of recommendation, and must complete the following 15 units of coursework: Educational Technology 540, 541, 544, and six units selected from Educational Technology 550, 561, 570, 572, or 596.

With the approval of the department, a student may apply no more than three units of coursework from the certificate program toward a minor.

Courses (EDTEC)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

EDTEC 220. Learning, Technology, and Society (3)

Problem-solving at the intersection of three fundamentally human enterprises: learning, technology, and social institutions. Identifying needs, generating possible solutions in the following domains: elearning, edutainment, formal and informal learning. Projections and visions of future developments to enhance learning.

EDTEC 270A. Technologies for Teaching I (Blended) (1)

One and one-half hours of lecture and three hours of activity per week for five weeks.

Prerequisite: Admission to liberal studies program.

Introduction to the application of technology to teaching. Meets part of computer literacy requirement for Level I teaching credential.

EDTEC 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.

EDTEC 296. Experimental Topics (1-3) I, II

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

UPPER DIVISION COURSES (Intended for Undergraduates)

EDTEC 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.

EDTEC 470. Technologies for Teaching (1-3) I, II, S

One unit: One-half hour of lecture and one hour of activity.

Two units: One hour of lecture and two hours of activity.

Three units: One and one-half hours of lecture and three hours of activity.

Application of computer and video technologies to practice of teaching. Meets computer literacy requirement for Level I teaching credential.

EDTEC 496. Experimental Topics (1-4)

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

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

Prerequisite: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

EDTEC 532. Production of Instructional Materials (3) I

Six hours of activity.

Instructional media production for professionals in organizational settings such as hospitals, law offices, accounting firms, publishing companies. Use of web pages, video, presentation software, and data analysis tools for training. Not open to students in educational technology degree and certificate programs or to students with credit in Educational Technology 541.

EDTEC 540. Educational Technology (3) I, II, S

Six hours of activity.

Rationale, foundations, theories, careers, trends, and issues in educational technology. Implications of educational technology for instruction and information in schools, government, and corporations.

EDTEC 541. Web-Based Multimedia Development (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.

EDTEC 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 503W with a grade of B+ or better.

Systematic design of products for education and training. Use of cognitive task analysis to determine instructional content. Development of instructional goals and product specifications. Rapid prototyping of instructional products.

EDTEC 550. Introduction to Distance Education (3) II

Two lectures and three hours of laboratory.

Prerequisites: Educational Technology 540, 541, 544, or equivalent experience in the field.

Terminology, concepts, instructional strategies, and technologies of distance education. Designing, facilitating, and managing courses at a distance. Overview of social issues, historical perspectives, and current trends. Analyzing distant learner profiles, needs, and skills. Telecommunicating, instructing, interacting, and providing feedback.

EDTEC 561. Advanced Web-Based Multimedia Development (3) I, II, S

Six hours of activity.

Prerequisites: Educational Technology 540 and 541.

Two- and three-dimensional graphics, visualization, animation, digital video, sound, and virtual reality techniques. Research-based guidelines, design languages applied to development of interactive web-based learning systems.

EDTEC 570. Advanced Teaching with Technologies (3) S

Prerequisite: Educational Technology 470 or equivalent work experience.

Design of constructivist lessons and units using Internet resources. Use of visual organizing tools and databases for instruction and assessment. Tools for professional knowledge base organization and electronic portfolios.

EDTEC 572. Technology for Course Delivery (3) I, II, S

One lecture and six hours of laboratory.

Prerequisites: Educational Technology 540 and 541.

Use of technology to support planning, presenting and managing instructor-led courses.

EDTEC 596. Topics in Educational Technology (1-3) I

Selected 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

E-MAIL: 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, Chang, Iosupovici, Lin, Lodge, Mann, Massey, Panos, Skaar, Stuart, Thyagarajan, Wilson

Chair: Tummala

Professors: Gupta, Harris, f., Harris, J., Kolen, Lee, G., Lee, L., Marino, Szeto, Tummala

Associate Professors: Betancourt, Ozturk

Assistant Professors: Chandramani, Seshagiri, Zhang

Adjunct: Waheed

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 and IV combined (Foundations and Explorations), nor more than 10 units from one department in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).

I. Communication and Critical Thinking: 9 units

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

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)

II. Foundations: 29 units

A. Natural Sciences and Quantitative Reasoning (17 units):

1. Physical Sciences (11 units)
Engineering students will take Chemistry 200 which includes a laboratory (5 units).
Physics 195 (3 units)
Physics 196 (3 units)
2. Life Sciences (3 units)
3. Laboratory (satisfied under A.1. above)
4. Mathematics/Quantitative Reasoning
Engineering students will take Mathematics 150, 3 units applicable to General Education. You may **not** use Credit/No Credit grades.

B. Social and Behavioral Sciences (3 units)

C. Humanities (9 units)

Complete three courses in three different areas. One of these courses and the one under IV.A. below must be taken in the same department.

III. American Institutions: Three units of the six units of coursework which meet the American Institutions graduation requirement may be used in General Education, excluding courses numbered 500 and above.

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

Total: 9 units; must include one course of cultural diversity.

A. Upper division Humanities (3 units)

Three units must be taken from the same department as one of the Humanities courses selected in Foundations.

B. Upper division Humanities (3 units from a department not selected in A above.)

C. Upper division Social and Behavioral Sciences (3 units)

After enrollment in electrical engineering at SDSU, an Electrical Engineering major must take all upper division electrical engineering courses at SDSU unless prior approval is obtained from the department.

The Major

The field of Electrical Engineering involves three major activities: the generation and distribution of electric power; the collection, processing and communication of information; and the study and application of electromagnetic phenomena and materials.

The electric power industry is the oldest area of Electrical Engineering, but it remains an active area of innovation and development, as well as a major employer. Activities in the power area include the design of machines for energy conversion (motors and generators); the design of DC power supplies and other electronic circuits for the efficient delivery of electric power from various sources (e.g., solar cells, batteries, AC generators); and the design and operation of systems for the distribution of electric power, including the power grid that cover the United States with links to grids of other countries.

The most dynamic area of Electrical Engineering today is the processing and communication of information. Activities in this area include the design of machines that store, process and display information; and the design of systems for communicating information (e.g., radios, telephones, fax machines, cellular phones, computer networks, the world wide web, satellite communication systems, cable television systems, etc.). Also included in this area are consumer electronics and instrumentation for applications of all sorts (e.g., medical equipment, industrial process control, machine control, bio-engineering, traffic control, radar, sonar, speech analysis and synthesis, music, etc.).

The study of electromagnetic phenomena and materials provides the foundation for all of Electrical Engineering. Research and development at this level typically leads to new developments and improvements in other areas. Major activities today include the study of energy conversion processes, fabrication processes, imaging techniques, information storage mechanisms, environmental processes, and optoelectronics (e.g., lasers, optical fibers, optical computing).

The Bachelor of Science degree program includes a core of courses that provides an introduction to each of the major areas described above. In addition, nearly a full year of professional electives provides the opportunity for students to specialize in areas of particular interest. The process of engineering design is emphasized throughout the curriculum by including open-ended problems with realistic design constraints. The design experience culminates in a capstone design course required of all students. Creativity, consideration of economic and social factors, and the application of systematic design procedures are used to solve problems that confront engineers. The curriculum attempts to achieve a balance between theory and practice that will prepare graduates both for immediate employment and for continued study. The Master of Science program offers graduates in electrical engineering and related fields the opportunity for continued study and further specialization.

Employment opportunities within the electrical engineering profession are challenging and usually plentiful. Electrical engineering graduates are sought by a wide range of employers in government and industry for many different types of work including design, testing, production, maintenance, system operation, programming, customer support engineering, and technical marketing and sales. Graduates have the opportunity to contribute to society by helping to design and supply the high-quality products and services that are necessary for a robust economy.

Educational Objectives

The overall objective of the undergraduate program in electrical engineering is to produce the best skilled, hands on practicing electrical engineer. More specifically the objectives are:

- A. To provide students with the technical knowledge and skills that will enable them to have a successful career in the electrical engineering profession;
- B. To provide students with a general education that will enable them to appreciate the social, ethical, economic, and environmental dimensions of problems they may face;
- C. To develop in students the communication skills and social skills that are necessary to work effectively with others;
- D. To develop the ability of students to solve problems by learning what is already known, and then applying logic and creativity to find a solution;
- E. To provide students with the intellectual skills necessary to continue learning and to stay current with the profession as it changes.

ELECTRICAL ENGINEERING MAJOR FRESHMAN YEAR

<i>Fall Semester</i>	<i>Units</i>	<i>Spring Semester</i>	<i>Units</i>
Chemistry 200, General Chemistry	5	COMPE 160, Intro. to Computer Prog.	3
Mathematics 150, Calculus I	4	Mathematics 151, Calculus II	4
General Education	6	Physics 195, Principles of Physics	3
		General Education	6
	15		16

SOPHOMORE YEAR

<i>Fall Semester</i>	<i>Units</i>	<i>Spring Semester</i>	<i>Units</i>
EM 202, Mechanics for Engineers	3	EE 210, Circuit Analysis I	3
COMPE 270, Digital Systems	3	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

<i>Fall Semester</i>	<i>Units</i>	<i>Spring Semester</i>	<i>Units</i>
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 Electronic Circuits	3
General Education	3	General Education	6
	16		18

SENIOR YEAR

<i>Fall Semester</i>	<i>Units</i>	<i>Spring Semester</i>	<i>Units</i>
EE Laboratory Elective	1	EE Laboratory Electives	1
EE 434, Elec. Mats. and Devices	3	Professional Electives	9
Professional Electives	6	American Institutions	3
American Institutions	3	EE 490, Senior Design Project	4
General Education	3		
	16		17

Electrical Engineering Major

With the B.S. Degree (Major Code: 09091)

The program below describes the 130 units required for the degree. Each course specifically listed in the program is required. In addition, the total number of units specified in each elective category represents a minimum requirement. These are General Education, American Institutions, Upper Division Engineering Elective, Professional Electives, 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. (42 units, 14 units of which count toward General Education credit.)

General Education. Engineering students must follow the specific General Education program outlined on the previous page. Other General Education requirements and limitations, as well as listings of specific General Education course electives are presented in Section IX of Graduation Requirements for the Bachelor's Degree. (Fifty units, including 14 units from preparation for the major which count toward General Education credit, and 3 units of American institutions which count toward General Education credit.)

American Institutions. Three units of the six units of coursework which meet the American Institutions graduation requirement may be used in General Education, excluding courses numbered 500 and above.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

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, 434, 490. General engineering electives: Three units selected from Civil Engineering 301 or Engineering Mechanics 340 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: Two units selected from any non-required upper division electrical engineering laboratory courses.

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 (E E)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

NOTE: Prerequisites will be enforced in all undergraduate electrical engineering courses numbered 100 through 599. A copy of an official transcript will be accepted as proof. For corequisites, an enrollment confirmation form will be accepted.

Any course at the 300 level or below must be passed with a grade of C- or better in order to be used as a prerequisite for any subsequent course.

LOWER DIVISION COURSES

E E 203. Principles of Electrical Engineering (3) I, II

Prerequisites: Mathematics 151 and Physics 196.

Direct and alternating current analysis, phasor diagrams, single-phase and three-phase power, diodes, transistors, integrated circuits, transformers, motors, and generators. Not acceptable for electrical, aerospace, or civil engineering majors.

E E 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.

E E 210. Circuit Analysis I (3) I, II (CAN ENGR 12)

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)

E E 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 computer-aided engineering tools.

E E 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.

E E 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.

E E 330. Fundamentals of Engineering Electronics (3) I, II

Prerequisite: Electrical Engineering 210.

Application of diodes, JFETs, MOSFETs, and BJTs in typical electronic circuits. Analysis and design of rectifiers, filters, and simple amplifiers using transistors and operational amplifiers.

E E 330L. Engineering Electronics Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Electrical Engineering 330.

Experimental study of laboratory instruments, diodes, rectifier circuits, filters, transistors, and operational amplifiers.

E E 340. Electric and Magnetic Fields (3) I, II

Prerequisites: Electrical Engineering 210 and Engineering 280.

Electrostatic and magnetostatic field theory using vector notation; Coulomb's Law, Gauss' Law and potential theory. Solutions to Poisson's and Laplace's equations; capacitance and inductance. Time-varying fields; Maxwell's equations.

E E 380. Electrical Energy Conversion (3) I, II

Prerequisite: Electrical Engineering 210.

Magnetic circuits, transformers and polyphase AC networks. Fundamentals of electro-mechanical energy conversion; induction motors, synchronous machines and DC machines.

E E 380L. Electrical Energy Conversion Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Electrical Engineering 380.

Experimental study of DC, single and polyphase AC circuits, transformers, and machines.

E E 397. Discussion: Electrical Engineering (1) Cr/NC

Prerequisite: Concurrent registration in associated course.

Discussion and examples of problem-solving techniques in subject area. Weekly writing assignments summarizing material covered in lecture and identifying troublesome topics. Not applicable to a bachelor's degree.

E E 410. Signals and Systems (3) I, II

Prerequisites: Electrical Engineering 300 and 310.

Linear time-invariant systems, Fourier analysis, continuous and discrete signals and systems, filtering, sampling, and Z-transform techniques.

E E 430. Analysis and Design of Electronic Circuits (3) I, II

Prerequisites: Electrical Engineering 310, 330, and Engineering 280.

Single and multiple transistor amplifiers, power stages. Frequency response, feedback, stability, and operational amplifier circuits.

E E 430L. Electronic Circuits Laboratory (1) I, II

Three hours of laboratory.

Prerequisites: Electrical Engineering 330L and 430.

Transistor dynamic characteristics; single stage and multistage amplifier circuits including feedback, tuned amplifiers, voltage regulators, active filters, and A/D-D/A converters.

E E 434. Electronic Materials and Devices (3) I, II

Prerequisites: Electrical Engineering 330 and 340.

Crystal properties and growth of semiconductors, quantum mechanics of solids, shot noise and thermal noise, energy band and charge carriers, excess carrier in semiconductors, p-n junctions, solar cells, tunnel diodes, photodetectors.

E E 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.

E E 450. Transmission Lines for High Speed Electronics and Microwaves (3)

Prerequisites: Electrical Engineering 330 and 340.

Theory and applications of transmission lines. Transmission-line equations and four transmission-line parameters, pulses on transmission lines, and impedance matching techniques, scattering matrix, microstrip line, coplanar waveguides, and various microwave transmission line components.

E E 458. Analog and Pulse Communication Systems (3)

Prerequisite: Electrical Engineering 410.

Analog and digital communication systems. Amplitude and frequency modulation, pulse modulation, and PCM. Introduction to information theory.

E E 483. Power Distribution Systems (3) 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.

E E 484. Power Electronics (3)

Prerequisites: Electrical Engineering 380 and concurrent registration in Electrical Engineering 430.

Design and analysis of power electronic devices. Power semiconductor switches, switch-mode power supplies, dc-to-ac inverters, PM and PWM ac-to-ac converters. Power electronics applications. (Formerly numbered Electrical Engineering 583.)

E E 490. Senior Design Project (4) I, II

Two lectures and six hours of laboratory.

Prerequisites: Electrical Engineering 330L, 410, 430, 434.

Supervised capstone design projects to provide integrative design experience for seniors to include ethics, professionalism, cost-effectiveness, and project management.

E E 496. Advanced Electrical Engineering Topics (1-3)

Prerequisite: Consent of instructor.

Modern developments in electrical engineering. See *Class Schedule* for specific content. Maximum credit nine units for any combination of Electrical Engineering 496 and 596 applicable to a bachelor's degree.

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

Prerequisite: Approval of project adviser and department chair.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

E E 502. Electronic Devices for Rehabilitation (3)

Two lectures and three hours of laboratory.

Prerequisite: Electrical Engineering 303 or 330.

Recent developments in electronic assistive devices and microcomputers for persons with various disabilities; assessment of disabled persons for suitable technological assistive devices.

E E 503. Biomedical Instrumentation (3)

Prerequisites: Engineering 280; Electrical Engineering 410 and 430 (or for Mechanical Engineering majors, Electrical Engineering 303 and Mechanical Engineering 312).

Instrumentation systems to monitor, image, control, and record physiological functions.

E E 520. Feedback Control Systems (3) I

Prerequisite: Electrical Engineering 410.

Analysis of control 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.

E E 530. Analog Integrated Circuit Design (3)

Prerequisite: Electrical Engineering 430 with minimum grade of C-.

Advanced treatment of transistor pairs, device mismatches, differential amplifiers, current mirrors, active loads, level shifting, and output stages. Parasitic and distributed device parameters. Economics of IC fabrication and impact on design.

E E 534. Solid-State Devices (3)

Prerequisite: Electrical Engineering 434.

Conduction theory of solids. Characteristics of tunnel, backward, breakdown, multilayer and varactor diodes; silicon controlled rectifiers and switches, unijunction transistors, hot electron devices. Lasers and laser applications.

E E 539. Instrumentation Circuits I (3)

Prerequisite: Electrical Engineering 430.

Design and analysis of hybrid analog/digital electronic sub-systems incorporated into modern instrument design. Emphasis on operational amplifier based circuit design and analog-to-digital and digital-to-analog conversion processes.

E E 540. Microwave Devices and Systems (3)

Prerequisite: Electrical Engineering 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.

E E 540L. Microwave Design and Measurements Laboratory (1)

Three hours of laboratory.

Prerequisites: Credit or concurrent registration in Electrical Engineering 430L and 540.

Designs, computer simulations, fabrications, and testings of microwave matching networks, couplers, filters, and amplifiers.

E E 541. Electro-Optics (3) 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.

E E 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.

E E 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.

E E 556. Digital Signal Processing (3)

Prerequisite: Electrical Engineering 410 or Physics 516.

Digital signal processing. Discrete-time signals, transform techniques, and digital filters. Design of FIR and IIR filters, FFTs, and finite length effects on digital systems.

E E 558. Digital Communications (3) II

Prerequisite: Electrical Engineering 410.

Performance of analog and digital communication systems. Effects of noise and spectral characteristics.

E E 558L. Communications and Digital Signal Processing Laboratory (1)

Prerequisite: Credit or concurrent registration in Electrical Engineering 556 or 558.

Experiments in modulation techniques, effects of noise on system performance, digital filters, and signal processing.

E E 580. 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.

E E 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.

E E 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.

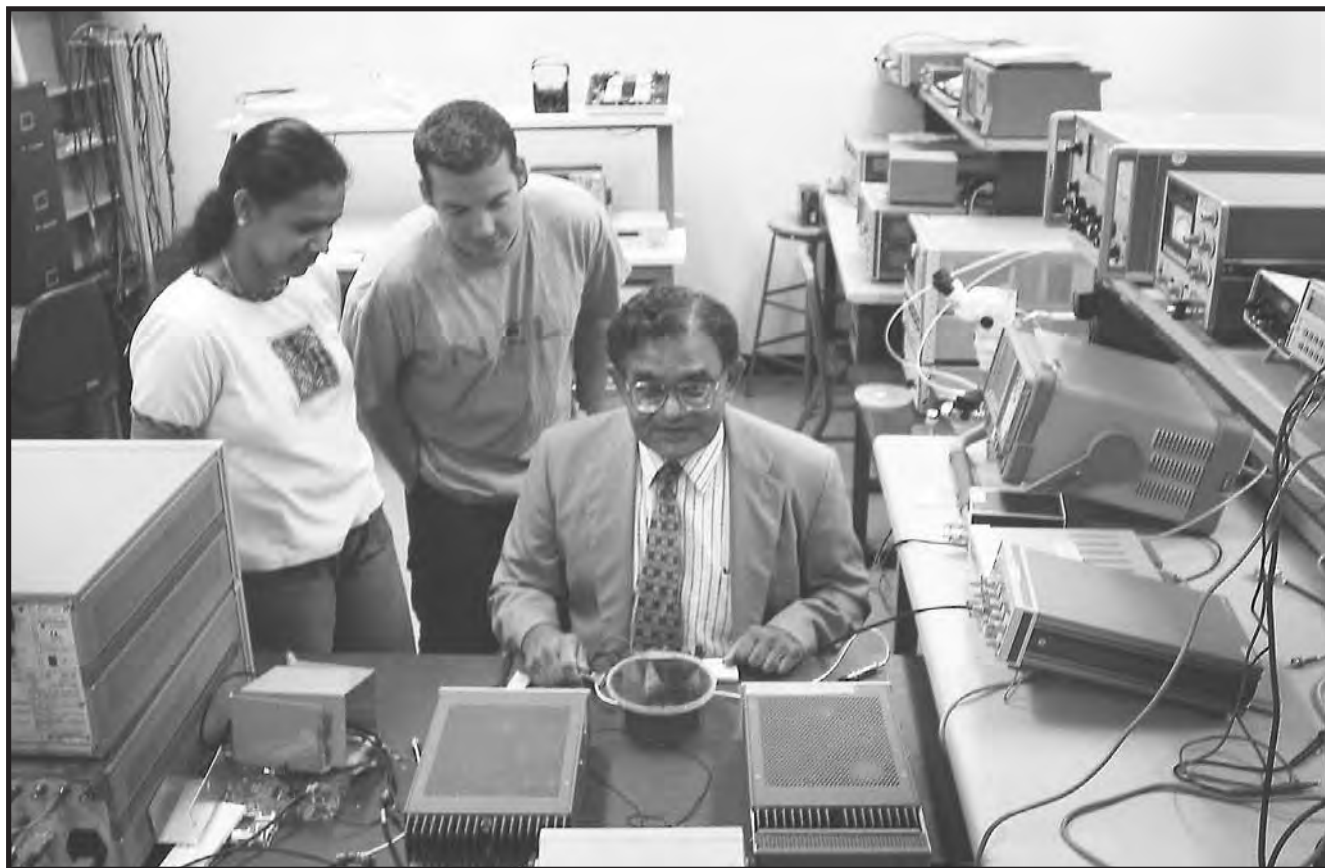
E E 596. Advanced Electrical Engineering Topics (1-3) I, II

Prerequisite: Consent of instructor.

Modern developments in electrical engineering. See *Class Schedule* for specific content. Maximum credit of nine units for any combination of Electrical Engineering 496 and 596 applicable to a bachelor's degree. Maximum 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*.



Engineering

In the College of Engineering

OFFICE: Engineering 203
TELEPHONE: 619-594-6061
E-MAIL: info@engineering.sdsu.edu

The College of Engineering undergraduate programs in aerospace, civil, computer, electrical, environmental, and mechanical engineering are accredited by the 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)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

ENGR 280. Methods of Analysis (3) I, II

Prerequisite: Mathematics 151 with minimum grade of C. Recommended: Mathematics 252.

Selected topics from ordinary differential equations, the Laplace transform, Fourier series, and linear algebra, with engineering applications.

ENGR 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

ENGR 430. Principles of Engineering Economy (3) I, II

Prerequisite: Mathematics 252.

Application of the mathematics of finance to engineering and managerial decision making.

ENGR 496. Advanced Engineering Topics (1-3) I, II

Prerequisite: Minimum grade point average of 2.0 in engineering.

Modern developments in engineering. See *Class Schedule* for specific content. Maximum credit six units for any combination of 496, 499, and 596 applicable to a bachelor's degree.

“Integrity without knowledge
is weak and useless, and
knowledge without integrity
is dangerous and dreadful.”

—Samuel Johnson

UPPER DIVISION COURSE

(Also Acceptable for Advanced Degrees)

ENGR 510. Methods of Analysis (3)

Prerequisite: Engineering 280 with minimum grade of C.

Selected topics from vector calculus, partial differential equations, and complex analysis, with engineering applications.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.

English

In the College of Arts and Letters

OFFICE: Adams Humanities 4158

TELEPHONE: 619-594-5443

FAX: 619-594-4998

E-MAIL: EandCL@mail.sdsu.edu

<http://literature.sdsu.edu>

Faculty

Emeritus: Adams, Baker, Benson, Boe, Brashear, Brown, Bumpus, Butler, Chater, Davis, Farber, Gross, Ingham, Kehler, Kohler, Kuznets, McCaffery, McLeod, Monteverde, Moramarco, Nelson, Neumeyer, O'Reilly, Redding, M., Redding, R., Rogers, Rother, Santangelo, Savvas, Scott, Sheres, Shojai, Stiehl, Sullivan, Tozer, Vanderbilt, Wall, Wheeler, Widmer

Chair: Little

Professors: Alcosser, Allison, Amtower, Chin, Edson, Gervais,

Gregory, Griswold, Herman, Hicks, Jaffe, Koolish, Little, Polkinhorn

Associate Professors: Colquitt, Cummins-Lewis, Matlin, Neruccio

Assistant Professors: Borgstrom, Joshi

Offered by the Department of English and Comparative Literature

Master of Arts degree in English.

Master of Fine Arts degree in creative writing.

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

Major in English in preparation for the single subject teaching credential in English language arts.

English honors.

Minor in English.

Certificate in children's 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 Pre-Professional Major," shows that training in English and literature is valuable preparation for futures in law, medicine, business, and federal service.

The SDSU Placement Office has found that liberal arts graduates in general have profited both in terms of job availability and compensation in the shift from manufacturing to service in the United States economy.

English Major Honors

(Standard Major)

The English honors program offers excellent students a variation of the major designed to engage them in work commensurate with their abilities. Honors students in the standard English major will take two additional upper division courses appropriate for their field of interest, in which they must maintain an A- grade point average, and successfully complete an Honors Thesis (English 499 or Comparative Literature 499). Generally, students will apply to this program in their junior year after they have completed at least nine units of lower division preparation for the major and nine units of upper division major requirements with an A- (3.7 GPA) and overall 3.5 GPA. Applicants must also submit an appropriate sample of their critical or creative work. Successful completion of the English honors program will be recognized at graduation.

English Major Honors

In preparation for the Single Subject Teaching Credential in English Language Arts

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

The English major in preparation for the single subject teaching credential in English language arts has been submitted to the California Commission on Teacher Credentialing for approval.

Contact the department for additional information.

The English honors program offers excellent students a variation of the major designed to engage them in work commensurate with their abilities. Honors students in the English major in preparation for the Single Subject Teaching Credential in English Language Arts will convert nine of the twelve units of electives into two honors courses, in which they must maintain an A- grade point average, and successfully complete an Honors Thesis (English 499 or Comparative Literature 499). Generally, students will apply to this program in their junior year after they have completed at least nine units of lower division preparation for the major and nine units of upper division major requirements with an A- (3.7 GPA) and overall 3.5 GPA. Applicants must also submit an appropriate sample of their critical or creative work. Successful completion of the English honors program will be recognized at graduation.

Impacted Programs

The majors in English and English in Preparation for the Single Subject Teaching Credential in English Language Arts are impacted programs. To be admitted to the major in English or English in Preparation for the Single Subject Teaching Credential in English Language Arts, refer to the program description for specific impacted criteria.

Advising

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

English Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15011)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 54 units in English, comparative literature, and rhetoric and writing studies courses can apply to the degree.

A minor is not required with this major.

Impacted Program. The major in English is designated as an impacted program and specific criteria are used to admit students. To be admitted to the major in English, students must meet the following criteria:

- Complete with a minimum GPA of 2.50 and a grade of C or higher: Rhetoric and Writing Studies 200; one course from English 220, 280, 281, Comparative Literature 270A, 270B; two courses from English 250A, 250B, 260A, 260B. These courses cannot be taken for credit/no credit (Cr/NC);
- Have a cumulative GPA of 2.40 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. English 250A or 250B; English 260A-260B; Rhetoric and Writing Studies 200; three units selected from English 220, 280, 281, Comparative Literature 270A, 270B. (15 units)

Any grade requirements and GPA requirements listed above for admission to the major in English will also be enforced in Preparation for the Major requirements.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. English 308W, with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 33 upper division units in English and comparative literature with approval of the adviser to include English 533, three units in British literature before 1800 (English 530, 534, 536, 537, 540A, 541A, 542), three units in British literature after 1800 (English 540B, 541B, 543, 544), six units in American literature (English 519, 520-526) including at least one period course (English 521, 522, 523, 524, 525), six units in comparative literature or English 527, 528, or 563, English 308W, and nine units of electives in any combination of courses in American, British, comparative literature, and creative writing.

English Honors Variation. Six rather than nine units of electives; six additional units of upper division coursework in English, comparative literature, or other departments, with consent of honors adviser; and Honors Thesis (English 499 or Comparative Literature 499). (39 units)

NOTE: In addition to the courses listed above, appropriate sections of English 496, 499, 526, 527, 528, 549 and selected comparative literature courses may be used to satisfy the requirements for the major if approved by the departmental adviser.

Selection of Courses

Prospective majors of sophomore standing may, with the consent of the course instructor and subject to general university regulations (see "Credit for Upper Division Courses" in the section of this catalog on General Regulations), substitute six units of upper division electives for six units of lower division work. These courses must be in the same

field as those which they replace, and must be approved by the departmental adviser.

Students of junior or senior standing may substitute for any deficiencies in lower division requirements in English (except Rhetoric and Writing Studies 100 and 200) an equivalent number of units of upper division courses selected with the approval of the departmental adviser.

English Major

In preparation for the Single Subject Teaching Credential in English Language Arts

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15011)

The English major in preparation for the single subject teaching credential in English language arts has been submitted to the California Commission on Teacher Credentialing for approval.

Contact the department for additional information.

Requirements listed here are for the fulfillment of the English major in preparation for the single subject teaching credential in English language arts. All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education. Completion of this major also fulfills 21 units of the General Education program.

A minor is not required with this major.

Impacted Program. The major in English in Preparation for the Single Subject Teaching Credential in English Language Arts is designated as an impacted program and specific criteria are used to admit students. To be admitted to the major in English in Preparation for the Single Subject Teaching Credential in English Language Arts, students must meet the following criteria:

- Complete with a minimum GPA of 2.50 and a grade of C or higher: Rhetoric and Writing Studies 100; English 220 or Comparative Literature 270A or 270B; three courses from English 250A, 250B, 260A, 260B, 280. These courses cannot be taken for credit/no credit (Cr/NC);
- Have a cumulative GPA of 2.40 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. (30 units) 18 units fulfill General Education.

- Rhetoric and Writing Studies 100 and 200 (General Education I. 1 and 2).
- Communication 103 (General Education I. 3).
- English 220 or Comparative Literature 270A or 270B (3 units General Education II. C.1).
- Communication 200.
- Humanities 140 or Theatre 120 (General Education II.C.2).
- Linguistics 101 (3 units General Education II.B) (Linguistics 420 may be substituted).
- English 250A and 250B or 260A and 260B (6 units).
- English 280 or 281.

Any grade requirements and GPA requirements listed above for admission to the major in English in Preparation for the Single Subject Teaching Credential in English Language Arts will also be enforced in Preparation for the Major requirements.

Early Field Experience Requirement. Certification of early field experience required.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. English 308W or Rhetoric and Writing Studies 500W with a grade of C (2.0) or better (see #9 below). See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. (48-51 upper division units) Fulfills three units of General Education. Courses within major cannot be double-counted.

9. English 308W or Rhetoric and Writing Studies 500W.
10. English 502.
11. English 533.
12. For those who took English 250A-250B (American literature survey) select three units from English 530, 534, 536, 537, 540A or 541A; and three units from English 540B, 541B, 542, 543, 544 (no duplication with #18 or 19). (6 units)
For those who took English 260A-260B (British literature survey) select six units from English 521, 522, 523, 524, 525 (no duplication with #18 or 19). (6 units)
13. Comparative Literature 562 or Theatre 310.
14. Linguistics 430 or 530.
- 15*. Linguistics 452 or 550.
16. Rhetoric and Writing Studies 509.
17. Diversity literature course: Three units selected from Africana Studies 365A, 365B, 460, 463, 464, American Indian Studies 430, Chicana and Chicano Studies 335, Theatre 465, Women's Studies 352 (General Education IV.C.) (also acceptable but non-General Education: English 519, 520, Comparative Literature 440, 445, 460).
18. Pre-Nineteenth Century: Three units selected from Comparative Literature 512, English 521, 530, 534, 536, 537, 540A or 541A.
19. Nineteenth Century to Present: Three units selected from Comparative Literature 440, 445, 460, 513, 514, English 522, 523, 524, 525, 540B, 541B, 542, 543, 544.
20. Three units of electives selected from English or Comparative Literature (Recommended: English 510).
21. **Required Specialization: (9-12 units) Select one:**
 - A. English: Nine additional units in any 500-level course in English or Comparative Literature.
 - B. Written Expression: Nine units selected from English 570-587, 508W, 584W.
 - C. Linguistics: (9 units) Three units selected from Linguistics 524, 551, 553; three units selected from Linguistics 410, 453, 555, 571; three units selected from Linguistics 452*, 550*, 552*, 554* (no duplication with #14).
 - D. Theatre+: Theatre 325, 359, 425. (Theatre 107 required as prerequisite for this specialization.)
 - E. Journalism: Communication 310W, 460; Journalism 315. (Journalism 220 required as prerequisite for this specialization.)

Consult with English honors program adviser for honors program variation.

* Additional prerequisites required.

+ Prerequisites waived.

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: English 308W, Rhetoric and Writing Studies 500W or 503W.
3. A course in literature and psychology, the bible as literature, children's literature, adolescence in literature or folk literature: English 301, 405, 491, 501, 502, Comparative Literature 470, or approved sections of special topics courses.
4. A course in contemporary literature: English 525, 544, or approved sections of special topics courses.

Fine Arts disciplines, one course from each group:

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*, 581W*, 583*, 584W*, 587*, or approved sections of special topics courses.

Business disciplines, one course from each group:

1. A course in expository writing: English 308W, Rhetoric and Writing Studies 500W or 503W.
2. A course in Shakespeare, literature and psychology, literature and film, or modern American fiction: English 301, 302, 491, 493, 494, 533.
3. A course in American literature: English 519, 520, 521, 522, 523, 524, 525, or approved sections of 526.
4. A course in British literature: English 536, 540A, 540B, 541A, 541B, 542, 543, or approved sections of 549, and special topics courses.

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 521-525, 536, 537, 542, 543, or 544, Comparative Literature 512, 513, 514.
4. A second course in literary history or a course in literature and other disciplines, English 493, Comparative Literature 594, 595, or approved sections of special topics courses.

Science disciplines, one course from each group:

1. A course in technical writing: Rhetoric and Writing Studies 503W*.
2. A course in Shakespeare or Bible as Literature: English 302, 405, 533.
3. 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.
4. A course in literary history: English 521-525, 536, 542, 543, or 544, Comparative Literature 512, 513, 514.

* Additional prerequisites required.

For students whose needs are not accommodated by any of the above patterns:

Students whose majors are not represented by the patterns above, students who wish to design a minor more directly tailored to their specific major, or students who otherwise feel they have special needs are encouraged to consult with their advisers in both major and minor departments to design individualized minors in English. All such minors must have the written approval of both departmental advisers.

The English minor is not available to students majoring in comparative literature. Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Children's Literature Certificate

No new students are being admitted to this certificate program.

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**.

**With adviser's permission when the subject is closely related to children's literature.

Courses (ENGL)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

ENGL 100. Rhetoric of Written Argument (3) I, II (CAN ENGL 2)

(Same course as Rhetoric and Writing Studies 100.)

International students are advised to take Linguistics 100.

Prerequisites: Satisfaction of the SDSU writing competency requirement. (See Graduation Requirements section of catalog.) **Proof of completion of prerequisites required:** Copy of EPT or competency scores or verification of exemption; proof of credit (Cr) in Rhetoric and Writing Studies 92A or 92B or 97.

Writing and reading as critical inquiry, designed to help students undertake university-level writing projects. Focus on rhetoric of written arguments. Students learn to use sources in their writing and make appropriate decisions about structure, cohesion, and rhetorical conventions. Not open to students with credit in a higher numbered composition course or Rhetoric and Writing Studies 100 or 101 or Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100.

ENGL 200. Rhetoric of Written Arguments in Context (3) I, II

(Same course as Rhetoric and Writing Studies 200.)

International students are advised to take Linguistics 200.

Prerequisites: Satisfaction of the SDSU writing competency requirement and Rhetoric and Writing Studies 100 or 101 or Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Further practice in writing, reading, and critical thinking. Emphasis on rhetoric of written arguments in context and using multiple sources in writing. Continued attention to structure, cohesion, and rhetorical conventions. Not open to students with credit in Africana Studies 200, Chicana and Chicano Studies 200, General Studies 260D, or Linguistics 200 or Rhetoric and Writing Studies 200. Completion of Rhetoric and Writing Studies 200 may require completion of the library workbook assignment.

ENGL 220. Introduction to Literature (3) 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 General Studies 260A or Rhetoric and Writing Studies 100 or 101. **Proof of completion of prerequisite required:** Copy of transcript.

Inquiry into basic nature of literature. What prompts humankind to creation of imaginative literature? What purposes does literature serve in cultural life of humanity? What are its social, philosophical, spiritual, and esthetic values? Some consideration may be given to techniques and major critical theories, but focus will be on practical criticism for nonspecialists. Specific works studied will be representative of several genres, cultures, and periods of literature.

ENGL 250A-250B. Literature of the United States (3-3) (250A: CAN ENGL 14)

Prerequisite: A grade of C (2.0) or better in Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.

United States literature from colonial period to present. Semester I: from beginning to Civil War. Semester II: Civil War to present. Recommended for English majors.

ENGL 260A-260B. English Literature (3-3) I, II (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 General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.

English literature from Anglo-Saxon period to present, with emphasis on major works in literary tradition. Semester I: Ends with neoclassical period. Semester II: Begins with Romantic writers.

ENGL 280. Introduction to Creative Writing (3) I, II (CAN ENGL 6)

Prerequisite: A grade of C (2.0) or better in Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.

Theory and practice of poetry and fiction, with emphasis on basic concepts and techniques. A research paper on a writer, a technique, a period, or a genre required.

ENGL 281. Creative Writing: Selected Genres (3)

Prerequisite: A grade of C (2.0) or better in Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.

Guidance and extensive practice in writing in one or more of the major genres: poetry, drama, fiction, or the essay. See *Class Schedule* for specific content.

ENGL 296. Experimental Topics (1-4)

Prerequisite: A grade of C (2.0) or better in Africana Studies 120 or Chicana and Chicano Studies 111B or General Studies 260A or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.

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

UPPER DIVISION COURSES
(Intended for Undergraduates)

ENGL 301. The Psychological Novel (3) I, II

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

Psychological novel from its inception to present, including major works from a variety of cultures. Readings designed to aid students in discovering insights which great novelists have unearthed in their explorations of the human psyche.

ENGL 302. Introducing Shakespeare (3) I, II

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

Representative tragedies, comedies, and histories. Primarily for the general student not specializing in English or comparative literature. This course does not count toward the English or comparative literature majors. Majors are required to take English 533.

ENGL 306A-306W. Children's Literature and Advanced Composition (3-3) I, II

Prerequisites: Rhetoric and Writing Studies 200. English 306A and 306W must be taken concurrently. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

306A: Reading, analysis, and discussion of classic works of children's literature.

306W: Advanced composition; improvement of student skills through writing assignments based upon reading and work in the lecture part. Primarily designed to meet Upper Division Writing and Literature requirements for Liberal Studies-Emphasis in Education, but also open to students with other majors.

ENGL 308W. Literary Study: Analysis, Research, and Writing (3) I, II

Prerequisite: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Methods of literary analysis; concepts and terminology of literary study; research methods. Modes of writing about literature, with emphasis on the research paper.

ENGL 405. The Bible as Literature (3) I, II

(Same course as Comparative Literature 405.)

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

Prose and poetry of the King James version.

ENGL 409. Science Fiction (3)

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

How authors have responded to growing impact of science and technology on people's lives and imaginations. Representative works by authors such as Kobo Abe, Bradbury, Butler, Delaney, DeLillo, Dick, Gibson, Heinlein, Hoban, Huxley, Kapek, LeGuin, Murakami, Orwell, Poe, Russ, Shelley, Verne, Wells, Zamyatin, and others.

ENGL 410. Literature and the Passions (3)

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

Studies literature and the passions (grief and melancholy, anger and rage, and love) with emphasis on language and rhetorical techniques writers employ to construct emotion. Writers may include Emily Bronte, Raymond Carver, Chretien de Troyes, DuBois, Emerson, Homer, Melville, and Shakespeare.

ENGL 491. Contemporary Topics in Literature (3)

Exploration of writers, works and topics in fiction, poetry, drama, and film, emphasizing the relationship between literature and current concerns. Topics include the city in fiction and film, literature and identity, literature of death, literature of contemporary myth and folklore, women in literature. Primarily for the general student not specializing in English or comparative literature. May count only as an elective course toward the English major. May be repeated with new title and content. Maximum credit six units. See *Class Schedule* for specific content.

ENGL 493. Literature and Film (3)

Relationships between film and genres of literature, focusing on a critical comparison of the techniques of rhetoric, fiction, and drama and those of film. Topics include literature and film, novel into film, drama and film, reading film. Primarily for the general student not specializing in English or comparative literature. May count only as an elective course toward the English major. May be repeated with new title and content. Maximum credit six units.

ENGL 494. Modern Fiction of the United States (3) I, II

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

Representative works by twentieth-century American authors such as Cather, Hemingway, Steinbeck, Faulkner, Fitzgerald, Ellison, Welty, Bellow, Vonnegut, Heller, Walker, others. Primarily for the general student not specializing in English or comparative literature. May count toward the English major only as an elective.

ENGL 496. Selected Topics in English (1-4)

Specialized study of a selected topic in literature. May be repeated with new title and content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

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

Prerequisites: Consent of instructor and approval of department chair. Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

Prerequisite for all 500-level courses: Six lower division units in courses in literature and/or creative writing.

ENGL 501. Literature for Children (3) I, II

Critical analysis of literature intended for children. Study of texts and illustrations.

ENGL 502. Adolescence in Literature (3)

Prerequisite: Six units in literature.

Works centrally concerned with an adolescent protagonist. Includes both traditional novels of development (Bildungsroman) and contemporary young adult novels.

ENGL 503. Topics in Children's Literature (3)

Topics in children's and adolescents' literatures such as regionalism, multiculturalism, fantasy, science fiction, non-fiction, illustrated books, nineteenth-century classics, major works by twentieth-century authors, British children's literature, the noir young adult novel, and the history of genre. Maximum credit six units.

ENGL 508W. The Writing of Criticism (3) I, II

Prerequisites: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Theory and practice of literary criticism. Emphasis on the work of important critics and on development of student's own critical writing.

ENGL 510. Teaching Literature (3)

Prerequisite: Six units in 500-level literature courses.

Theory and practice of teaching literature in high schools, colleges, and universities; various critical approaches (such as feminist, new historical, deconstruction, reader response) to literature and their implications for teaching and developing teaching styles.

ENGL 519. Ethnic Literatures of the United States (3) I, II

Prerequisite: Six units in literature.

Works from United States ethnic literatures, with emphasis on formerly excluded traditions as African-American, Hispanic and Chicano, Asian-American, and American Indian.

ENGL 520. African-American Literary Tradition (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.

ENGL 521. Early American Literature (3) I, II

Prerequisites: Six lower division units in literature.

Representative works by American writers from the colonial period through the Revolution; to include works by Anne Bradstreet, Phillis Wheatley, Olaudah Equiano, Cotton Mather, Jonathan Edwards, Benjamin Franklin, Thomas Jefferson, various Native American speakers and writers, and others.

ENGL 522. Literature of the United States, 1800-1860 (3) I, II

Representative works by United States writers from 1800 to 1860; likely to include works by Emerson, Hawthorne, Melville, Poe, Stowe, Thoreau, Whitman, and others.

ENGL 523. Literature of the United States, 1860-1920 (3) I, II

Representative works by United States writers from 1860 to 1920; likely to include works by Charles Chesnutt, Kate Chopin, Stephen Crane, Emily Dickinson, Henry James, Mark Twain, Edith Wharton, and others.

ENGL 524. Literature of the United States, 1920-1960 (3) I, II

Representative works by United States writers from 1920 to 1960; likely to include works by Willa Cather, T. S. Eliot, William Faulkner, F. Scott Fitzgerald, Ernest Hemingway, Zora Neale Hurston, Eugene O'Neill, Katherine Anne Porter, Ezra Pound, John Steinbeck, and others.

ENGL 525. Literature of the United States, 1960 to Present (3) I, II

United States writers from 1960 to the present; likely to include works by Edward Albee, Saul Bellow, Allen Ginsberg, Joseph Heller, Maxine Hong Kingston, Norman Mailer, Toni Morrison, Sylvia Plath, Adrienne Rich, Kurt Vonnegut, Eudora Welty, and others.

ENGL 526. Topics in Literature of the United States (3)

Topics in United States literature to include the literature of the South, Black writers in the U.S., the frontier and U.S. literature, the out-cast in U.S. literature, the immigrant experience in U.S. literature. May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

ENGL 527. Genre Studies (3)

Study of a specific literary genre or genres, such as the novel, tragedy, epic, and lyric. May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

ENGL 528. Authors (3)

Works of a major author or, if useful comparisons and juxtapositions warrant, works of two or three authors, such as Jane Austen, Melville, Emerson, and Thoreau. May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

ENGL 530. Chaucer (3)

Chaucer's works, with emphasis on *The Canterbury Tales* and *Troilus and Criseyde*.

ENGL 533. Shakespeare (3) I, II

An introduction to the writings of Shakespeare. This course cannot be used in place of English 302 to satisfy General Education requirements.

ENGL 534. Study of Shakespeare (3)

Prerequisite: English 533.

Advanced study of Shakespeare's achievement as poet and playwright. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

ENGL 536. British Literary Periods, Beginnings to 1660 (3)

Prerequisite: Six lower division units in literature and/or creative writing courses.

Study of a literary period such as the Middle Ages or Renaissance. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

ENGL 537. Milton (3)

Milton's writings, with emphasis on *Paradise Lost*.

ENGL 540A-540B. English Fiction (3-3)

The development of English fiction from its beginnings to the end of the nineteenth century. Semester I: The eighteenth century. Semester II: The nineteenth century.

ENGL 541A-541B. English Drama (3-3)

English dramatic literature from its beginnings to the present. Semester I: From the beginning to 1642. Semester II: Period following reopening of the theatres in 1660.

ENGL 542. British Literary Periods, 1660-1800 (3)

Prerequisite: Six lower division units in literature and/or creative writing courses.

Study of a literary period such as the Restoration or Enlightenment. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

ENGL 543. British Literary Periods, 1800-1900 (3)

Prerequisite: Six lower division units in literature and/or creative writing courses.

Study of a literary period such as the Romantic or Victorian Age. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

ENGL 544. British Literary Periods, 1900-Present (3)

Prerequisite: Six lower division units in literature and/or creative writing courses.

Study of a literary period such as the Postmodern Era. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

ENGL 549. Topics in English Literature (3)

The works of Spenser, the metaphysical school of poetry, the English satirists, major movements in contemporary English fiction, and the like. May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

ENGL 563. Literature and Culture (3)

Prerequisite: Six lower division units in literature and/or creative writing courses.

Study of literature in relation to a specific culture idea or phenomenon, such as literature and the law, literature and technology. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

ENGL 570. Techniques of Poetry (3)

Prerequisite: English 280.

Techniques of poetry from the creative writer's point of view. Introduction to critical and theoretical literature on poetry. Includes a creative writing workshop.

ENGL 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.

ENGL 573. Techniques of the Novel (3)

Prerequisite: English 280.

Techniques of the novel from the writer's point of view. Introduction to critical and theoretical literature on the novel. Includes a creative writing workshop.

ENGL 577. Techniques of Screenwriting (3)

Prerequisite: English 280 or Television, Film, and New Media 110 or 510 for television, film, and new media majors.

Techniques of screenwriting. Introduction to critical and theoretical literature on screenwriting. Includes a creative writing workshop.

ENGL 579. Topics in Creative Writing (3)

Prerequisite: English 280.

Techniques of creative writing focusing on a specialized genre such as comedy, science fiction, and biography. Study of the critical and theoretical literature on the genre. Includes a creative writing workshop. See *Class Schedule* for specific content. Maximum credit six units.

ENGL 580. Writing of Poetry (3) I, II

Prerequisite: English 570.

A creative writing workshop in poetry. Continuation of English 570. Maximum credit six units.

ENGL 581W. Writing of Fiction (3) I, II

Prerequisites: English 280. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

A creative writing workshop in fiction. Continuation of English 571. Maximum credit six units.

ENGL 583. Writing Long Narrative (3)

Prerequisite: English 573.

A creative writing workshop in long narrative, especially the novella or novel. Continuation of English 573. Maximum credit six units.

ENGL 584W. Writing Informal Essays (3) I, II

Prerequisites: English 280. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

A creative writing workshop in nonfiction, especially the essay as an art form. Maximum credit six units.

ENGL 587. Writing the Screenplay (3)

Prerequisite: English 577 or Television, Film, and New Media 110 or 510 for television, film, and new media majors.

A creative writing workshop in screenwriting with emphasis on the feature film. Continuation of English 577. Includes playwriting and revising a television script or short film. Maximum credit six units.

ENGL 596. Selected Topics in English (1-3)

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

Comparative Literature

(See this section of catalog under Comparative Literature.)

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.

Environmental Engineering

In the College of Engineering

OFFICE: Engineering 424

TELEPHONE: 619-594-6071

E-MAIL: environmental@engineering.sdsu.edu

Faculty

Emeritus: Stratton

Chair: Supernak

The Blasker Chair in Environmental Engineering: Gurol

The William E. Leonhard, Jr. Chair in Civil and Environmental Engineering: Forman

Professor: Gurol

Assistant Professors: Badriyha, Buyuksonmez, Forman

Offered by the Department of Civil and Environmental Engineering

Doctor of Philosophy degree in engineering sciences/applied mechanics.

Master of 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.

The William E. Leonhard, Jr. Chair in Civil and Environmental Engineering

The William E. Leonhard, Jr. Chair in Civil and Environmental Engineering is funded with an endowment created by generous gifts from William G. Leonhard, Jr. and his parents, William E. and Wyllis M. Leonhard. After Bill Leonhard graduated from San Diego State in 1964, he entered a career in the Air Force, rising to the rank of colonel. In January 1990, he retired from the Air Force, spent the next several years in private industry, and retired again in 1998. The first appointee to the chair is Assistant Professor, Dr. Selena Forman, an expert in sediment water interactions, contaminated sediment transport, and river restoration design.

Transfer Credit

No credit will be given for upper division engineering coursework taken at an institution having an engineering program which has not been accredited by the 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 and IV combined (Foundations and Explorations), nor more than 10 units from one department in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).

I. Communication and Critical Thinking: 9 units

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

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)

II. Foundations: 29 units

A. Natural Sciences and Quantitative Reasoning (17 units):

1. Physical Sciences (11 units)
Engineering students will take Chemistry 200 which includes a laboratory (5 units).
Physics 195 (3 units)
Physics 196 (3 units)
2. Life Sciences (3 units)
Environmental engineering majors will take Biology 201B, 3 units applicable to General Education.
3. Laboratory (satisfied under A.1. above)
4. Mathematics/Quantitative Reasoning
Engineering students will take Mathematics 150, 3 units applicable to General Education. You may **not** use Credit/No Credit grades.

B. Social and Behavioral Sciences (3 units)

C. Humanities (9 units)

Complete three courses in three different areas. One of these courses and the one under IV.A. below must be taken in the same department.

III. American Institutions: Three units of the six units of coursework which meet the American Institutions graduation requirement may be used in General Education, excluding courses numbered 500 and above.

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

Total: 9 units; must include one course of cultural diversity.

A. Upper division Humanities (3 units)

Three units must be taken from the same department as one of the Humanities courses selected in Foundations.

B. Upper division Humanities (3 units from a department not selected in A above.)

C. Upper division Social and Behavioral Sciences (3 units)

The Major

Environmental engineering involves the identification and design of solutions for environmental problems. Society's most crucial environmental problems, such as providing safe drinking water, treatment and proper disposal of wastes, water and air pollution control, remediation of sites contaminated with spills or improper disposal of hazardous substances, are handled by environmental engineers. Environmental engineers are technical professionals who possess the scientific knowledge to identify, design, build and operate systems that protect the environment from the impact of human activities, and as such make modern society possible.

The environmental engineering field and environmental engineering education are multidisciplinary. The B.S. degree provides a solid foundation in the fundamentals of mathematics, physics, chemistry, and engineering design that are needed to practice the profession or to pursue a graduate degree. Environmental engineering education also includes a range of other disciplines, such as biology, computer science, ecology, economics, geological sciences, and public health. To be able to address the spectrum of issues facing the environment, environmental engineers are broadly educated, as well as technically trained.

Environmental engineers are needed in both the private and public sectors. They are employed by engineering consulting firms that work in environmental pollution control, industries that need to comply with pollution emission and discharge regulations, private and municipal agencies that supply drinking water, treat and dispose wastes, government agencies that monitor and regulate waste discharges and air emissions, private and government laboratories, and universities that conduct environmental research, international agencies that transfer knowledge to the developing world, and public-interest groups that advocate environmental protection.

Environmental Engineering Major

With the B.S. Degree (Major Code: 09221)

NOTE: See chart on the following page for the recommended sequence of courses for the major in environmental engineering.

All students in environmental engineering pursue a common program of study in basic sciences, engineering, and environmental engineering fundamentals and design. The program allows six units of "professional electives" which can be selected from available courses in environmental chemistry, environmental microbiology, water resources, and other areas. *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.*

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

NOTE: See the following chart for recommended sequence of courses for the major in environmental engineering.

ENVIRONMENTAL ENGINEERING MAJOR

FALL		FIRST YEAR		SPRING	
SEMESTER 1		UNITS	SEMESTER 2	UNITS	
GE Composition		3	GE Phys Sci/Lab/Major	CHEM 130	3
GE Math/Major Prep:	MATH 150	4	Major Preparation:	CIV E 160	2
GE Phys Science/Lab/Major:	CHEM 200	5	Major Preparation:	MATH 151	4
Major Preparation:	CIV E 120	3	Major Preparation:	PHYS 195	3
			Major Preparation:	CIV E 121	2
University Seminar		1	Env. Engr Seminar	ENV E 101	2
Total Units		16	Total Units		16
Cumulative Total		16	Cumulative Total		32
FALL		SECOND YEAR		SPRING	
SEMESTER 3		UNITS	SEMESTER 4	UNITS	
GE Intermediate Composition		3	GE Oral Communications		3
Major Preparation:	MATH 252	4	GE Life Science	BIOL 201B	4
Major Preparation:	PHYS 196	3	General Education		3
Major Preparation:	E M 202	3	Major Preparation:	PHYS 197	3
Major Preparation:	CIV E 220	3	Major Preparation:	ENGR 280	3
Total Units		16	Total Units		16
Cumulative Total		48	Cumulative Total		64
FALL		THIRD YEAR		SPRING	
SEMESTER 5		UNITS	SEMESTER 6	UNITS	
General Education		3	General Education		3
Major:	ENV E 355	3	Professional Electives		3
Major:	E M 340	3	Major:	ENV E 553	3
Major:	E M 341	1	Major:	ENV E 556	3
Major:	ME 352	3	Major:	CIV E 444	3
Major:	ENGR 430	3	Major:	BIOL 315	3
Total Units		16	Total Units		18
Cumulative Total		80	Cumulative Total		98
FALL		FOURTH YEAR		SPRING	
SEMESTER 7		UNITS	SEMESTER 8	UNITS	
General Education		6	General Education		6
Major:	ENV E 554	3	Professional Electives		3
Major:	ENV E 555	3	GE American Institutions		6
Major:	ENV E 558	3	Major:	*CIV E 495	3
Major:	*GEOL 551	3			
Total Units		18	Total Units		18
Cumulative Total		116	Cumulative Total		134

* Prerequisites waived.

Courses (ENV E)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Note: Proof of completion of prerequisites (copy of transcript) is required for all courses which list prerequisites.

LOWER DIVISION COURSES

ENV E 101. Environmental Engineering Seminar (2) I

Breadth and depth of environmental engineering field through presentations by invited faculty, graduate students, guests and seminar enrollees; including individual library research with written and oral presentations on selected environmental topics.

ENV E 296. Experimental Topics (1-4) I, II

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

UPPER DIVISION COURSES (Intended for Undergraduates)

ENV E 320. Designing Solutions for Environmental Problems (3) 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.)

ENV E 355. Environmental Engineering (3) I, II

Prerequisite: Chemistry 200.

Causes and effects of environmental problems and engineering methods to control them.

ENV E 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.

ENV E 499. Special Study (1-3) Cr/NC I, II

Prerequisites: Minimum grade point average of 3.0 and consent of instructor.

Individual study in the area of environmental engineering. Maximum credit six units for any combination of Environmental Engineering 496, 499 and 596.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

ENV E 553. Environmental Engineering Laboratory (3)

Two lectures and three hours of laboratory.

Prerequisites: Chemistry 200 and Environmental Engineering 355.

Analysis of natural waters and wastewaters. Sampling and analysis of hazardous environmental pollutants. Techniques to analyze solid waste.

ENV E 554. Process Fundamentals of Environmental Systems (3) 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.

ENV E 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 water treatment processes. Water reclamation.

ENV E 556. Air Pollution Engineering (3)

Prerequisite: Environmental Engineering 355.

Sources of air pollutants. Transportation, dispersion, and transformation of pollutants in the atmosphere. Measurement and control of air pollution.

ENV E 558. Solid and Hazardous Waste Engineering (3)

Prerequisite: Environmental Engineering 355.

Municipal solid and hazardous solid wastes from an environmental engineering perspective, including waste minimization and recycling. Engineered volume reduction through composting, incineration, mechanical compaction, and other methods. Ultimate disposal, land-fill design and legislative regulations.

ENV E 596. 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 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

In the College of 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 and Biochemistry), 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.

Emphasis in watershed science.

The Major

Environmental sciences is an interdisciplinary program leading to a Bachelor of Science degree in applied arts and sciences. The program will provide the student with a rigorous and broad foundation in those sciences most relevant to environmental issues. While the focus is on the physical environmental sciences, some coursework is required in biology, computer science, geography, and statistics. Those students wishing to concentrate more on the biological aspects of the environment, should consider the ecology emphasis offered by the Department of Biology.

Upon completion of the degree, students will be prepared to understand and contribute to a broad range of environmental problems confronting society. This major should be especially attractive to students who wish a broader background in the environmental sciences than is easily offered by individual departments. The major will prepare the student for employment in diverse situations in the dynamic and ever-changing environmental science job market. It will also be an excellent undergraduate major for students planning to go on to graduate school in any of the environmental sciences.

Advising

Students are required to meet with the undergraduate adviser in order to declare the major. Students wishing to major in environmental sciences are urged to meet with the adviser during their first semester.

Environmental Sciences Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 49011)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Individual master plans are filed with both the environmental sciences adviser and the Office of Advising and Evaluations.

A minor is not required with this major.

Preparation for the Major. Environmental Sciences 100; Biology 201A, 201B; Biology 215 or Statistics 250; Chemistry 200, 201, 231; Computer Science 205; Geological Sciences 100, 101; Geography 103; and Mathematics 150, 151, Physics 195, 195L, 196, 196L, or Mathematics 121, 122, Physics 180A, 180B, 182A, 182B. (52-54 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Environmental Sciences 498A-498B; Biology 354; Geography 508 or 511; Geography 484 or 488 or Geological Sciences 505; Geological Sciences 305 or Environmental Engineering 355; Geological Sciences 545 or Oceanography 541; 15 units selected from Biology 350, 517, 540, Chemistry 571, Computer Science 558, Economics 452 or 453, Geography 570, 572, 574, Geological Sciences 530 or 551, Mathematics 336.

Emphasis in Watershed Science

Environmental sciences has a strong geographic component. Understanding how vegetation, soils, climate, water, and human activities interact within a spatial context is the basis for watershed analysis. Students in this emphasis will a) acquire a fundamental background in the scientific fields that contribute to watershed analysis (geology and geomorphology, hydrology, ecology, and climatology) and b) develop skills and techniques that are important in applying and integrating this knowledge within a spatial context to address watershed science and management challenges at local to regional scales.

Preparation for the Major. Environmental Sciences 100; Biology 201A, 201B; Biology 215 or Statistics 250; Chemistry 200; Geography 103; Geological Sciences 100, 101; and Mathematics 121, 122, Physics 180A, 180B, 182A, 182B; or Mathematics 150, 151, Physics 195, 195L, 196, 196L. (40-42 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 40-41 upper division units to include Biology 354; Geography 380, 385*, 401*, 483*, 484 or 488*, 495, 511*; Geological Sciences 305; 15 units selected from the following courses, at least 12 units must be from 500-level courses selected from Biology 531, 535, 540, Geography 370*, 504*, 505, 570, 584 or 588, Philosophy 332, Physics 301, Public Administration 320.

* Environmental Science 100 and Geography 103 may be substituted for Geography 101 prerequisite.

Courses (ENV S)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

ENV S 100. Environmental Sciences (3)

The earth as an ecosystem composed of biological, chemical, and physical systems and how these systems interact with one another and the human population.

ENV S 299. Special Study (3)

Prerequisite: Consent of program director and instructor.
Individual Study.

UPPER DIVISION COURSES (Intended for Undergraduates)

ENV S 498A-498B. Senior Seminar in Environmental Sciences (3-3)

Prerequisite: Senior standing in the environmental sciences major.
Research projects related to an environmental issue in the San Diego and California region.



European Studies

In the College of Arts and Letters

OFFICE: Business Administration 304

TELEPHONE: 619-594-5111

FAX: 619-594-8006

E-MAIL: euro.coord@sdsu.edu

Faculty

Chair: Benkov

Professors: Benkov, Loughrin-Sacco, Lyman-Hager, Schorr,
Shapovalov

Associate Professors: Cornwell, Donadey, Wauchope

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: 19-32 units.)

I. *European Studies* (9 units). European Studies 101, History 105 and 106.

II. *Foreign Language and Culture* (Select one: 10-23 units.)

French 100A, 100B, 201, 210, 220, 221. (22 units)

German 100A, 100B, 202, 205A, 205B. (21 units)

Italian 100A, 100B, 201, 210. (16 units)

Portuguese 101, 201. (10 units)

Russian 100A, 100B, 110, 200A, 200B. (23 units)

Spanish 101, 102, 103, 202, 211, 212. (22 units)

Language Requirement. The language requirement is automatically fulfilled through coursework for the major.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

International Experience Requirement. All European studies majors are required to complete a study abroad program in a European country, consisting of a minimum of six units (90 hours). However, European studies majors are strongly encouraged to complete a more extensive abroad experience by participating in a semester or an academic year program. To fulfill the study abroad requirement, European studies majors must enroll in an approved program. Unapproved study abroad programs will not meet the international experience requirement for the major.

Major. (Complete I, II, III, and IV below: 36 units.)

I. *European Studies* (12 units). European Studies 301, 501, and six units selected from any 400- or 500-level European studies courses.

II. *National Language and Culture Emphasis* (12 units). Complete one language and culture emphasis:

French 301, 421, 422, and one additional three unit course.

German 301, 400, 430, and one additional three unit course.

Italian 301, 422, 424, and one additional three unit course.
 Portuguese 301, 401, 534, and one additional three unit course.
 Spanish 301, 340, 405B, and Spanish 302 or 381.
 Russian 301, 311, 430, and one additional three unit course.

III. European Studies Electives (6 units). Select six units from the following: European Studies 501, 527; Art 558, 559; Comparative Literature 514; Geography 336; History 408, 440, 512A, 512B; Humanities 404; Music 408A; Philosophy 506, 508; Political Science 302, 356; Russian 435; Women's Studies 340.

IV. National Culture Electives (6 units). Courses must be selected from an area other than courses selected for National Language and Culture Emphasis. Select six units from the following: English 544; French 424; German 320; History 418, 517, 518; Humanities 310, 320, 330; Italian 422; Political Science 357, 359; Russian 305A, 305B.

Language Proficiency Exit Examination. Students are required to satisfy the Language Proficiency Exit Examination before graduation. To clear the language proficiency exit requirement, students must achieve a passing score on a language examination approved by the European Studies program. For further information concerning test dates, contact the European Studies office.

Russian and Central European Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 03071)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Russian 100A, 100B, 110, 200A, 200B. (23 units)

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

International Experience Requirement. All Russian and Central European Studies majors are required to complete a study abroad program in Russia or any other Slavic-language speaking country, consisting of a minimum of six units (90 hours). However, all majors are strongly encouraged to complete a more extensive abroad experience by participating in a semester or academic year program. To fulfill the study abroad requirement, Russian and Central European Studies majors must enroll in an approved program. Unapproved study abroad programs will not meet the international experience requirement for the major.

Major. A minimum of 27 upper division units to include Economics 330*, History 518, Humanities 330 or Russian 430, Political Science 359, Russian 301, 310, 311, and six units of electives in 400- or 500-level courses in Russian.

* Additional prerequisites required.

European Studies Minor

The minor in European studies consists of a minimum of 15 units to include European Studies 101 and 301 and nine additional upper division units from European Studies courses or Humanities 404. Students must also establish proficiency level in a European language other than English by completing one of the courses which satisfies the language graduation requirement or demonstrates equivalent proficiency.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University, including units earned abroad.

Courses (EUROP)

Refer to *Courses and Curricula and University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

EUROP 100. New Perspectives in European Studies (1) Cr/NC

New interpretations of European language, culture, politics, and social issues. Presentations from perspective of various disciplines. Contemporary issues.

EUROP 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.

EUROP 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

EUROP 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.

EUROP 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.

EUROP 496. Experimental Topics (1-4)

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

EUROP 499. Special Study (1-3)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

EUROP 501. European Life and Culture (3)

Prerequisite: European Studies 301.

Specialized study of topics such as European union, European women, or European art. May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

EUROP 527. The Holocaust in Feature Films (3) II

(Same course as History 527.)

Two lectures and two hours of activity.

Prerequisite: Upper division or graduate standing.

Depiction of the Nazi policy of destroying European Jewry and its impact on the perpetrators, bystanders, victims, and the post-war world in feature films.

EUROP 560. Technologies and Methodologies: Language Learning and Teaching (3) I

Two lectures and two hours of activity.

Prerequisite: Advanced level foreign language competency.

Understanding foreign language competencies; create and use technology-assisted learning and testing materials; review and evaluate foreign theories and methodologies.

EUROP 596. Topics in European Studies (3)

Prerequisites: European Studies 301 for majors and minors; upper division standing for all others.

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



Exercise and Nutritional Sciences

In the College of Professional Studies and Fine Arts

OFFICE: Exercise and Nutritional Sciences 351
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, Francis, P., Franz, Friedman, Grawunder, Gutowski, Kasch, King, Landis, McKenzie, T., Phillips, Quinn, Rushall, Schwob, Selder, Sleet, Smith, Sucec, Tollefsen, Wells, Whitby, Wilhelm, Williamson, Ziegenfuss

Interim Chair: Aufsesser

Professors: Ainsworth, Aufsesser, Buono, Mechikoff, Moore, Nichols-Bernhard, Patterson, Simmons, Verity

Associate Professors: Kahan, Kolkhorst, LaMaster, Wiksten, Yaggie

Assistant Professors: Levy, Marshall

Lecturers: McKenzie, R., Voigt

Offered by the Department

Master of Arts degree in kinesiology.

Master of Science degree in exercise physiology.

Master of Science degree in nutritional science and Master of Science degree in exercise physiology (concurrent program).

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

Emphasis in athletic training.

Emphasis in fitness, nutrition, and health.

Emphasis in physical education.

Emphasis in prephysical therapy.

The Major

Kinesiology is the study of the processes through which individuals obtain optimal health, physical skill, and fitness. The professional, whether in a laboratory, school, medical or business setting, is ultimately concerned with improving the health and well-being of people.

The uniqueness of the academic area known as kinesiology is the study of human movement. The academic foundation for the study of human movement is covered by courses that explore movement as it affects and is affected by physiological, psychological, developmental, sociocultural, and mechanical parameters. Application of movement concepts evolves from an academic foundation and is covered by courses that study how movement is quantified, how learning experiences are sequenced to modify movement behaviors, and how movement is modified for special needs.

The degree name was changed to kinesiology to better reflect the diversity of subject matter and breadth of career opportunities available to today's students. Some of the typical fields open to kinesiology majors include:

Athletic Training. The athletic training emphasis is a CAAHEP accredited undergraduate athletic training program. The program leads students to a career in athletic training and eligibility to sit for the National Athletic Trainers' Association Board of Certification (BOC) certification examination. Certified athletic trainers are responsible for the prevention, management, and rehabilitation of athletic injuries.

They work in such diverse areas as high schools, community colleges, universities, sports medicine clinics, corporate/industrial settings; and professional athletics. The athletic training program is comprised of two phases of study, a preprofessional phase and a professional phase. The professional program requires application to the program and includes a clinical education component. Admission to the professional program is competitive and applicants must meet the technical standards for admission as outlined in the application packet. Students will not be able to declare major status in athletic training until they have been accepted into the professional program. Applications are accepted each spring for fall selection. Students interested in the athletic training program are encouraged to meet with the athletic training program director as soon as possible for timely progression in the program.

Fitness, Nutrition, and Health. Persons pursuing this emphasis often find employment in the private and public sectors concerned with the fitness and health of employees. This emphasis prepares students to meet the academic requirements necessary to (1) evaluate and program exercises for apparently healthy persons in diverse fitness and health settings, and (2) pursue certifications that reflect knowledge of the scientific principles that govern leadership in exercise and health enhancement programs. Graduates work as fitness experts and managers in adult and corporate fitness programs of business, industry, public agencies, and schools. There are also career opportunities for employment in the business sector to include fitness clubs, cardiac rehabilitation, and human efficiency research.

Physical Education. The graduate in kinesiology may find employment in public and private schools, specializing at either the elementary or secondary level. Kinesiology majors teach activities and sports skills, health and fitness classes, and act as physical education resource specialists. Students may also prepare for careers in athletic coaching. Opportunities for both men and women exist at the interscholastic level as well as with community and commercial sports clubs.

Prephysical Therapy. Students in this emphasis may choose either (a) Rehabilitative Science or (b) Kinesiotherapy.

Rehabilitative Science. This specialization prepares students to meet the academic requirements necessary for entry to postgraduate education in physical therapy, chiropractic, occupational therapy, physician assistant, and podiatry. Students find employment in a broad range of medical environments. Students wishing to meet all requirements for postgraduate education for a professional degree should meet with the undergraduate adviser as well as contact potential postgraduate education sites to obtain specific entry requirements.

Kinesiotherapy. This specialization is designed to prepare students to meet the academic requirements for national registration in kinesiotherapy. The kinesiotherapist is academically and clinically prepared to provide rehabilitative exercise and education, in an appropriate setting, under the prescription of a licensed physician. Kinesiotherapists are accountable to the referring physician for their actions and those of their subordinates. The academic and clinical basis of kinesiotherapy is founded on the modalities of exercise and education. Kinesiotherapists are qualified to implement exercise programs designed to reverse or minimize debilitation and to enhance the functional capacity of medically stable patients in wellness, subacute or extended care settings.

Impacted Programs

The kinesiology major with emphases in athletic training; fitness, nutrition, and health; physical education; and prephysical therapy are impacted programs.

To be admitted to a kinesiology major emphasis, students must meet the following criteria:

- 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);
- Complete a minimum of 60 semester units applicable to the lower division General Education requirements to include all Preparation for the Major requirements for kinesiology major emphasis, and electives to reach 60 units. Exercise and Nutritional Sciences 210 and Biology 212 must be completed before taking upper division major courses. Preparation for the Major courses cannot be taken for credit/no credit (Cr/NC);
- Have a cumulative GPA of 2.50 or higher;
- 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
(Major Code: 08351)

All candidates for a degree in applied arts and sciences must complete the requirements listed in the section of this catalog on "Graduation Requirements."

Preparation for the Major courses cannot be taken for Credit/No Credit (Cr/NC). Exercise and Nutritional Sciences 210 and Biology 212 must be completed with a grade of C or higher.

Emphasis in Athletic Training

Preparation for the Major. Exercise and Nutritional Sciences 104A or 104B, 210, 265, 265L, 289; Biology 201A, 212; Chemistry 200; Nutrition 202; Physics 180A; Psychology 101, 260; Sociology 101; and one of the following: Biology 215, Economics 201, Psychology 270, Sociology 201, Statistics 119. (37 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. Acceptance into the athletic training professional program is required for major status in the athletic training emphasis. Application to the program is competitive and limited in number. Applications are due April 1 each year. Those students interested in the athletic training program should contact the athletic training program director. A minimum of 55 upper division units to include Exercise and Nutritional Sciences 301, 302, 303, 304, 304L, 305, 306, 307, 365, 367, 367L, 368, 368L, 388 (1 unit), 389A, 389B, 389C, 389D, 401A, 401B, 461, 462, 463, 463L, 465, 466; Biology 336. Biology 336 will also satisfy three units of the General Education requirement in IV.A. Recommended: Students should take Sociology 355 to satisfy the General Education requirement in IV.B.

Emphasis in Fitness, Nutrition, and Health

Preparation for the Major. Exercise and Nutritional Sciences activities (2 units), Exercise and Nutritional Sciences 104A or 104B, 210, 265, 265L; Biology 100, 100L, 212; Chemistry 100; Nutrition 202; Psychology 101; Sociology 101; and three units selected from Biology 215, Economics 201, Psychology 270, Sociology 201, Statistics 119. (31 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 51 upper division units to include Exercise and Nutritional Sciences 301, 302, 303, 304, 304L, 305, 306, 307, 347A, 347B, 363, 388 (1 unit), 401A, 401B, 412, 431, 432, 432L, 433, 434; Biology 336; Nutrition 309, 311; Biology 336 will also satisfy three units of the General Education requirement (IV.A). Recommended: Students should take Sociology 355 to satisfy the General Education requirement (IV.B).

Emphasis in Physical Education

This program must be elected by students who wish to be a candidate for a single subject teaching credential at San Diego State University.

All requirements as outlined in this section and the sections titled Policy Studies in Language and Cross-Cultural Education or Teacher Education in this catalog must be completed.

This major may be used by students in policy studies or teacher education as an undergraduate major for the B.S. degree in applied arts and sciences.

Preparation for the Major. Exercise and Nutritional Sciences 210, 265, 265L; Biology 100; Biology 212; Psychology 101; Sociology 101; and one of the following: Biology 215, Economics 201, Psychology 270, Sociology 201, Statistics 119. (20 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 51 upper division units to include Exercise and Nutritional Sciences 301, 302, 303, 304, 304L, 305, 306, 307, 335, 341, 347A, 347B, 348, 351, 401A, 401B, 441A, 441B, 442A, 442B, 445, 446A, 446B; Biology 336. Biology 336 will also satisfy three units of the General Education requirement (IV.A.). Recommended: Students should take Sociology 355 to satisfy the General Education requirement (IV.B.).

Emphasis in Prephysical Therapy

Students interested in applying to postgraduate allied health programs are advised to follow (a) Rehabilitative Science, while those interested in kinesiotherapy should follow (b) Kinesiotherapy.

Preparation for the Major. Exercise and Nutritional Sciences 104A or 104B, 210, 265, 265L; Biology 201A, 212; Chemistry 200; Physics 180A, 182A; Psychology 101; Sociology 101; and one of the following: Biology 215, Economics 201, Psychology 270, Sociology 201, Statistics 119. (31 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 40 upper division units to include Exercise and Nutritional Sciences 301, 302, 303, 304, 304L, 305, 306, 307, 363, 365, 388 (1 unit), 401A, 401B, 460; Biology 336, 436, Psychology 350. Biology 336 will also satisfy three units of the General Education requirement (IV.A.). Recommended: Students should take Sociology 355 to satisfy the General Education requirement (IV.B.).

(a) Rehabilitative Science

Additional Preparation for the Major. Biology 210; Chemistry 201; Physics 180B, 182B. (13 units)

Major. No additional major upper division units required.

(b) Kinesiotherapy

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.

Types of Activity Courses

The department offers a wide variety of physical activity courses ranging from adapted physical education through intermediate level classes. The purpose of the physical activity program is to:

1. Provide quality physical activity skill instruction at the beginning and intermediate levels in a wide variety of sport and dance activities.
2. Provide a vehicle for vigorous physical activity in an instructional setting.
3. Provide knowledge about various sport and dance activities.
4. Provide knowledge about the value of physical activity as it relates to an improved quality of life.
5. Provide opportunity for physical activity instruction to all segments of the student population, including those with temporary or permanent disabilities.

Courses (ENS)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

Courses offered for one unit credit meet two hours per week or equivalent.

"A" signifies a beginning class, "B" intermediate.

Dance activity courses: Ballroom Dance, Folk Dance, Ballet, Jazz Dance, Modern Dance. Refer to "Dance" in this section of the catalog.

ENS 102. Conditioning (1) I, II

ENS 104A-104B. Weight Training (1-1) I, II

ENS 105. Individual Adaptives (1) I, II

Prerequisite: Consent of instructor.

A health history record is required of each student.

Individual exercise programs for those who are handicapped in some respect, or who have functional defects or deficiencies amenable to improvement through exercise. May be repeated for credit.

ENS 108A-108B. Basketball (1-1) I, II

ENS 109A-109B. Soccer (1-1) I, II

ENS 110A-110B. Volleyball (1-1) I, II

ENS 111A-111B. Softball (1-1) I, II

ENS 116A-116B. Golf (1-1) I, II

ENS 118A-118B. Tennis (1-1) I, II

ENS 119A-119B. Bowling (1-1) I, II

ENS 120A-120B. Badminton (1-1) I, II

ENS 123A-123B. Racquetball (1-1) I, II

ENS 124. Sailing (1)

ENS 130. Step Training (1) I, II

ENS 137A. Aerobic Dance (1) I, II

ENS 138. Selected Activities (1) I, II

May be repeated with new activity for additional credit. See *Class Schedule* for specific content.

ENS 139A. Beginning Rock Climbing (1) I, II

Two hours of activity.

Rock climbing concepts and theories. Active participation using beginning techniques and training concepts.

ENS 139B. Intermediate Rock Climbing (1) I, II

Two hours of activity.

Prerequisite: Exercise and Nutritional Sciences 139A.

Rock climbing concepts and theories. Active participation using advanced techniques, training concepts, and lead climbing concepts expected.

ENS 141A-141B. Martial Arts (1-1) I, II

Exercise and Nutritional Sciences 141A is prerequisite to 141B.

ENS 145. Wakeboarding and Waterskiing (1) I, II

ENS 146. Surfing (1) I, II

ENS 147. Windsurfing and Kiteboarding (1) I, II

Theory and mechanical skills of windsurfing and kiteboarding. Proper rigging, body position, and sailing theory, right-of-way rules and boating safety for good fundamental base to confidently continue both.

ENS 210. Introduction to Kinesiology (2) I, II

Overview of discipline of kinesiology. Development of a basic philosophy and background for entering profession.

ENS 211. Introduction to Kinesiotherapy (1) I, II

Prerequisites: Exercise and Nutritional Sciences 210 and Biology 212.

Introduction to kinesiotherapy including history, educational requirements, standards of practice, scope of practice and basic skills needed to enter kinesiotherapy.

ENS 241A. Physical Education of Children—Theory (1) I, II

Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 241B.

Physical education of elementary school-aged children: Theoretical and scientific bases. Not open to kinesiology majors.

ENS 241B. Physical Education of Children—Activities (1) I, II

Two hours of activity.

Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 241A.

Physical education of elementary school-aged children: Activities and instruction. Not open to kinesiology majors.

ENS 265. Techniques in Athletic Training (1) I, II

Prerequisite: Credit or concurrent registration in Biology 212.

Athletic training techniques and emergency field care of athletic injuries. Theory and techniques of basic athletic first aid, emergency procedures including CPR, bandaging and taping.

ENS 265L. Techniques in Athletic Training Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 265.

ENS 288. Preprofessional Practicum in Kinesiotherapy (1) I, II

Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 211.

Basic kinesiotherapy principles and techniques in a variety of clinical settings.

ENS 289. Pre-Professional Practicum in Athletic Training (1)

Prerequisite: Credit or concurrent registration in Exercise and Nutritional Sciences 265 and 265L.

Basic athletic training principles and techniques; athletic training event coverage under direct supervision of a certified athletic trainer.

ENS 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

ENS 301. Physical Growth and Development (3) I, II

Prerequisite: Exercise and Nutritional Sciences 210.

Principles of human growth; performance as affected by developmental levels and individual differences in structure and function.

ENS 302. History and Philosophy: Physical Activity and Sport (3) I, II

Prerequisite: Exercise and Nutritional Sciences 210.

Integrated approach to understanding of historical, philosophical, and sociological forces shaping development of physical activity and sport.

ENS 303. Applied Kinesiology (3) I, II

Prerequisites: Grade of C or better in Biology 212 and Exercise and Nutritional Sciences 210 or Dance 181. **Proof of completion of prerequisites required:** Copy of transcript. Limited to kinesiology, exercise physiology, nutritional science and exercise physiology, foods and nutrition and dance majors. Major Codes: 08351, 08355, 08356, 10081, 13061.

Arthrology, syndesmosiology and myology, with emphasis on movement analysis. Muscle groups and their functional relationships. Application of simple mechanical principles to movement analysis.

ENS 304. Physiology of Exercise (3) I, II

Prerequisites: Grade of C or better in Exercise and Nutritional Sciences 210 or Nutrition 101, and Biology 336. **Proof of completion of prerequisites required:** Copy of transcript. Limited to kinesiology, exercise physiology, nutritional sciences and exercise physiology, and foods and nutrition majors. Major Codes: 08351, 08355, 08356, 13061.

Effects of physical activities on physiological functions of the body.

ENS 304L. Exercise Physiology Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Exercise and Nutritional Sciences 304.

Laboratory experiences in the application of exercises and the analysis of the results. (Formerly numbered Exercise and Nutritional Sciences 314.)

ENS 305. Measurement and Evaluation in Kinesiology (3) I, II

Prerequisites: Exercise and Nutritional Sciences 210 and one of the following: Biology 215, Economics 201, Psychology 270, Sociology 201, or Statistics 119. Limited to kinesiology majors. Major Code: 08351.

Testing and measurement for assessment and understanding of physical performance and for planning and evaluation of instruction in physical activity settings. Planning, implementation, and evaluation of tests.

ENS 306. Biomechanics of Human Movement (3) I, II

Prerequisite: Exercise and Nutritional Sciences 303. Limited to kinesiology majors (Major Code: 08351) and biology (emphasis in bioengineering) majors (Major Code: 04011).

Mechanical principles as applied to movement; analysis and application to selected motor skills.

ENS 307. Motor Learning and Performance (3) I, II

Prerequisites: Exercise and Nutritional Sciences 210, Psychology 101, and one of the following: Biology 215, Economics 201, Psychology 270, Sociology 201, or Statistics 119. Limited to kinesiology majors (Major Code: 08351).

Psychological parameters related to physical performance and the acquisition of motor skills.

ENS 320. Skin and Scuba Diving (2)

Prerequisites: Medical examination, waiver for hazardous procedures, pass swimming competency test. Concurrent registration in Exercise and Nutritional Sciences 320L.

Function and knowledge of underwater diving to include diving physiology, hyperbaric conditions, medical hazards, safety procedures associated with scuba diving, proper care and operation of equipment. Not open to students with credit in Exercise and Nutritional Sciences 323, 324, Biology 460, Oceanography 305, 306.

ENS 320L. Skin and Scuba Diving Laboratory (1)

Three hours of laboratory.

Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 320.

ENS 323. Advanced Scuba Diving (2)

Prerequisites: Exercise and Nutritional Sciences 320 or Openwater Scuba Certification, medical examination, and acceptable openwater diving equipment. Concurrent registration in Exercise and Nutritional Sciences 323L.

Theory, skills, and technique including underwater navigation, diving physics, diving physiology, diving medicine, diving safety. Qualifies for Advanced Diving Certificate from the National Association of Underwater Instructors. Not open to students with credit in Exercise and Nutritional Sciences 324, Biology 460, Oceanography 306.

ENS 323L. Advanced Scuba Diving Laboratory (1)

Three hours of laboratory.

Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 323.

ENS 324. Assistant Scuba Instructor (2)

Prerequisites: Exercise and Nutritional Sciences 323 or Oceanography 306, Master Diver Certification, medical examination, and acceptable openwater diving equipment. Concurrent registration in Exercise and Nutritional Sciences 324L.

Qualifies for Assistant Scuba Instructor Certificate from the National Association of Underwater Instructors.

ENS 324L. Assistant Scuba Instructor Laboratory (1)

Three hours of laboratory.

Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 324.

ENS 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.

ENS 335. Basic Movement Skills (2) I, II

Prerequisite: Credit or concurrent registration in Exercise and Nutritional Sciences 303. Limited to kinesiology and liberal studies majors. Major Codes: 08351 and 49015.

Terminology, performance, and analysis of elementary-level movement skill themes and concepts, educational gymnastics, rhythms, and dance.

ENS 341. Skill Competency in Physical Education (2) Cr/NC I, II

Four hours of activity.

Prerequisite: Credit or concurrent registration in Exercise and Nutritional Sciences 303.

Demonstrated skill and knowledge competencies in badminton, basketball, outdoor experience, physical fitness, self-defense, soccer, softball, swimming, tennis, volleyball, and one of the following: archery, dance, golf, gymnastics, football, racquetball and wrestling.

ENS 347A. Leadership for Kinesiology (2) I, II

Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 347B. Limited to kinesiology and liberal studies majors. Major Codes: 08351 and 49015.

Theory and development of leadership behavior of physical educators, emphasizing leadership qualities unique to diverse physical activity settings.

ENS 347B. Leadership for Kinesiology Activity (1) I, II

Two hours of activity.

Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 347A.

ENS 348. Special Physical Education (3) I, II

Prerequisite: Kinesiology or liberal studies upper division major status required.

Etiologies, characteristics, education programs, and activities for individuals with non-physical disabilities (e.g. mentally retarded, learning disabled, etc.).

ENS 350. Sport in Antiquity (3) I, II

Prerequisite: Upper division standing.

Athletics in ancient Greece and Rome. Role and scope of sporting competitions in ancient Greek and Roman cultures, and their influence on modern athletics.

ENS 351. Basic Coaching Theory (2) I

Prerequisites: Exercise and Nutritional Sciences 210, 265 and 265L.

Basic principles of coaching and conditioning for various sports. Defining actual physical and mental demands of a competitive activity. Coaching decisions concerning design of physical training programs for high school and club programs.

ENS 363. Corrective Physical Education (3) I, II

Prerequisites: Exercise and Nutritional Sciences 303 and 304.

Etiology, characteristics, and programs for children with corrective and/or physically handicapping conditions. Includes evaluating and implementing prescribed activities for individuals with these types of conditions.

ENS 365. Scientific Management of Sports Injuries (3) I, II

Prerequisites: Biology 201A; Exercise and Nutritional Sciences 265, 265L, 303, credit or concurrent registration in Exercise and Nutritional Sciences 306.

Pathomechanics and pathophysiology of soft tissue and bone injury as it relates to the identification and management of sport related injuries.

ENS 367. Clinical Evaluation of Sports Injuries Part I (2) I

Prerequisites: Credit or concurrent registration in Exercise and Nutritional Sciences 303 and 389A.

Theory of clinical evaluation of sports injuries techniques and scientific basis of techniques. Principles of systematic differential evaluation of upper extremity, cervical spine. (Not open to students with credit in Exercise and Nutritional Sciences 366.)

ENS 367L. Clinical Evaluation of Sports Injuries Part I (1) I

Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 367.

Practical experience in clinical evaluation of sports injuries techniques and scientific basis of techniques. Principles of systematic differential evaluation of upper extremity, cervical spine. (Not open to students with credit in Exercise and Nutritional Sciences 366L.)

ENS 368. Clinical Evaluation of Sports Injury Part II (2) II

Prerequisites: Exercise and Nutritional Sciences 367 and 367L.

Theory of clinical evaluation of sports injury techniques and scientific basis of techniques. Systematic differential evaluation process applied to lower extremities, thoracic, and lumbar spine and chest and abdominal injuries. (Not open to students with credit in Exercise and Nutritional Sciences 366.)

ENS 368L. Clinical Evaluation of Sports Injury Part II (1) II

Prerequisites: Exercise and Nutritional Sciences 367 and 367L. Concurrent registration in Exercise and Nutritional Sciences 368.

Practical experience in clinical evaluation of sports injuries techniques and scientific basis of techniques. Principles of systematic differential evaluation process applied to lower extremities, thoracic and lumbar spine and chest and abdominal injuries. (Not open to students with credit in Exercise and Nutritional Sciences 366L.)

ENS 388. Adapted Physical Education Laboratory (1-4) I, II

Three hours of laboratory per unit.

Prerequisite: Credit or concurrent registration in Exercise and Nutritional Sciences 348 or 363 or 367 and 367L; consent of instructor.

Supervised clinical experience working in the adapted physical education laboratory setting on campus with individuals with disabilities. Maximum credit four units.

ENS 389A-389B-389C-389D-389E-389F. Practicum in Athletic Training (1-1-1-1-1-1) I (389A, 389C, 389E) II (389B, 389D, 389F)

389A, 389B, 389C, 389D: Two hours of activity.

389E, 389F: Three hours of laboratory.

Prerequisites: 389A: Grade of B or better in Biology 212, Exercise and Nutritional Sciences 265, 265L, 289, application, letters of recommendation, and interview.

389B: Grade of B or better in Exercise and Nutritional Sciences 389A.

389C: Grade of B or better in Exercise and Nutritional Sciences 389B.

389D: Grade of B or better in Exercise and Nutritional Sciences 389C.

389E: Grade of B or better in Exercise and Nutritional Sciences 389D.

389F: Grade of B or better in Exercise and Nutritional Sciences 389E.

Practical training and clinical applications of basic and advanced techniques of athletic training. Emergency, preventative procedures treatment, and rehabilitation techniques to be performed in actual athletic training settings. Practicum experience offered in conjunction with clinical internship.

ENS 397. Contemporary Topics in Kinesiology (Credit to be arranged) (Offered only in Extension)

Prerequisites: Consent of instructor; bachelor's degree.

Study of specially selected problems in physical education and sport. Does not apply to undergraduate degrees or credentials.

ENS 398. Supervised Field Experience (1-3) Cr/NC I, II

Prerequisite: Consent of department chair. Limited to kinesiology and liberal studies majors. Major Codes: 08351 and 49015.

Supervised practical experience in the area of kinesiology. Maximum credit six units.

ENS 401A. Musculo-Skeletal Fitness (1) I, II

Prerequisites: Exercise and Nutritional Sciences 104A or 104B or 341; Exercise and Nutritional Sciences 304, 304L, 306. Concurrent registration in Exercise and Nutritional Sciences 401B.

Training techniques in areas of strength and flexibility. Examination of facilities and equipment, mechanics of strength and flexibility techniques, development of training program, basic physiology and review of current research in areas of strength and flexibility.

ENS 401B. Musculo-Skeletal Fitness Activity (1) I, II

Two hours of activity.

Prerequisites: Concurrent registration in Exercise and Nutritional Sciences 401A.

Circularepiratory endurance, muscular strength and endurance, selection and care of equipment and facilities, and programs in the areas of flexibility, weight training and aerobics.

ENS 412. Leading Group Aerobic Exercise (1) I, II

Two hours of activity.

Prerequisites: Exercise and Nutritional Sciences 303, 304, 304L.

Teaching group aerobic exercise including aerobic dance, step training, circuit training, and interval training. Students design and lead aerobic, strength, and flexibility segments of a group of aerobic exercise class.

ENS 431. Administration of Exercise and Fitness Program (2) I, II

Prerequisites: Exercise and Nutritional Sciences 303, 304, 304L.

Administration and management of corporate, private, university-based, and hospital-based exercise programs.

ENS 432. Exercise, Fitness, and Health (2) I, II

Prerequisites: Exercise and Nutritional Sciences 303, 304, 304L, 305. Concurrent registration in Exercise and Nutritional Sciences 432L.

Exercise testing, programming and leadership for healthy persons of different ages, capacities, and needs.

ENS 432L. Exercise, Fitness, and Health (1) I, II

Three hours of laboratory.

Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 432.

Practicum in exercise testing, programming and leadership for healthy persons of different capacities, and needs.

ENS 433. Exercise, Sport, and Aging (3) I, II

Prerequisites: Exercise and Nutritional Sciences 301 and 304.

Relationships between exercise, sport and human aging including physiological, psychological, sociological, health and program considerations. Aging is viewed developmentally with emphasis on the middle and later years.

ENS 434. Promoting Physical Activity and Health Behavior (3)

Prerequisites: Exercise and Nutritional Sciences 347A and 347B.

Theoretical approaches and personal, client, and population strategies for developing and maintaining health-related physical activity and associated behaviors.

ENS 441. Practicum: Physical Education Activities (2) I, II

Four hours of activity.

Prerequisites: Exercise and Nutritional Sciences 306, 347A, 347B.

Selection and care of equipment and facilities; analysis of skill; progression for skills, drills and the game; lead-up activities; safety; performance cues; terminologies; skill evaluations; tactics and strategies.

A. Sport Applications I

B. Sport Applications II

ENS 442A. Physical Education for Elementary Schools (2) I, II

Prerequisites: Exercise and Nutritional Sciences 335, 347A and 347B.

Objectives, curricula, activities, and application of basic scientific principles for the conduct of physical education in elementary schools.

ENS 442B. Physical Education for Elementary Schools Activity (1) I, II

Two hours of activity.

Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 442A.

ENS 445. Current Issues in Physical Education (2) I, II

Prerequisite: Exercise and Nutritional Sciences 441A.

Current issues relevant to physical education. Includes assessment, liability, curriculum standards, appropriate physical activity levels, and safety.

ENS 446A. Physical Education with Adolescents (2)

Prerequisites: Exercise and Nutritional Sciences 442A, 442B. Concurrent registration in Exercise and Nutritional Sciences 446B.

Basic requirements, principles, and concepts for conducting physical education with adolescents.

ENS 446B. Physical Education with Adolescents (1)

Prerequisites: Exercise and Nutritional Sciences 442A, 442B. Concurrent registration in Exercise and Nutritional Sciences 446A.

Application of basic requirements, principles, and concepts for conducting physical education with adolescents.

ENS 460. Professional Issues (1) Cr/NC I, II

Prerequisite: Senior standing in prephysical therapy specialization.

Current issues relevant for one preparing to enter an allied health profession.

ENS 461. Sport and Exercise Psychology (3)

Prerequisite: Exercise and Nutritional Sciences 307.

Psychological factors underlying behavior in sport and physical activity. Emphasis on personality and motivational factors.

ENS 462. Therapeutic Modalities for Sports Injuries (3) I

Prerequisites: Grade of B or better in Exercise and Nutritional Sciences 365 and 389A.

Theories and techniques for the design, implementation, evaluation, and application of rehabilitation modalities.

ENS 463. Principles and Techniques in Therapeutic Exercise (2) I, 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.

ENS 463L. Principles and Techniques in Therapeutic Exercise Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Concurrent registration in Exercise and Nutritional Sciences 463.

ENS 465. Seminar in Athletic Training (2)

Prerequisites: Grade of B or better in Exercise and Nutritional Sciences 365 and 389C.

Professional issues in athletic training discipline, including topics in organization and administration.

ENS 466. Clinical Pathology for Athletic Trainers (3) II

Prerequisites: Grade of B or better in Exercise and Nutritional Sciences 365 and 389C.

Clinical pathology associated with body systems, clinical recognition, management, and referral of non-orthopedic pathologies associated with physically active persons.

ENS 477. Therapeutic Practices of Kinesiotherapy (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.

ENS 478. Organization and Administration of Kinesiotherapy (2)

Prerequisites: Credit or concurrent registration in Exercise and Nutritional Sciences 487A.

Principles and practices of administration in kinesiotherapy.

ENS 487A. Kinesiotherapy Internship — Neurological (1) I, II

Prerequisites: Acceptance in the kinesiotherapy professional program and completion of competency checklist.

Clinical experience in medically supervised exercise programs for individuals with neuromuscular disorders.

ENS 487B. Kinesiotherapy Internship — Geriatric/Extended Care (1)

Prerequisites: Acceptance in the kinesiotherapy professional program and completion of competency checklist.

Clinical experience in extended care facilities, for geriatric population of severely physically disabled populations.

ENS 487C. Kinesiotherapy Internship — Fitness and Wellness (1)

Prerequisites: Acceptance in the kinesiotherapy professional program and completion of competency checklist.

Clinical experience in physical fitness facilities.

ENS 487D. Kinesiotherapy Internship — Psychiatric (1)

Prerequisites: Psychology 350; acceptance in the kinesiotherapy professional program and completion of competency checklist.

Clinical experience in psychiatric care facilities.

ENS 487E. Kinesiotherapy Internship — Cardiac Rehabilitation (1)

Prerequisites: Acceptance in the kinesiotherapy professional program and completion of competency checklist.

Clinical experience in medically supervised exercise programs for the rehabilitation of cardiopulmonary diseases.

ENS 487F. Kinesiotherapy Internship — Orthopedic (1)

Prerequisites: Exercise and Nutritional Sciences 487A and credit or concurrent registration in Exercise and Nutritional Sciences 477, 478.

Clinical experience in medically supervised exercise programs for individuals with orthopedic disorders.

ENS 496. Experimental Topics (1-4)

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

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

Prerequisite: Consent of department chair. Limited to kinesiology majors. Major Code: 08351.

Individual study. Maximum credit six units.

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

ENS 596. Selected Topics in Exercise and Nutritional Sciences (1-3) I, II

Selected topics in exercise and nutritional sciences. May be repeated with new content and approval of instructor. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's or master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

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



Finance

In the College of Business Administration

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Faculty

Emeritus: Block, Bost, Cherin, Fisher, Gitman, Hippaka, Houston, Hungate, Hutchins, Nye, Reints, Sachdeva, Schmier, Short, Vandenberg, Warschauer, Wilbur

Chair: Varaiya

Professors: Badrinath, Do, Ely, Haddad, Omberg, Salehizadeh, Song, Sterk, Varaiya

Assistant Professors: Kim, Pukthuanthong, 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.

Finance. All forms of human endeavor involve finance to some degree. Within our economic system, finance is concerned with capital, which is money or property owned or used in business. Finance majors study both the sources and the uses of capital. The finance curriculum revolves around the valuation process in a free market system. Once an individual or company can value various alternatives, the allocation of resources and the decision process in business becomes much simpler.

Students who are interested in business should have a thorough understanding of the financial process. Upon graduation, students accept a wide variety of positions with business in general. The curriculum of the finance major is designed to give the student breadth in a variety of fields in addition to finance and business.

Employment prospects for graduates with finance majors are very good and forecasts remain encouraging. Graduates are typically found in six types of employment: large and small industrial firms (manufacturers of automobiles, steel, household appliances, and electronic equipment); service oriented firms (electric power, real estate and retail firms); financial institutions (banks, state and federally chartered savings and loan associations, and insurance companies); nonprofit enterprises (universities, labor unions, and foundations); and private businesses.

The diversity of entry level positions obtained by finance majors makes it difficult to describe a typical position. A major in finance does not limit career potential to banking or to any single area of business. A large number of individuals go to work for industrial companies in a variety of entry level positions that allow them to develop into top decision-making positions with those companies. A significant number of chief executive officers and other top officers of corporations have followed the "finance path" to the top.

Financial Services. Although the financial services major is based on many of the same analytical skills and theoretical foundations as the finance major, it is designed specifically to prepare students for careers in one of the segments of the financial services industry: securities, banking, insurance, real estate finance and personal financial planning. It is very common for single firms to own subsidiaries in each of these areas, so it is important for graduates entering these fields to be familiar with all aspects of these important financial sectors.

Graduates can look forward to analytical, managerial or sales careers in the financial services industry. Sales careers include insurance and securities sales. Analytical careers include loan and security analysis and personal financial planning. Managerial careers include management in each of the component industries.

Real Estate. The vision of the real estate program at SDSU is to create a ready-day-one educational program for students who aspire to become future leaders and professionals within the multifaceted real estate industry. The changing nature of today's real estate market requires that graduates from university real estate programs receive a complete and broad approach to this field. Graduates with a major in real estate should be capable of making a wide variety of management decisions concerning real estate and related land resources. This includes the ability to utilize new economic concepts, understand changing social concerns, and apply up-to-date analytical tools to the process of real estate decision making. SDSU's program in real estate provides students with analytical skills, technical competence to perform market analyses, and a better understanding of the tools necessary to perform in today's complex real estate and land markets. This is in addition to the conventional knowledge required for a license. It is the goal of the real estate program at SDSU to provide a high level of education, and thus prepare its graduates for job opportunities in a variety of organizations, large and small, public and private.

With more than two billion acres of land in the United States, important public and private decisions must be made every day about the use, management, and disposition of this vast real estate acreage. This means job opportunities for the real estate major are created in a variety of areas such as valuation, development, financing, brokerage, market analysis, and public regulation. Job opportunities in real estate may also exist even in times of economic uncertainty. For example, during recent times many enterprises, large and small, have turned their attention to maximizing returns generated by their often extensive real estate holdings. This has created a demand for a new real estate expert—one who can manage asset disposition, value existing properties, upgrade underutilized property, and negotiate lease terms and conditions. In addition, the changing nature of the financial environment in which real estate markets must operate has created a demand for people not only with basic real estate training, but also with good general business and financial skills. SDSU's real estate program recognizes this changing real estate environment and prepares majors for these diverse opportunities.

Business Honors Program

The Business Honors Program offers excellent upper division business students the opportunity to explore issues in our local, regional, and global business environments focusing on the social and ethical responsibility that business has to the community and society. Honors students will enroll in a one unit business honors seminar each semester. During their enrollment they will participate in activities to promote their academic and personal growth, documenting their work in a written portfolio.

Generally, students should apply to this program at the time of application to upper division business. Applicants must submit an essay with their application. Applicants must have a 3.6 cumulative GPA or good standing in the University Honors Program. Students not meeting these requirements may petition for admission to the program. Successful completion of the Business Honors Program will be recognized at graduation. Contact Dr. Carol Venable, School of Accountancy, for more information about this program.

Statement on Computers

Before enrolling in upper division courses in the College of Business Administration, students must be competent in the operation of personal computers, including word processing and spreadsheets. Business students are strongly encouraged to have their own computers capable of running word processing, spreadsheet, presentation, e-mail, and Internet applications such as those found in packages sold by major software publishers. Availability of on-campus computing resources can be limited due to increasing demand across the University.

Retention Policy

The College of Business Administration expects that upper division students will make reasonable academic progress towards the degree. Students earning less than a 2.0 average in their classes for two or more semesters may be removed from the upper division major and required to declare a non-business major.

Transfer Credit

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

Upper Division: It is the policy of the San Diego State University College of Business Administration to accept *upper division transfer credits* where (a) the course content, requirements, and level are equivalent to San Diego State University courses and (b) where the course was taught in an AACSB International—The Association to Advance Collegiate Schools of Business accredited program. Exceptions require thorough documentation evidencing the above standards.

Impacted Program

The majors in the Department of Finance are impacted. Before enrolling in any upper division courses in business administration, students must advance to an upper division business major and obtain a business major code. To be admitted to an upper division business major (accounting, finance, financial services, real estate, information systems, management, or marketing), students must meet the following criteria:

- Complete with a grade of C or higher: Accountancy 220 and 230; Finance 240; Information and Decision Systems 180 and 290 (290 is not required for the accounting major); Economics 101 and 102; Mathematics 120 (or other approved calculus course); and either Statistics 119 or Economics 201. These courses cannot be taken for credit/no credit (Cr/NC);
- Complete a minimum of 60 transferable semester units;
- Have a cumulative GPA of 2.9;

Students who meet all requirements except the GPA may request to be placed on the waiting list. Students on the waiting list will be admitted on space-availability basis only. Contact the Business Advising Center (BA-448), 619-594-5828, for more information.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

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 220, 230; 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 Cr/NC; the minimum grade in each class is C. **Additional progress requirements must be met before a student is admitted to an upper division major.**

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

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, 328, 421, 425, 427. A "C" (2.0) average is required in the courses stipulated here for the major.

A minimum of 60 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration, economics, and statistics. 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
(Major Code: 05043)**

A minor is not required with this major.

Preparation for the Major. Finance 240; Accountancy 220, 230; 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 Cr/NC; the minimum grade in each class is C. **Additional progress requirements must be met before a student is admitted to an upper division major.**

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. Thirty-nine to 40 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, 427, 431, 435*, 445, 523; Accountancy 326; Economics 320 or 422, 490; and Marketing 377. A "C" (2.0) average is required in the courses stipulated here for the major.

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. Finance 240; Accountancy 220, 230; 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 Cr/NC; the minimum grade in each class is C. **Additional progress requirements must be met before a student is admitted to an upper division major.**

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

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 230; Finance 321, 323, 326, 327, and 329; Statistics 119.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University. Students with a major in the College of Business Administration, Hospitality and Tourism Management, or International Business may not complete a minor in the College of Business Administration.

Students must officially declare the minor before taking any upper division business courses. **Students must meet the prerequisites for the minor in effect at the time that they declare the minor.** The current prerequisites for admission to the finance minor include completion of the following courses with a grade of C or better: Economics 101, 102, and a three unit course in statistics (Statistics 119 is recommended); completion of the General Education requirements in Communication and Critical Thinking; completion of an additional nine units in the department of the student's major, including at least six units of upper division courses. Students must also meet the GPA requirement in effect at the time that they declare the minor. Contact the Business Advising Center (BA-448) for admissions criteria and procedures.

Real Estate Minor

The minor in real estate consists of a minimum of 18 units to include Economics 102; Finance 240, 331, 335; and six units selected from Finance 333, 431, 433, and 435.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University. Students with a major in the College of Business Administration, Hospitality and Tourism Management, or International Business may not complete a minor in the College of Business Administration.

Students must officially declare the minor before taking any upper division business courses. **Students must meet the prerequisites for the minor in effect at the time that they declare the minor.** The current prerequisites for admission to the real estate minor include completion of the following courses with a grade of C or better: Economics 101, 102, and a three unit course in statistics (Statistics 119 is recommended); completion of the General Education requirements in Communication and Critical Thinking; completion of an additional nine units in the department of the student's major, including at least six units of upper division courses. Students must also meet the GPA requirement in effect at the time that they declare the minor. Contact the Business Advising Center (BA-448) for admissions criteria and procedures.

Personal Financial Planning Certificate

The purpose of this program is to provide a strong educational basis for persons desiring careers in the field of personal financial planning. Two categories of students are admitted: Matriculated students who have been admitted to an upper division College of Business Administration major and nonmatriculated students who work in the financial services industry, who may take the courses on a space-available basis.

This certificate is a program registered with the Certified Financial Planner Board of Standards, Inc.

Prerequisites to the program include Finance 240; Accountancy 230; Economics 101, 102; and Statistics 119. (15 units.)

The certificate requires 23 units to include Accountancy 503, Finance 323, 327, 421, 445, 522, 523, and 589. In order to qualify for this certificate a "B-" (2.7) average in the upper division certificate courses is required.

The adviser for the certificate is Dr. Thomas M.D. Warschauer, Department of Finance. All course units may be used for business majors where applicable. Courses in the certificate may not be counted toward the minor.

Courses (FIN)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSE

FIN 240. Legal Environment of Business (3) I, II

Business legal system, sources of law, social and ethical influences, judicial and administrative systems, contracts, torts, bankruptcy, agency, business organizations, securities regulation, regulation of property, and protection of intellectual property interests. (Formerly numbered Finance 140.)

UPPER DIVISION COURSES (Intended for Undergraduates)

FIN 300. Personal Finance (3)

Prerequisite: Upper division standing.

Understanding and awareness of financial decisions students will make during their lives, and services and products available to them in implementing these decisions. This course is open to non-business majors.

FIN 321. Managerial Economics (3) I, II

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration.

Role of economic analysis in management decisions. Study of demand, cost, supply theories from a business viewpoint. Emphasis on managerial decision making.

FIN 323. Fundamentals of Finance (3) I, II

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration. **Proof of completion of prerequisite required:** Change of major form or other evidence of acceptable major code.

Objectives of financial management. Financing the business enterprise. Internal financial management. Introduction to the cost of capital, valuation, dividend policy, leverage, international finance, and the techniques of present value and its applications. Sources of capital.

FIN 325. Intermediate Finance (4) I, II

Prerequisite: Finance 323 with minimum grade of C.

Capital expenditure decision process. Measuring and evaluating benefits and costs. Cost of capital and the evaluation process. Capital rationing problems. Risk and uncertainty in decision process. Agency theory, option pricing, and arbitrage pricing in decision process.

FIN 326. Financial Institutions Management (3) I, II

Prerequisite: Finance 323 with minimum grade of C.

Management of financial institutions including savings and loan associations, mutual savings banks, credit unions, private pension plans, brokerage houses, investment companies, consumer credit institutions, federal credit agencies, and commercial banks. Emphasis on internal financial management of these institutions.

FIN 327. Investments (3) I, II

Prerequisite: Finance 323.

Measures of risk and return. Methods of security analysis, valuation, and capital asset pricing model. Portfolio theory and management; stocks, bonds, options, and futures; hedging; mutual funds and partnerships; and investment taxation.

FIN 328. Entrepreneurial Finance (3) I, II

Prerequisite: Finance 323.

Financial management tools and techniques over the stages of life cycle of a venture: development, start up, rapid growth and maturity. Linkages between market opportunity, competitive position, composition, and sources of financing of the ventures.

FIN 329. International Business Finance (3) I, II

Prerequisite: Finance 323.

Foreign exchange markets and instruments; international financial institutions; trade and balance of payments; exchange rate behavior and currency-risk hedging; cross-border investment; applications to management of international business.

FIN 331. Real Estate Essentials (3) I, II

Prerequisite: Completion of lower division course requirements in business major or minor.

Fundamental operations of the real estate market; principles of real property valuation, financing, law, investment, brokerage, management, and development.

FIN 333. Law of Real Property (3) II

Prerequisite: Finance 331.

Legal theory and practice of estates in land; landlord and tenant relationships; land transactions; mortgages and trust deeds; easements; land use; ownership rights in land; environmental law.

FIN 335. Land Markets and Real Estate Analysis (3) I, II

Prerequisite: Finance 331.

Theory and analysis of land utilization. Location analysis and determinants of land use patterns. Real estate market behavior and economic growth. Basic real estate investment analysis. Public controls and policies affecting land markets.

FIN 421. Portfolio Management and Security Analysis (3)

Prerequisite: Finance 327.

Market efficiency. Risk and utility analysis. Portfolio theory. Security analysis under modern investment theory. Advanced debt management and options techniques. Financial options and futures. Asset allocation and performance evaluation. Limited partnership investment analysis.

FIN 423. Financial Analysis and Management (4) I, II

Prerequisites: Finance 321 and 325. Strongly recommended: Accountancy 326.

Integration of various aspects of finance, application of financial theory. Financial decision making in the firm. Case study.

FIN 425. Business Forecasting (3)

Prerequisite: Finance 323.

Business fluctuations; forecasting, and related problems confronting the business firm; forecasting techniques; specific forecasts. The use of forecasts in the firm.

FIN 427. Derivatives and Financial Risk Management (3)

Prerequisite: Finance 323.

Introduce derivative instruments such as futures, options and swaps, nature of their markets and pricing methods. Applications of those instruments for hedging risks in equities, commodities, and exchange rates.

FIN 431. Real Estate Finance (3) I

Prerequisite: Finance 331.

Methods of financing real estate; sources of funds; governmental financial agencies; feasibility analysis for various types of properties.

FIN 433. Theory of Real Property Value (3) II

Prerequisite: Finance 331.

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

FIN 435. Real Estate Investment Analysis (3) I, II

Prerequisites: Finance 335 and Finance 431 or 433.

Theories and methods of investment analysis applied to real estate. Integration of various aspects of real estate from the investors perspective. Use of computer models for investment decision making.

FIN 445. Estate Planning (3)

Prerequisite: Finance 323.

Fundamentals of estate planning, social and family implications of federal/state taxation of transfers of wealth by gift or at death. Study of trusts, conservatorships, guardianship and postmortem planning. How planning is affected by business assets, employee benefits, and insurance.

FIN 496. Selected Topics in Finance (1-4)

Prerequisite: Consent of department chair.

Selected areas of concern in finance. See *Class Schedule* for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

FIN 498. Investigation and Report (1-3) I, II

Prerequisites: Senior standing and consent of instructor.

A comprehensive and original study of a problem connected with finance under the direction of one or more members of the finance staff. May be repeated with new content. Maximum credit six units.

FIN 499. Special Study (1-3)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

FIN 522. Individual Insurance Management (3) II

Prerequisites: Undergraduate: Completion of lower division requirements for the major. Graduate: Completion of prerequisite core.

Economic, legal, social, and ethical considerations of individual, business and group insurance including life, health, property, and liability insurance. Risk exposure and policy analysis.

FIN 523. Employee Benefit Planning (2) 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.

FIN 589. Personal Financial Planning (3) I

Prerequisite: Finance 323.

Financial planning process including data gathering, cash flow and debt considerations, goal programming (including retirement and education funding), integration, plan formulation, and implementation. Practice management considerations including establishment of ethical and legal, client and professional relationships.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.



French

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Faculty

Emeritus: Cox, Ghilbert, Jackson, Max, Nelson, Palmer

Chair: Benkov

Professors: Benkov, Edson, Loughrin-Sacco, Lyman-Hager, Schorr

Associate Professors: Cornwell, Donadey

Lecturers: Ransom, Wilson

Offered by the Department of European Studies

Master of Arts degree in French.

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

Major in European studies, with emphasis in French.

See European Studies.

Major in international business, with emphasis in French.

See International Business.

Minor in French.

The Major

A student who majors in French learns to speak the language, to read French literature in its original form, and to interact with members of an important cultural community. The French major can help prepare a student for a career in education, business, or the arts.

Students generally choose to major in French in order to enrich their lives rather than to train for a career, but many employers recognize the value of a well-rounded liberal arts education. The increasing involvement of the United States in international business has created new opportunities for people interested in international management. Employers look for knowledge of a foreign country's culture and language together with training in economics or business. A major in French combines effectively with a second major or minor in business, economics, political science, the humanities, or another language area study.

A significant number of French majors choose a career in teaching. Recent studies indicate that the demand for qualified teachers is rising. With a secondary teaching credential, one can teach at the high school level or pursue more advanced study in preparation for a university career, either in French or in related subjects such as linguistics or comparative literature.

Students majoring in French are strongly encouraged to participate in CSU-IP (California State University International Programs) and other approved study abroad programs in French-speaking countries, such as the SDSU semester in Paris.

Advising

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

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.

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

International Experience Requirement. All French majors are required to complete an approved study abroad program in a French-speaking country consisting of a minimum of six units (90 hours). However, French majors are strongly encouraged to complete a more extensive abroad experience by participating in a semester or an academic year program. To fulfill the International Experience Requirement, French majors must enroll in a study abroad program approved by the department. Unapproved study abroad programs will not meet the international experience requirement for the major.

Major. A minimum of 27 upper division units in French to include French 301, 302, 305A, 305B, and 15 upper division electives in French to include at least one 500-level course. No more than one 400-level French course taught in English may be applied to the major.

French Minor

The minor in French consists of a minimum of 15 units taught in French, nine units of which must be in upper division French courses. Any course taught in English needs department approval to apply to the minor requirements.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Interdisciplinary Studies in Three Departments

Students selecting French as one of their departments in this major must complete all lower division preparation for the major or equivalent competency, and choose from among French 301, 305A, 305B, 421 and 422.

Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of French to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete French 201 or 210 or the equivalent level of competency. The usual sequence of coursework is French 100A, 100B, 201, 210, 220, and 221. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

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

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. **Four years** of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the language requirement.

Courses (FREN)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

Native speakers of French will not receive credit for taking lower division courses except with advance approval from the department.

All lower division courses in French are taught in French.

No credit will be given for lower division courses taken after successfully completing any upper division French course taught in French.

No credit will be given when French 100A, 100B, or the 200 series are taken out of sequence.

FRENC 100A. Elementary French I (5) 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.

FRENC 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.

FRENC 200. Intermediate French in Paris (3) II

Four hours per week in a 12 week period in the Paris Semester.

Development of intermediate level proficiency skills through lecture and work in small groups. Offered only through the Paris Semester study abroad program. This course satisfies the language graduation requirement.

FRENC 201. Readings in French (3) I, II

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

French majors, minors, and International Business majors are encouraged to enroll concurrently in French 210. Emphasis on reading. See *Class Schedule* for emphasis offered: Readings in French Culture, Readings in Francophone Culture, or Readings in Business French.

FRENC 210. French Grammar (3) I, II

Prerequisite: French 100B with a grade of C or better or three years of high school French.

French majors, minors, and International Business majors are encouraged to enroll concurrently in French 201.

Comprehensive survey of French grammar at the intermediate level. Analysis and use of typical French structures.

FRENC 220. Grammar of Spoken French (3) I, II

Prerequisite: French 210.

French majors, minors, and International Business majors are encouraged to enroll concurrently in French 221.

Analysis of grammar and use of modern French through study of cultural materials, for proficiency in oral communication.

FRENC 221. Writing French (3) I, II

Prerequisite: French 210.

French majors, minors, and International Business majors are encouraged to enroll concurrently in French 220.

Emphasis on written composition: study of a variety of prose models and practice in writing.

FRENC 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division courses in French are taught in French unless otherwise stated.

French 301 is not open to students who hold a French *baccalauréat*. French 301 and 302 may not be taken concurrently or out of sequence.

FRENC 301. Advanced Grammar and Composition (3) 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.

FRENC 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.

FRENC 304. Phonetics and Oral Proficiency (3) I

Two lectures and two hours of activity.

Prerequisite: Upper division standing in French.

Phonetic theory, listening, intonation and transcription practice, corrective phonetic and intonation exercises. Study of varieties of Francophone oral expression.

FRENC 305A. Survey of French Literature (3) I

Prerequisites: Twelve units of 200-level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors.

Important movements, authors, and works in French literature from the Middle Ages to the Revolution.

FRENC 305B. Survey of French Literature (3) II

Prerequisites: Twelve units of 200-level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors.

Important movements, authors, and works in French literature from the Revolution to present.

FRENC 400. Advanced French in Paris (3) II

Prerequisites: Twelve units of 200-level French.

Development of advanced level proficiency skills through writing and speaking. Offered only through the Paris Semester study abroad program.

FRENC 421. French Civilization (3) I

Prerequisites: Twelve units of 200-level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors.

French civilization from Middle Ages to the present. Artistic, intellectual achievements and cultural movements.

FRENC 422. Contemporary France (3) II

Prerequisites: Twelve units of 200-level French, and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for French majors.

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

FRENC 423. Commercial French (3) II

Prerequisite: French 301. **Proof of completion of prerequisite required:** Copy of transcript.

French commercial practices and language, the enterprise, correspondence, advertising, telecommunications, banking, transportation, import-export, insurance, accounting, stock market, preparation for the *Certificat* offered by the Paris Chamber of Commerce.

FRENC 424. French Cinema and Theory (3)

Two lectures and two hours of activity.

Prerequisites: Twelve units of lower division French. General Education students must also have completed Foundations II.C. Humanities.

French cinema emphasizing social, political, and cultural changes in modern France. Topics include film theory, the new wave, history in cinema, influence of feminism, French colonialism, race, class, and gender in modern culture. Taught in English.

FRENC 465. Africa in Literature and Film (3)

(Same course as Africana Studies 465.)

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

African cultural history through literature and film. Consistency/variety of African cultural expressions and conventions in literature and film. Taught in English. (Formerly numbered French 425.)

FRENC 496. Topics in French Studies (1-4)

Topics in French literature, culture and linguistics. May be repeated with new content. Maximum credit nine units. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. May be taught in English. See *Class Schedule* for specific content.

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

Prerequisites: French 302, 305A, 305B.

Individual study. Maximum credit six units. This course is intended only for students who are currently enrolled in or who already have credit for all upper division courses in French available in any given semester.

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

FRENC 501. Translation (3)

Prerequisite: French 302.

Stylistic comparison of French and English through translation of a variety of prose styles from English to French and from French to English.

FRENC 520. French and Francophone Literary Studies (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.

FRENC 530. French and Francophone Cultural Studies (3)

Prerequisites: French 302 and 421 or 422.

Specialized study of artistic and intellectual trends, customs, and politics in French and Francophone culture. May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

FRENC 596. Topics in French Studies (1-4)

Prerequisite: French 302.

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

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

General Mathematics Studies

In the College of Arts and Letters

OFFICE: Extended Studies Center 303

TELEPHONE: 619-594-2225

FAX: 619-594-6530

Faculty

Chair: McClish

Lecturers: Morgan, Quan

Adjunct: Keesey

Offered by the Department of Rhetoric and Writing Studies

Courses in general mathematics studies.

Major or minor work in general mathematics studies is not offered.

General Information

The principal role of the General Mathematics Studies program is to prepare students to satisfy the CSU Entry Level Mathematics requirement and to prepare students to succeed in their GE entry level Mathematics course. Receiving a credit in General Mathematics Studies 91 or 99C satisfies the ELM requirement* as well as the Mathematics Placement Examination, Part IA (intermediate algebra) requirement – a prerequisite for students wishing to enroll in most entry level mathematics and statistics courses. For more information on these mathematics requirements, refer to the "Graduation Requirements" section of this catalog.

The General Mathematics Studies program offers one unit workshops in geometry and other selected topics in mathematics.

The units awarded to a student who earns a grade of "Credit" in a General Mathematics Studies course are not applicable to the baccalaureate degree.

* The ELM requirement is satisfied by these courses *only if* the student has already attempted and failed the ELM.

Courses (GMS)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES (Non-Baccalaureate Credit)

General mathematics studies courses numbered below 100 may not be used to satisfy general education or graduation requirements.

GMS 90. Fundamentals of Mathematics (3) Cr/NC/RP I, II, S

Prerequisite: Appropriate score on the CSU Entry-Level Mathematics Examination (ELM), the General Mathematics Studies diagnostic test, or other standardized mathematics examination.

Review of arithmetic and elementary algebra; topics from geometry covered in adjunct workshops (General Mathematics Studies 98A). Students earning "Cr" (credit) should enroll in General Mathematics Studies 91. Students earning "RP" (report in progress) go to specially designated sections of General Mathematics Studies 91. Students earning "NC" (no credit) should repeat General Mathematics Studies 90. May be repeated with consent of instructor. Maximum credit six units. General Mathematics Studies 90 is equivalent to General Mathematics Studies 99A. (Formerly numbered General Mathematics Studies 90A.)

*GMS 91. Intermediate Algebra (3) Cr/NC I, II, S

Prerequisites: Credit in General Mathematics Studies 90 or 99A or appropriate score on the ELM.

A review of intermediate algebra skills. Topics include polynomials, rational and radical expressions, complex numbers, linear and quadratic equations (and graphs), systems of equations, set and function notation, conic sections, exponential and logarithmic functions, and sequences and series. Credit in General Mathematics Studies 91 satisfies the Mathematics Placement Examination, Part IA and Entry Level Mathematics Examination requirements.

GMS 98. Mini-Course: Selected Topics (1) Cr/NC

Assorted short courses which will cover a variety of general mathematics skills through intensive lectures and laboratory work.

Suggested topics: Communication skills, research tools, and learning skills. See *Class Schedule* for specific content. Credit earned in courses from this series is not applicable to a bachelor's degree.

A. Learning Skills

B. Communication Skills

GMS 99A. Fundamentals of Mathematics (4) Cr/NC/RP I, II

Three lectures and one hour of activity.

Prerequisite: Appropriate score on the CSU Entry-Level Mathematics Examination (ELM), the General Mathematics Studies diagnostic test, or other standardized mathematics examination and freshman class standing.

Review of arithmetic and elementary algebra; topics from geometry covered in adjunct workshops (General Mathematics Studies 98A). Students attend mandatory weekly reinforcement workshops one hour each week in mathematics laboratory. Students earning credit in General Mathematics Studies 99A enroll in General Mathematics Studies 99C the next semester, students earning an "RP" (report in progress) enroll in General Mathematics Studies 99C or specially designated sections of General Mathematics Studies 91, and students earning "NC" (no credit) enroll in General Mathematics Studies 90 or 99A in their next semester. General Mathematics Studies 99A is equivalent to General Mathematics Studies 90.

*GMS 99C. Intermediate Algebra (4) Cr/NC

Three lectures and one hour of activity.

Prerequisite: Grade of "Cr" (credit) in General Mathematics Studies 99A or appropriate score on ELM or General Mathematics Studies diagnostic test and freshman class standing.

For freshmen who have attained "Cr" (credit) in General Mathematics Studies 99A or whose ELM or diagnostic score indicates that this is the appropriate level for them, but who have not yet satisfied the 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.

General Studies

The university offers a number of courses which are not part of a regular departmental curriculum. They provide students with opportunities for achieving academic credit through interdisciplinary and nontraditional coursework.

General Courses (GEN S)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

GEN S 100. University Seminar (1) Cr/NC

Prerequisite: Open only to freshmen.

Provides opportunities to interact with faculty in a small group setting. Students acquire study and interpersonal skills for academic and personal success. Special sessions are offered featuring campus resources including library, advising, career, health and wellness services.

- A. University Seminar
- B. Learning in Communities
- C. Living/Learning Community

GEN S 130. Child and Adolescent Development from a Cultural Perspective (3)

Theories of human development using a cultural/ecological framework applied to case studies and direct observations. Open only to liberal studies majors.

GEN S 200. Professional Experience and Community Service (1-3) Cr/NC

Prerequisites: Twelve units of college credit, minimum grade point average of 2.0, concurrent participation in professional or community service activity, and approval of course contract.

Academic work designed with faculty approval to complement concurrent paid or unpaid professional or community service experience. Information and course contract forms available in Division of Undergraduate Studies, AD-101. Applications must be submitted to the division prior to the end of the first week of classes. May be used to satisfy major or minor requirements only upon written approval of department chair. No combination of General Studies 200 and 400 in excess of six units may be counted for credit toward a bachelor's degree.

GEN S 250. Interdisciplinary Topics (1-4)

Interdisciplinary selected topics course. To enroll contact the faculty adviser of the department offering the course. May be repeated with new content. Maximum credit four units.

GEN S 260A-260B-260C. Composing Identities (3-3-3)

Prerequisite for 260A: Satisfaction of the SDSU writing competency requirement. (See Graduation Requirements section of catalog.) **Proof of completion of prerequisites required:** Copy of EPT or competency scores or verification of exemption; proof of credit (Cr) in Rhetoric and Writing Studies 92A or 92B or 97.

Interdisciplinary course that explores the rich complexity of human identity in diverse cultures. Nine-unit package taught by three faculty members, emphasizes discussion seminars and active learning, including a community-based service learning project. See *Class Schedule* for specific content. General Studies 260A not open to students with credit in Africana Studies 120, Chicana and Chicano Studies 111B, English 100, Linguistics 100, Rhetoric and Writing Studies 100, 101, or higher-numbered composition course. (General Studies 260A formerly numbered General Studies 250A entitled Composing Identities: Writing. General Studies 260B formerly numbered General Studies 250B entitled Composing Identities: Humanities. General Studies 260C formerly numbered General Studies 250C entitled Composing Identities: Social and Behavioral Sciences.)

GEN S 260D-260E-260F. Imagining Communities (3-3-3)

Prerequisite for 260D: Satisfaction of the SDSU writing competency requirement and General Studies 260A or Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or Linguistics 100 or Rhetoric and Writing Studies 100 or 101.

Interdisciplinary exploration of diverse human communities as they are imagined, expressed, and transformed. Nine-unit package taught by three faculty members, emphasizes discussion seminars and active learning, including a community-based service learning project. See *Class Schedule* for specific content. General Studies 260D not open to students with credit in Africana Studies 200, Chicana and Chicano Studies 200, English 200, Linguistics 200, or Rhetoric and Writing Studies 200. (General Studies 260D formerly numbered General Studies 250D entitled Imagining Communities: Writing. General Studies 250E formerly numbered General Studies 250E entitled Imagining Communities: Humanities. General Studies 260F formerly numbered General Studies 250F entitled Imagining Communities: Social and Behavioral Sciences.)

GEN S 275. Honors Special Study (1)

For further information contact the Division of Undergraduate Studies.

Prerequisite: Admission to the University Honors Program.

Special study associated with a lower division course offered as an honors section, and serving as an extension of the course.

UPPER DIVISION COURSES (Intended for Undergraduates)

GEN S 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.

GEN S 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.

GEN S 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.

GEN S 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.

GEN S 350. Interdisciplinary Topics (1-4)

Interdisciplinary selected topics course. To enroll contact the faculty adviser of the department offering the course. May be repeated with new content. Maximum credit four units.

GEN S 400. Professional Experience and Community Service (1-3) Cr/NC

Prerequisites: Upper division standing, minimum grade point average of 2.0, concurrent participation in professional or community service activity and approval of course contract. Completion of prerequisites required.

Academic work designed with faculty approval to complement concurrent paid or unpaid professional or community service experience. Information and course forms available in Division of Undergraduate Studies, AD-101. Applications must be submitted to the division prior to the end of the first week of classes. May be used to satisfy major or minor requirements only upon written approval of department chair. No combination of General Studies 200 and 400 in excess of six units may be counted for credit toward a bachelor's degree.

GEN S 410. Civilization Through Travel-Study (2-3)

Prerequisite: Upper division standing.

Civilization through faculty-supervised foreign travel-study. Requires lecture attendance, excursions and site visits, examinations and written reports.

GEN S 413. Multicultural Aspects of Social Institutions (3) I, II

Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences and the Honors Program curriculum (excluding Honors Thesis).

Discussion of various social institutions from multicultural and interdisciplinary perspectives. (Formerly numbered General Studies 350 entitled "Honors: Social Institutions.")

GEN S 420. Disability and Society (3) I, II

Prerequisites: Psychology 101, Sociology 101, or Anthropology 101, and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences.

Range of human experience of individuals with disabilities: attitudes toward individuals and interrelationship between societal institutions and needs of people with disabilities; historical response to these needs and contemporary issues with particular emphasis on normalization, integration, and community living.

GEN S 450. Life and Culture Semester Abroad (3)

Prerequisites: Upper division standing and completion of the General Education requirement in Foundations II.C., Humanities.

Life and culture of a foreign country through an approved "semester abroad" program sponsored by an academic department or program at SDSU. Requires lecture attendance, excursions and site visits, examinations and written reports. See *Class Schedule* for geographic location.

GEN S 490A. Honors Senior Thesis (3)

Prerequisite: Completion of the honors program required course sequence.

Conventions of scholarly writing as appropriate for honors theses. Analysis of specific disciplinary texts. Defining questions, drafting, and revising manuscripts.

GEN S 490B. Honors Senior Thesis (3) Cr/NC

Prerequisite: General Studies 490A with grade of C or higher.

Conventions of scholarly writing as appropriate for honors theses. Analysis of specific disciplinary texts. Defining questions, drafting, and revising manuscripts.

Geography

In the College of Arts and Letters

OFFICE: Storm Hall 323
TELEPHONE: 619-594-5437
FAX: 619-594-4938

Faculty

Emeritus: Blick, Eidemiller, Fredrich, Getis, Greenwood, Griffin, Johnson, Keen, Kiewiet de Jonge, McArthur, O'Brien, Pryde, Quastler, Stutz, Taylor, Wright, Yahr

Chair: O'Leary

Professors: Aguado, Aitken, Ford, Hope, Jankowski, O'Leary, Rey, Stow, Weeks

Assistant Professors: Bosco, Pohl, Tague, Tsou

Offered by the Department

Doctor of Philosophy degree in geography.

Master of Arts degree in geography.

Master of Science degree in geography.

Concentration in geographic information science.

Concentration in watershed science.

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

Emphasis in methods of geographical analysis.

Emphasis in natural resource and environmental geography.

Emphasis in physical geography.

Emphasis in urban and regional analysis.

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

Emphasis in geographic information science.

Minor in geography.

Certificate in geographic information science.

The Stephen and Mary Birch Foundation Chair in Geographical Studies

The Stephen and Mary Birch Foundation Chair in Geographical Studies was created through the Birch Foundation's grant to the 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, was the second holder of the Chair.

The Major

Geography is the study of spatial aspects of the physical environment, human activities and landscapes, and the nature of their interactions. Geographers draw upon theories from both the physical and social sciences. As physical scientists, they study the processes and resulting features of the earth's surface, such as vegetation, climate, soils, landforms, and resources. As social scientists, geographers explore such topics as the arrangement of societies on the earth's surface, land use patterns, urbanization, resource and energy usage, and environmental conservation.

The Department of Geography offers a broad range of fields from which to select an emphasis. These include physical geography—focusing on scientific explanations of the earth's physical features and processes; natural resource and environmental geography—concerned with human impacts on the earth; urban and regional analysis—dealing with the form of cities and the dynamics of regional systems; methods of geographical analysis—providing a background in cartography, geographic information systems, remote sensing and spatial statistics. A comprehensive program is offered in general geography—encompassing topics from all of the emphases.

The department also offers a Certificate in Geographic Information Science. This program is for students interested in mapping, computer graphics, surveying, aerial photography, and the use of

satellite technology to study earth resources. A variety of career opportunities exist for geography majors. In recent years many graduates with bachelor degrees have entered the fields of urban and environmental planning, both in the public and private sectors. Employment is also available as geographic information systems specialists, cartographers, park naturalists, and remote sensing specialists. The following represent some of the jobs held by recent graduates: environmental impact analyst, urban planner, cartographer, park ranger, transportation planner, travel agent, teacher, zoning investigator, terrain analyst. Some graduates have chosen to pursue opportunities in business where firms are interested in hiring college graduates with broad academic backgrounds.

Advising

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

Geography Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22061)

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

Graduation with Distinction. A student desiring to graduate with Distinction in Geography must meet the university requirements listed in the section of this catalog on "Graduation Requirements" and be recommended by the geography faculty.

General Geography Program

A minor in another department approved by the undergraduate adviser in Geography is required for this degree.

Preparation for the Major. Geography 101, 101L, 102. (7 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508W, 581W, 584W, or Rhetoric and Writing Studies 305W, 500W, 503W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Student Assessment. Passing Geography 495 with a grade of credit (Cr) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate.

Major. A minimum of 27 upper division units in geography to include three units selected from each of the following groups: (a) Geography 321-336; (b) 353-354, 554-559, 585-586; (c) 370, 378, 483, 570-577; (d) 378, 401, 409, 504-511; (e) 380-381; (f) 385, 484, 488, 581-588, and nine units from one of the following groups: (a) Physical: Geography 378, 401, 409, 504-511; (b) Natural Resource and Environmental: 370, 378, 570-575; (c) Urban and Regional Analysis: 353-354, 385, 554-559, 585-586; (d) Methods of Geographical Analysis: 380-385, 484, 488, 581-588; (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)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508W, 581W, 584W, or Rhetoric and Writing Studies 305W, 500W, 503W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Student Assessment. Passing Geography 495 with a grade of credit (Cr) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate.

Major. A minimum of 36 upper division units in geography to include Geography 385; 15 units selected from Geography 380-381, 484, 488, 498, 581-588*; three units selected from each of the following groups: (a) 321-336; (b) 370, 483, 570-575; (c) 353-354, 554-559; six units selected from Geography 378, 401, 409, 504-511; and three units of upper division geography electives.

* Geography 595 may be used to satisfy three units in this group where appropriate and approved by the department.

Emphasis in Natural Resource and Environmental Geography

Students selecting this emphasis are not required to complete a minor in another department.

Students may select either track (a) Environmental Analysis or track (b) Environmental Policy.

Preparation for the Major. Geography 101, 101L, 102; Biology 100 and 100L; Political Science 102; Statistics 250 or comparable statistics course. (17 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Student Assessment. Passing Geography 495 with a grade of credit (Cr) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508W, 581W, 584W, or Rhetoric and Writing Studies 305W, 500W, 503W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Track (a): Environmental Analysis

Additional Preparation for the major. Mathematics 121 or 150; Chemistry 100; and Physics 107. (11-13 units)

Major. A minimum of 36 upper division units in geography to include Geography 370 and 385; three units from 380-381; three units from 321-336; six units from 378, 401, 409, 504-511, and three units from 353-354, 554-559.

An additional 15 units to be selected from 3 or 4 units from Geography 484 or 488, three units from 581-588 and 9 units from 483, 570-575, 595.

Track (b): Environmental Policy

Additional Preparation for the major. Economics 101 or 102. (3 units)

Major. A minimum of 36 upper division units in geography to include Geography 370 and 385; three units from 380-381; three units from 321-336; six units from 378, 401, 409, 504-511, and three units from 353-354, 554-559.

An additional 15 units to be selected from 3 or 4 units from Geography 484 or 488, 581-588 and 12 units from 483, 570-575, 595.

Emphasis in Physical Geography

Students selecting this emphasis are not required to complete a minor in another department.

Preparation for the Major. Geography 101, 101L, 102; Mathematics 121 or 150; Chemistry 200; Physics 180A, 182A; Statistics 250 or comparable statistics course. (22-23 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508W, 581W, 584W, or Rhetoric and Writing Studies 305W, 500W, 503W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Student Assessment. Passing Geography 495 with a grade of credit (Cr) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate.

Major. A minimum of 36 upper division units in geography to include Geography 380 or 381, 385; fifteen units selected from Geography 378, 401, 409, 498, 504-511*; six units selected from Geography 484, 488, 581-588; and three units selected from each of the following groups: (a) 321-336; (b) 353-370, 554-575; and three units of electives.

* Geography 595 may be used to satisfy three units in this group where appropriate and approved by the department.

Emphasis in Urban and Regional Analysis

Students selecting this emphasis are not required to complete a minor in another department.

Preparation for the Major. Geography 101, 101L, 102; Computer Science 106 or 107; Economics 102; Statistics 250 or comparable statistics course. (16 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508W, 581W, 584W, or Rhetoric and Writing Studies 305W, 500W, 503W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Student Assessment. Passing Geography 495 with a grade of credit (Cr) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate.

Major. A minimum of 36 upper division units in geography to include Geography 385; 15 units selected from Geography 353-354, 498, 554-559, 572, 585-586*; six units selected from 378, 401, 409, 504-511; three additional units from each of the following groups: (a) 321-336; (b) 370, 483, 570-575; (c) 380-381; and three units of electives.

* Geography 595 may be used to satisfy three units in this group where appropriate and approved by the department.

Geography Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 22061)

Emphasis in Geographic Information Science

Students selecting this emphasis are not required to complete a minor in another department.

Preparation for the Major. Geography 101, 101L, 102; Biology 100, 100L; Chemistry 200; Computer Science 107, 108; Mathematics 121, 122, or 150; Physics 180A, 182A; Statistics 250 or a comparable statistics course. (33-35 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508W, 581W, 584W, or Rhetoric and Writing Studies 305W, 500W, 503W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Student Assessment. Passing Geography 495 with a grade of credit (Cr) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate.

Major. A minimum of 37 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, 570-575; three units from Geography 353-358, 554-559; three units from Computer Science 310*, 320.

* Additional prerequisite required.

Geography Minor

The minor in geography consists of a minimum of 18-19 units of geography to include Geography 101, 102 and one of the following areas:

Cultural: Six units from Geography 312, 354, 554, and six units selected from regional courses Geography 321-337.

Methods of Geographical Analysis: Nine units selected from Geography 380-385, 484, 488, 581-588, and three units selected from any other upper division geography course.

Natural Resource and Environment: Nine units selected from Geography 370, 378, 483, 570-575, and three or four units selected from methods courses Geography 380-385, 484, 488, 581-588.

Physical: Nine units selected from Geography 378, 401, 409, 504-511, and three or four units selected from methods courses Geography 380-385, 484, 488, 581-588.

Urban and Regional Analysis: Nine units selected from Geography 353-354, 554-559, and three or four units from either methods or regional courses Geography 321-336, 380-385, 484, 488, 581-588.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed 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)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

GEOG 101. Principles of Physical Geography (3) I, II (CAN GEOG 2)

Note: Cannot be used for General Education in combination with Anthropology 101.

Principles underlying the fundamental nature and dynamics of the physical world: the atmosphere, hydrosphere, biosphere, lithosphere, and their systematic spatial relationships.

GEOG 101L. Physical Geography Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Geography 101.

Practical exercise and observation in map analysis, weather elements, climatic regions, and the earth's landform features. Designed to supplement Geography 101.

GEOG 102. Principles of Cultural Geography (3) 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.

GEOG 103. Weather and Climate (3) I, II

Note: Cannot be used for General Education in combination with Anthropology 101.

The composition, structure, and circulation of the atmosphere, including elementary theory of storms and other weather disturbances.

GEOG 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.

GEOG 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

GEOG 312. Culture Worlds (3) I, II

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

Geographical characteristics and development of major cultural realms of the world. Spatial components of contemporary conflict within and between these regions. Not open to students with credit in Geography 106.

GEOG 321. United States (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Geography 101 or 102.

Systematic and regional analysis of physical and cultural landscapes of the United States.

GEOG 323. Middle America (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Geography 101 or 102.

The land and peoples of Mexico, Central America, and the islands of the Caribbean; a survey of the resources, economies, and trade of the region. Field trips may be arranged.

GEOG 324. South America (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Geography 101 or 102.

The physical regions and human geography of South America, including the history of colonization and the exploitation of resources.

GEOG 336. Europe (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Geography 101 or 102.

Systematic analysis of the geographic bases of modern European life. Regional investigation of countries of Europe except the Soviet Union.

GEOG 353. Location of Economic Activity (3)

Prerequisite recommended: Geography 101 or 102.

International arrangement and interrelationship of resources, production, exchange and consumption; principles and theory in industrial location; world trade and economic development selecting favorable locations for capital investments, determining growth potential of service and market areas, meeting environmental impact requirements.

GEOG 354. Geography of Cities (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors. Recommended: Geography 101 or 102.

Survey of the location, function and spread of cities; the spatial and functional arrangement of activities in cities, leading to an analysis of current urban problems: sprawl, city decline, metropolitan transportation. Field trips may be arranged.

GEOG 370. Environmental and Natural Resource Conservation (3) I, II

Prerequisites: Geography 101 or 102; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Quality of environmental and natural resources within changing human and natural systems: pollution problems; preservation of open space, habitats, and wilderness; and conservation of natural resources.

GEOG 378. Environmental Geomorphology (3)

Prerequisites: Geography 101 and Mathematics 121 or 150.

Introduction to environmental physiographic dynamics. Assessment of man's role in these dynamics and their effect on urban and rural land use, including such topics as induced erosion, landslides, and flooding.

GEOG 380. Map Investigation (3) I, II

Two lectures and three hours of laboratory.

Prerequisite: Geography 101 or 102.

Use of the map as an analytical tool in geography. History of developments in cartography.

GEOG 381. Computerized Map Design (3) I, II

Two lectures and three hours of laboratory.

Prerequisite: Geography 101 or 102.

Art and science of creating digital maps as media for describing and analyzing geographic phenomena. Computer laboratory instruction and practice in cartographic techniques with emphasis on thematic maps and geographic information systems.

GEOG 385. Spatial Data Analysis (3) I, II

Prerequisites: Geography 101 or 102; Statistics 250 or comparable course in statistics.

Analysis of spatially distributed data including computer applications. Spatial sampling, descriptive statistics for areal data, inferential statistics, use of maps in data analysis.

GEOG 401. Geomorphology (3)

Prerequisite: Geography 101.

Morphology and genetic interpretation of the relief features of the earth's surface.

GEOG 409. Global Climate Change (3)

Prerequisite: Geography 101 or 103.

Global climate system and feedbacks with biosphere. Past climates and potential future changes, including changes in greenhouse gases, ozone depletion and acid rain. Predictions and uncertainty regarding changes including natural and anthropogenic causes.

GEOG 483. Watershed Analysis (3) II

Prerequisite: Geography 101.

Watershed analysis is an organizing framework for collecting and analyzing scientific information to facilitate environmental management. Framework examined from both an ecological process and an environmental management perspective.

GEOG 484. Geographic Information Systems (3)

Two lectures and three hours of laboratory.

Prerequisite: Three units from Geography 380, 381, 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.

GEOG 488. Remote Sensing of Environment (4) I

Three lectures and three hours of laboratory.

Prerequisite: Geography 101. Recommended: Physics 180A-180B.

Techniques for acquiring and interpreting remotely sensed data of environment. Electromagnetic radiation processes, aerial photographic systems, and human interpretation of aerial and satellite imagery. Geographic analysis of selected terrestrial, oceanographic, and atmospheric processes and resources.

GEOG 495. Geography Capstone (1) Cr/NC

Prerequisite: Senior standing in geography or environmental sciences with an emphasis in watershed science with expectation of graduation within next calendar year.

Synthesis of knowledge gained by students in upper division geography courses at SDSU, based on in-class essays and creation of a portfolio outlining learning experiences in geography. Practical information to prepare for professional employment.

GEOG 496. Selected Studies in Geography (3)

Prerequisite: Six units in geography.

Critical analysis of problems within a specific field of the discipline. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units. Field trips may be arranged.

GEOG 498. Senior Thesis (3)

Prerequisite: An overall grade point average of 3.0 and consent of department.

A written thesis based on an individual research project.

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

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

GEOG 504. Coastal and Submarine Geomorphology (3)

Prerequisites: Geography 101 and Mathematics 121 or 150.

Analysis of marine waves, of their modification in shallow waters, of coastal currents and tides. Interpretation of coastal and submarine relief in relation to environmental processes and their modification by humans. Field trips may be arranged.

GEOG 505. Fluvial Geomorphology (3) I, II

Prerequisite: Geography 401.

Physical foundation of river systems. Geographic variability in river channels and influence of human activities on fluvial forms and processes. Role of fluvial geomorphology in river and watershed management. Field trips may be arranged.

GEOG 507. Geography of Natural Vegetation (3) I

Prerequisite: Geography 101.

The natural vegetation associations of the world, their distribution, classification and development, including relationship to human activities. Field trips may be arranged.

GEOG 508. Environmental Climatology (3)

Prerequisites: Geography 103; Mathematics 121 or 150.

Interaction between the atmosphere and earth surface. Solar and thermal radiation, turbulent heat transfer, soil heat transfer. Change in the atmosphere due to natural variations and human activity. Impacts on the environment.

GEOG 509. Regional Climatology (3)

Prerequisite: Geography 103.

The causes of climatic types as they occur throughout the world. Principles of several climatic classifications.

GEOG 511. 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.

GEOG 554. World Cities: Comparative Approaches to Urbanization (3) II

Prerequisite: Geography 354.

Worldwide trends in urbanization. Case studies of selected cities from various culture areas with focus on international variations in city structure and urban problems.

GEOG 556. Location and Spatial Structure of Cities (3)

Prerequisite: Geography 354 or three units of upper division coursework in a related field.

Principles and characteristics of urban growth and settlement; the internal structure and functioning of urban centers; spatial models of urban land use; growth management, transportation problems, and sociopolitical urban problems. Field trips may be arranged.

GEOG 559. Urban Transportation Geography (3)

Prerequisite: Three units of upper division urban or transportation coursework in geography or related field.

Urban transportation networks and their effects, past, present and future, on the economy and physical structure of the urban region. Field trips may be arranged.

GEOG 570. Environmental Resource Conservation (3)

Prerequisite: Geography 370.

Management of environmental and natural resources. Effective programs and the institutional frameworks in which they occur.

GEOG 572. Land Use Analysis (3) II

Prerequisite: Geography 370.

Problems of maintaining environmental quality in the process of land conversion from rural to urban uses with emphasis on land capability and suitability studies. Field trips may be arranged.

GEOG 573. Population and the Environment (3)

Prerequisite: Geography 102.

Population distribution, growth, and characteristics as they relate to environmental degradation, both as causes and consequences. Roles of women, sustainable development, carrying capacity, optimum population, and policy initiatives in relationships between population and environment.

GEOG 574. Water Resources (3)

Prerequisite: Geography 370.

Occurrence and utilization of water resources and the problems of water resource development. Field trips may be arranged.

GEOG 575. Geography of Recreational Land Use (3) I

Prerequisite: Geography 101 or 102.

Importance of location and environment in the use, management, and quality of recreation areas. Field trips may be arranged.

GEOG 581. Cartographic Design (3)

Two lectures and three hours of laboratory.

Prerequisite: Geography 381.

Computer-assisted map production techniques with emphasis on map design and color use.

GEOG 583. Internet Mapping and Distributed GIServices (3)

Two lectures and three hours of laboratory.

Prerequisite: Geography 381 or 484.

Current development of Internet mapping and cartographic skills for web-based maps (multimedia, animation, and interactive design). Fundamental theories of distributed GIS to support Internet mapping with focus on distributed component technologies, Internet map servers and web services. Not open to students with credit in Geography 582.

GEOG 584. Geographic Information Systems Applications (3)

Two lectures and three hours of laboratory.

Prerequisite: Geography 484 or 588.

Conceptualization, completion, and implementation of geographic information systems (GIS) at local, regional, national, and global levels. Spatial analysis and modeling with GIS. GIS in planning, management, and research.

GEOG 585. Quantitative Methods in Geographic Research (3)

Prerequisite: Geography 385.

Application of statistical techniques to geographic research including simple regression and correlation, multiple regression, classification, factor analysis, and computer applications.

GEOG 586. Qualitative Methods in Geographic Research (3) II

Prerequisite: Geography 102.

Application of qualitative techniques to geographic research including reflexive survey design and in-depth interviews, non-obtrusive methods, landscape interpretation, textual methods and discourse analysis, feminist criticism, and humanistic and historical materialist perspectives on measurement.

GEOG 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.

GEOG 595. Geographic Internship (3) I, II

Prerequisites: Six upper division units in geography and consent of instructor.

Students will be assigned to various government agencies and industry and will work under the joint supervision of agency heads and the course instructor. Maximum credit three units.

GEOG 596. Advanced Topics in Geography (1-3)

Prerequisite: Six upper division units in geography.

Advanced special topics in geography. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.

Geological Sciences

In the College of Sciences

OFFICE: Geology/Mathematics/Computer Science 237

TELEPHONE: 619-594-5586

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E-MAIL: department.office@geology.sdsu.edu

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Faculty

Emeritus: Abbott, Berry, Bertine, Gastil, Jiracek, Kern, Krummenacher, Marshall, McEuen, Miller, Ptacek, Roberts, Threet, Walawender, Wallace

Chair: Girty

The Rollin and Caroline Eckis Chair in Seismology: Day

Professors: Day, Dorman, Girty, Huntley, Kimbrough, Peterson, Rockwell

Associate Professors: Frost, Olsen, Thorbjarnarson

Assistant Professors: Leighton, Pietruszka, Riggs, Schellenberg

Lecturers: Camp, Robinson, SacramentoGrilo

Offered by the Department

Master of Science degree in geological sciences.

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

Emphasis in general geology.

Emphasis in engineering geology.

Emphasis in geochemistry.

Emphasis in geophysics.

Emphasis in hydrogeology.

Emphasis in marine geology.

Emphasis in paleontology.

Teaching major in geological sciences for the single subject teaching credential in science.

Minor in geological sciences.

Minor in oceanography.

The Rollin and Caroline Eckis Chair in Seismology

A gift from Rollin and Caroline Eckis, combined with matching funds from the Atlantic Richfield Company and contributions from SDSU faculty and staff, established The Rollin and Caroline Eckis Chair in Seismology at SDSU. The late Rollin Eckis was former president of Richfield Oil Company and vice chairman of the board of Atlantic Richfield Company.

The first appointee to the chair, Dr. Steven M. Day, conducts research on the mechanics of earthquakes and earthquake hazards.

The Major

Geology is the study of the earth, its composition, its history, and its constantly changing character.

Geologists study the origin and evolution of our planet; the chemical and physical properties of minerals, rocks, and fuels; the structure of our mobile crust – its newly forming ocean floors and its ancient, drifting continents; the history of life; and human adaptation to earthquakes, volcanic eruptions, landslides, and floods. The subject matter of geology ranges from dinosaurs to the prediction of earthquakes.

Students who are curious about the planet on which we live, challenged by problems which involve the earth, and intrigued by the potential of a subject which combines both the arts and sciences, should consider geological sciences as a major.

The employment outlook is favorable, particularly with engineering, hydrogeology, toxic waste disposal firms, energy companies, and as school teachers.

A geology graduate may be employed as one of the following professionals: hydrologist, geophysicist, geochemist, environmental scientist, oceanographer, teacher, research technician, geological surveyor, paleontologist, energy and resource explorer, and resource planner.

Geologists are primarily employed by private corporations, including petroleum, mining, construction, quarry, hydrology, and engineering geology companies and by government agencies, such as the U.S. Geological Survey, the U.S. Bureau of Reclamation, the California Department of Conservation, and regional planning offices. Students with graduate degrees are sought for teaching positions in secondary schools, community colleges, and universities.

Geological Sciences Major

**With the B.S. Degree in Applied Arts and Sciences
(Major Code: 19141)**

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." All required upper division courses must be taken for letter grades only, not credit/no credit.

Courses to satisfy the requirement of 36 or more upper division units in the major may be selected from upper division geological sciences courses not explicitly excluded. Students may petition the department to include courses from other disciplines to complete the upper division major requirement.

A minor is not required with this major.

Emphasis in General Geology

Preparation for the Major. Oceanography 100, or Geological Sciences 100 and 101, or Geological Sciences 104 and 101; Geological Sciences 105, 200, 221; Biology 100, 100L; Chemistry 200, 201; Mathematics 150, 151; Physics 195, 195L, 196, 196L. (45 units)

Recommended: Physics 197, 197L; Mathematics 252.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 38-40 upper division units in approved courses to include Geological Sciences 300, 306, 307, 324, 498A, 498B, 508, 530, 536, 537; plus six additional upper division units from geological sciences (upper division courses from outside department by approval).

Emphasis in Engineering Geology

Preparation for the Major. Oceanography 100, or Geological Sciences 100 and 101, or Geological Sciences 104 and 101; Geological Sciences 105, 200, 221; Biology 100; Chemistry 200, 201; Engineering Mechanics 200; Mathematics 150, 151, 252; Physics 195, 196, 197; Statistics 250. (55 units)

Recommended: Civil Engineering 218; Physics 195L, 196L, 197L.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 41 upper division units in approved courses to include Geological Sciences 300, 306, 307, 324, 498B, 508, 536, 550, 551; Civil Engineering 301*, 462, 463; one of the following: Geological Sciences 505, 514, 530, 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.

* Prerequisites waived.

Emphasis in Geochemistry

Preparation for the Major. Oceanography 100, or Geological Sciences 100 and 101, or Geological Sciences 104 and 101; Geological Sciences 200, 221; Biology 100 or 101; Chemistry 200, 201, 231, 251; Mathematics 150, 151; Physics 195, 196, 197; Statistics 250. (53 units)

Recommended: Geological Sciences 105, 307; Chemistry 431; Physics 195L, 196L, 197L; Mathematics 252.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 40 upper division units in approved courses to include Geological Sciences 300, 306, 324, 498B, 501, 530, 536, 551, 552; Chemistry 410A*-410B, 571.

* Prerequisites waived.

Emphasis in Geophysics

Preparation for the Major. Oceanography 100, or Geological Sciences 100 and 101, or Geological Sciences 104 and 101; Geological Sciences 200, 221; Biology 100 or 101; Chemistry 200, 201; Mathematics 150, 151, and 252; Physics 195, 195L, 196, 196L, 197. Engineering 280 must be taken if students select Engineering 510 in the major. (47-50 units)

Recommended: Geological Sciences 105, Physics 197L, Statistics 250.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 40 upper division units in approved courses to include Geological Sciences 300, 306, 307, 324, 498B, 533, and 560; Mathematics 342A and 342B, or Engineering 510; Physics 311, 350; Physics 400A or Electrical Engineering 340; plus three upper division units of approved courses in geological sciences at the 500 level.

Emphasis in Hydrogeology

Preparation for the Major. Oceanography 100, or Geological Sciences 100 and 101, or Geological Sciences 104 and 101; Geological Sciences 105, 200, 221; Biology 100; Chemistry 200, 201; Mathematics 150, 151; Physics 195, 196, 197; Mathematics 252 or Chemistry 231; Statistics 250. (52 units)

Recommended: Physics 195L, 196L, 197L.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 39 upper division units in approved courses to include Geological Sciences 300, 306, 324, 498B, 514, 530, 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. Oceanography 100, or Geological Sciences 100 and 101, or Geological Sciences 104 and 101; Geological Sciences 105, 200, 221; Biology 100 or 101; Chemistry 200, 201; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, 197L. (52 units)

Recommended: Geological Sciences 537. A foreign language.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 40 upper division units in approved courses to include Geological Sciences 300, 306, 307, 324, 498B, 530, 536, 540, 545, and two of the following courses: Geological Sciences 501, 508, 537, Biology 517; plus four upper division units of departmentally approved courses. Recommended: Chemistry 410A-410B for students anticipating postgraduate studies.

Emphasis in Paleontology

Preparation for the Major. Oceanography 100, or Geological Sciences 100 and 101, or Geological Sciences 104 and 101; Geological Sciences 105, 200, 221; Biology 201A, 201B, 215; Chemistry 200, 201; Mathematics 150 or 121 and 122 (alternative of 121 and 122 should not be selected by students planning academic work beyond the B.S. degree); Physics 180A-180B and 182A-182B. (48-50 units)

Recommended: Geological Sciences 307.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 38 upper division units in approved courses to include Geological Sciences 300, 306, 324, 498A, 498B, 501, 508, 536, 537*; Biology 352, 354; plus four upper division units of departmentally approved courses.

* Prerequisites waived.

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 CSET examinations or complete an approved academic program. The single subject teaching credential in science subject matter preparation program described below satisfies the academic requirements for a student planning to teach integrated science and geosciences at the secondary level. Entrance into the post-baccalaureate credentialing program in part requires certification of subject matter competency by this department. This certification requires completion of the academic program with the required grades, submission of a satisfactory portfolio, and the recommendation of the department. Contact the subject matter preparation program adviser. In addition, all candidates for a Single Subject Teaching credential at San Diego State University must complete the requirements outlined in the catalog under Teacher Education or Policy Studies. Contact the School of Teacher Education or the Policy Studies in Language and Cross-Cultural Education Department for up-to-date information on prerequisites.

General Education Requirements. Students will complete a minimum of 49 units in General Education to include a minimum of nine upper division units. No more than 12 units may be used for General Education credit from any one department or academic unit. No more than 7 units from one department can be used in Sections II and IV combined (Foundations and Explorations), nor more than 10 units from one department in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).

I. Communication and Critical Thinking: 9 units

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

1. **Oral Communication (3 units)** to be satisfied by Africana Studies 140, Chicana and Chicano Studies 111A, or Communication 103.
2. **Composition (3 units)** to be satisfied by Africana Studies 120, Chicana and Chicano Studies 111B, or Rhetoric and Writing Studies 100.

3. **Intermediate Composition and Critical Thinking (3 units)** to be satisfied by Africana Studies 200 or Rhetoric and Writing Studies 200.

II. Foundations (28 units)

- A. **Natural Sciences and Quantitative Reasoning (13 units):**
 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. You may **not** use Credit/No Credit grades.
- B. **Social and Behavioral Sciences (6 units).**
- C. **Humanities (9 units):**

Complete a course in each of three of the following four areas (1. Literature; 2. Art, Classics, Humanities, Music, and Theatre; 3. Philosophy and Religious Studies; 4. Foreign Language) in the Humanities section of the Foundations component of the regular General Education program. Refer to General Education course offerings in the Graduation Requirements section of the catalog. One semester of a foreign language is recommended.

III. American Institutions

Three units of the six units of coursework which meet the American Institutions graduation requirement may be used in General Education, excluding courses numbered 500 and above.

IV. Explorations (9 units)

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

- A. **Upper division Social and Behavioral Sciences (3 units).** Linguistics 420 is recommended.
- B. **Upper division Humanities** to be satisfied by History 441 (3 units).
- C. **Upper division Humanities (3 units).** A course in cultural diversity is required. Refer to Part C of Explorations under the General Education requirements section in the catalog.

The Major

Preparation for the Major. Africana Studies 140, Chicana and Chicano Studies 111A, or Communication 103; Africana Studies 120, Chicana and Chicano Studies 111B, or Rhetoric and Writing Studies 100; Africana Studies 200 or Rhetoric and Writing Studies 200; Astronomy 101, 109; Biology 100, 100L; Chemistry 200, 201; Geography 103; Geological Sciences 105, 200, 221; Mathematics 150; Physics 180A, 180B, 182A, 182B **OR** Physics 195, 195L, 196, 196L, 197, 197L; Statistics 250. (56-60 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 39 units to include Geological Sciences 300, 303 (allowed only in this version of the major in Geological Sciences), 306, 324, 498A, 498B, 501, 536, 537; Biology 319; Oceanography 541; and six units selected from Geological Sciences 305, 307, 505, 508, 514, 520, 530, 540, 545.

Additional Requirements for Subject Matter Preparation Certification

Satisfactory Grades. At most one course with a C– or lower among the courses listed under Preparation for the Major, and at most one course with a C– or lower among the courses listed under the Major. If a course is repeated, the highest grade will count.

Formative Assessment. Completion of a satisfactory, preliminary portfolio two semesters prior to graduation. Contact the subject matter preparation adviser for information.

Summative Assessment. Completion of a satisfactory, final portfolio, and a positive recommendation from a committee consisting of the senior project supervisor, the Department of Geological Sciences chair, and the subject matter preparation program adviser.

Geological Sciences Minor

The minor in geological sciences consists of a minimum of 20 units in geological sciences, twelve of which must be in upper division courses. Courses include Geological Sciences 100, 101, 105; and twelve units selected from Geological Sciences 301, 302, 303, 304, 305, 306, 307, 324, 502, 505, 514, 536, 537. In addition, Geological Sciences 200 and 221 are appropriate for geology minors.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Oceanography Minor

For a listing of requirements refer to the section of this catalog on Oceanography.

Courses (GEOL)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

GEOL 100. Planet Earth (3) 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.

GEOL 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.

GEOL 104. Earth Science (3)

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.

GEOL 105. Historical Geology (4) I

Three lectures and three hours of laboratory. Arrangement for field study during the semester.

Prerequisites: Oceanography 100, or Geological Sciences 100 and 101, or Geological Sciences 104 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.

GEOL 200. Geologic Inquiry and Problem Solving (3) I

Two lectures and three hours of laboratory

Scientific thought process using real problems addressed by student research in field and laboratory. Includes written report and oral presentation.

GEOL 221. Mineralogy (4) I

Two lectures and six hours of laboratory.

Prerequisites: Credit or concurrent registration in Geological Sciences 200; high school chemistry and trigonometry, or credit or concurrent registration in college chemistry and trigonometry.

Practice in determination of common minerals; their geologic environment, utilization, and economic significance. Introduction to optical techniques in mineral identification.

GEOL 296. Experimental Topics (1-4)

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

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

GEOL 300. Computer Applications in Geology (3)

Two lectures and three hours of laboratory.

Programming and applications of software fundamentals to geological sciences. Applications software will include DOS, Windows, and Macintosh operating systems, word processing, spreadsheets, graphing, contouring, and drawing. Introduction to Internet and overview of geology-specific software.

GEOL 301. Geology of National Parks and Monuments (3) 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.

GEOL 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.

GEOL 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.

GEOL 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.

GEOL 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.)

GEOL 306. Structural Geology and Field Methods (5) I

Two lectures and three hours of laboratory and six weekends in the field.

Prerequisites: Geological Sciences 300, 324; algebra, trigonometry and at least high school physics. Highly recommended: First semester college physics.

Integrates structural and introductory field geology. Principles, causes, and mechanisms of rock deformation combined with field study. Graphical, computer, and analytical techniques for working with folds and faults are applied in the field. Field observations are presented in geologic maps, cross sections, and reports.

GEOL 307. Geophysics and Field Methods (4) II

Two lectures and three hours of laboratory and a minimum of three weekends in field during semester.

Prerequisites: Geological Sciences 306; Mathematics 150; Physics 195 or 180A.

Principles and field studies of gravity, magnetic, and seismic techniques applied to structure, dynamics, and shallow environment of the earth. Computer-aided data reduction and interpretation.

GEOL 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.

GEOL 324. Petrology (4) II

Two lectures and six hours of laboratory.

Prerequisite: Geological Sciences 221.

Composition, classification, occurrence, and origin of igneous, sedimentary, and metamorphic rocks. Identification of rocks in hand specimen; petrographic analysis of rocks in thin section; modeling and interpretation of petrologic data. (Formerly numbered Geological Sciences 224.)

GEOL 412. Processes and Inquiry in the Earth Sciences (4)

Three lectures and two hours of activity.

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Investigation of processes of inquiry and rational thinking skills characteristic of the earth sciences. (Formerly numbered Natural Science 412D.)

GEOL 496. Selected Topics in Geology (1-4)

Prerequisite: Consent of instructor.

Selected topics in geology and related earth sciences. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

GEOL 498A. Senior Seminar (1) Cr/NC I,II

Prerequisite: Senior standing in geological sciences.

Preparation of written and oral scientific reports and attendance at departmental seminars.

GEOL 498B. Senior Thesis (2) I, II

Prerequisite: Consent of instructor.

Individual research project, written thesis, and oral presentation done under supervision of professor chosen by student.

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

Prerequisites: Acceptable grade average in at least 12 upper division units within the major and consent of staff.

Individual study in field, library, laboratory, or museum work. Maximum credit four units.

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

GEOL 501. Geochronology (3)

Two lectures and three hours of laboratory.

Prerequisite: Geological Sciences 324.

Survey of radiometric, chemical, stratigraphic, and paleomagnetic methods used to establish time in relationship to the history of the earth. Basis for correlation of geologic events and estimation of rates and periodicity of geologic processes.

GEOL 502. Geology of North America (3) I

Prerequisite: Geological Sciences 105.

A regional analysis of North American geology, its structural, stratigraphic, and tectonic patterns, and hypotheses concerning their origin and evolution.

GEOL 505. Photogeology and Remote Sensing (3) II

Two lectures and three hours of laboratory.

Prerequisite: Geological Sciences 200.

Geologic interpretation of aerial and satellite photographs, elementary stereoscopy and stereometry applied to structural and stratigraphic problems, and compilation of geologic maps from annotated aerial and satellite photographs.

GEOL 508. Advanced Field Geology (4 or 6) 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.

GEOL 514. Process Geomorphology (3)

Two lectures and three hours of laboratory.

Prerequisite: Geological Sciences 306.

Processes shaping and affecting the earth's surface, and application of resultant land forms in interpretation of geologic structure, stratigraphy, and neotectonics.

GEOL 520. Ore Deposits (3) I

Prerequisite: Geological Sciences 306.

Geologic relations, origin, distribution, and economics of metallic and nonmetallic mineral deposits.

GEOL 525. Petrography (3) I

Two lectures and three hours of laboratory.

Prerequisite: Geological Sciences 324.

A study of rocks with the polarizing microscope; identification of mineral constituents; interpretation of textures; classification of rocks; problems of genesis.

GEOL 530. Geochemistry (3) I

Two lectures and three hours of laboratory.

Prerequisites: Geological Sciences 324; Chemistry 201; Mathematics 150.

Fundamental principles of low- and high-temperature geochemistry. Origin of the elements; formation of the solar system; differentiation of the earth; weathering at the earth's surface; chemistry of natural waters. Laboratory methods applied to geological problems. Not open to students with credit in Geological Sciences 530L.

GEOL 533. Geophysical Analysis (3)

Two lectures and three hours of laboratory.

Prerequisites: Geological Sciences 307, Mathematics 252, Physics 197. Recommended: Physics 195L, 196L, 197L.

Analog and digital data collection, processing, modeling and error estimation. Computer-aided examples and field tests from seismics, gravity, magnetics, and electromagnetics including magnetotellurics.

GEOL 536. Sedimentology and Lithostratigraphy (3) I

Two lectures and three hours of laboratory.

Prerequisites: Geological Sciences 105 (not required but recommended for Emphases in Geochemistry and Geophysics) and 324.

Sedimentologic description and interpretation of the textures and structures of sediments and sedimentary rocks. Stratigraphic analysis of stratal succession, age relationships, and correlation on local and global scales.

GEOL 537. Geobiology (3) II

Two lectures and three hours of laboratory.

Prerequisites: Geological Sciences 105 and either Biology 100-100L 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.

GEOL 540. Marine Geology (3)

Prerequisites: Geological Sciences 105, and either Geological Sciences 324, 502, 514, or 537.

Plate tectonic origin and history of the ocean basins. Formation and distribution of sediments in response to biologic, chemical, and geologic processes.

GEOL 545. Descriptive Physical Oceanography (3)

Prerequisites: Mathematics 121 and 122, or 150; Physics 180A or 195.

Physical environment of oceans including heat, water, and salt budgets, physical properties of sea water, sea ice, air-sea relationships, effects of light and sound, distribution of temperature, salinity, density, surface current, deep circulation, water mass formation, instruments and methods of study.

GEOL 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.

GEOL 551. Hydrogeology (3) I

Two lectures and three hours of laboratory.

Prerequisites: Geological Sciences 306 and Mathematics 150.

Theory of ground water flow. Exploration for and development of the ground water resource. Aquifer tests, water quality, and water resource management. Occurrence of water in alluvial, sedimentary, volcanic, plutonic, and metamorphic terrains.

GEOL 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.

GEOL 560. Earthquake Seismology (3)

Two lectures and three hours of laboratory.

Prerequisites: Mathematics 252, Physics 197. Recommended: Mathematics 342A.

Theory of seismic wave excitation, propagation, and recording. Methods of seismogram interpretation and analysis. Applications to tectonics and earthquake hazard analysis.

GEOL 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*.

German

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In the Department of European Studies
in the College of Arts and Letters

Faculty

Emeritus: Boney, Dunkle, Lawson, Paulin, Wulbern
Chair: Benkov
Professor: Skwara
Associate Professor: Wauchope

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 Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 11031)

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

Students majoring in German must complete a minor in another field to be approved by the departmental adviser in German.

Preparation for the Major. German 100A, 100B, 202, 205A, 205B. (21 units)

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

International Experience Requirement. All German majors are required to complete an approved study abroad program in a German-speaking country consisting of a minimum of six units (90 hours). However, German majors are strongly encouraged to complete a more extensive abroad experience by participating in a semester or an academic year program. To fulfill the International Experience Requirement, German majors must enroll in a study abroad program approved by the department. Unapproved study abroad programs will not meet the international experience requirement for the major.

Major. A minimum of 27 upper division units to include German 300, 301, 304, 400, 430, and 12 units in upper division German. No more than one German course taught in English can apply to the major.

Emphasis in German Studies

No minor is required with this emphasis.

Preparation for the Major. German 100A, 100B, 202, 205A and 205B. (21 units)

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include German 300, 301, 430; six units of electives in German; 12 units (no more than six units in any one department) selected from Art 558, Economics 330, Geography 336, History 440, 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 taught in German, nine units of which must be in upper division German courses. Any course taught in English needs department approval to apply to the minor requirements.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of German to fulfill the language requirement for the bachelor of arts degree in liberal arts and sciences must successfully complete German 202 or 205A or 205B or the equivalent level of achievement. The usual sequence of coursework is German 100A, 100B, 202, 205A and 205B. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

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

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. **Four years** of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the language requirement.

Courses (GERMN)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

Native speakers of German will not receive credit for taking lower division courses in German except with advance approval from the department.

All lower division courses in German are taught in German unless otherwise stated.

No credit will be given for lower division courses taken after successfully completing any upper division German course taught in German.

No credit will be given for German 100A, 100B, 205A, 205B taken out of sequence. German 202 may be taken concurrently with German 205A or 205B.

GERMN 100A. First Course in German (5) I, II

Pronunciation, oral practice, readings on German culture and civilization, minimum essentials of grammar. Not open to students who have completed three years of high school German unless the third course was completed five or more years ago.

GERMN 100B. Second Course in German (5) I, II

Prerequisite: German 100A or two years of high school German.

Continuation of German 100A. Not open to students who have completed four years of high school German unless the fourth course was completed five or more years ago.

GERMN 150. Introduction to German Studies (3)

Introduction to field of German studies with emphasis on cultural life of German-speaking communities and their impact worldwide on major artistic, intellectual, and cultural movements. Taught in English.

GERMN 202. Readings in German (3)

Prerequisite: German 100B.

Reading comprehension through intermediate-level cultural materials. May be taken concurrently with German 205A or 205B.

GERMN 205A. Third Course in German (4)

Four lectures and one hour of laboratory.

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

Continuation of German 100B. Practice of all language skills at intermediate level.

GERMN 205B. Fourth Course in German (4)

Four lectures and one hour of laboratory.

Prerequisite: German 205A.

Continuation of German 205A. Practice of all language skills at intermediate level.

GERMN 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division courses in German are taught in German unless otherwise stated.

GERMN 300. Readings in Contemporary German Culture (3)

Prerequisites: German 202 and 205B. Completion of the General Education requirement in Foundations II.C., Humanities required for non-majors.

Development of advanced proficiency in reading comprehension and oral communication through use of cultural materials. Not open to students who hold a degree from a secondary or post-secondary school in which the primary language of instruction is German.

GERMN 301. Grammar and Composition (3)

Prerequisites: German 202 and 205B. Completion of the General Education requirement in Foundations II.C., Humanities required for non-majors. **Proof of completion of prerequisites required:** Copy of transcript.

Grammar and stylistics; intensive writing practice; reports based on outside reading. Not open to students who hold a degree from a secondary or post-secondary school in which the primary language of instruction is German.

GERMN 304. Phonetics of Spoken German (3)

Three lectures and one hour of laboratory.

Prerequisites: German 202 and 205B.

Sounds and intonation of German.

GERMN 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.

GERMN 340. German Linguistics (3)

Prerequisite: German 301.

German linguistics with focus on varieties of German language to include: history of German, phonetics, phonology, syntax, morphology, semantics, pragmatics, applied linguistics and sociolinguistics.

GERMN 400. German Studies Through the Media (3)

Prerequisite: German 300 or 301.

Society and institutions of German-speaking regions through spoken and written texts from the media. Emphasis on topics of importance for business, communications, and German area studies.

GERMN 430. German Civilization (3)

Prerequisites: German 202 and 205B.

Artistic, intellectual, and cultural movements of the German-speaking regions, while building on advanced language skills. May be repeated with new title and content. Maximum credit six units.

GERMN 496. Experimental Topics (1-4)

Prerequisites: German 300 (for literary topics) or 301 (for linguistics topics).

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

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

Prerequisites: Fifteen upper division units in the major with an average of B (3.0) or better and consent of instructor. **Proof of completion of prerequisites required:** Copy of transcript.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

GERMN 501. Translation (3)

Prerequisites: German 300 and 301.

Translation of a variety of texts from German to English and English to German.

GERMN 505. Applied German Linguistics (3)

Prerequisite: German 301 or 304.

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

GERMN 520. Modern German Literature (3)

Prerequisites: German 300 and 301.

Major authors and genres since Enlightenment.

GERMN 596. Topics in German Studies (3)

Prerequisites: German 300 and 301. **Proof of completion of prerequisite required:** Copy of transcript.

Topics in German language, literature, or linguistics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to Bulletin of the Graduate Division.



Gerontology

In the College of Health and Human Services

OFFICE: Hepner Hall 203
TELEPHONE: 619-594-6765
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Faculty

Gerontology is a multidisciplinary program administered through the Department of Gerontology. Faculty assigned to teach courses are drawn from the Departments of Anthropology, Psychology, and Sociology; the School of Social Work; and the Colleges of Arts and Letters, Health and Human Services, and Professional Studies and Fine Arts.

Emeritus: DuBois, Stanford

Chair: Garrett

Professor: Garrett

Associate Professor: Usita

Lecturers: Anguera, Arnett

Offered by the Department

Master of Science degree in gerontology.

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

Minor in gerontology.

Certificate in applied gerontology (offered only in Extension).

The Major

Gerontology concerns itself with the study and application of knowledge about the physical, social, and economic conditions of older people. Since the process of aging touches all aspects of human activity, gerontology is multidisciplinary in nature. Gerontology is becoming a major area of research in the biological, behavioral, and social sciences.

Every day there is a net increase of 1,000 Americans 65 years of age and over. This is an increase of more than 3,500,000 elderly persons per year. With this striking increase has come a growing need for more trained professionals to apply new knowledge about the elderly. Such knowledge is needed for planning and developing programs and services which improve the quality of life for older Americans.

Gerontological training and research is an important link in meeting the social, physical, and psychological needs of the elderly. Students of gerontology benefit through the personal understanding of their own aging process. Those wishing to pursue careers in aging will find many exciting opportunities for serving the elderly in a variety of settings.

One of the primary goals of the gerontology program is to provide students with a broad base for comprehensive understanding of the impact of society's changing demographics on every aspect of their social and work lives. It is through research, teaching, and community involvement that faculty members from numerous disciplines provide for the intellectual development of students, the enhancement of community programs, and the assurance of a better quality of life for older people in the community, the state, and the nation.

Advising

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

Gerontology Major

With the B.A Degree in Liberal Arts and Sciences
(Major Code: 21043)

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

A minor is not required with this major.

Preparation for the Major. Gerontology 101, 250; Biology 100; Child and Family Development 135; Community Health Education 101; Psychology 101; and Social Work 110. (21 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of the catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Gerontology 350, 360, 370, 400A, 400B, 402, 520, 522; and 12 units selected with approval of the adviser from Child and Family Development 335; Gerontology 496, 499, and 596 (when appropriate); Exercise and Nutritional Sciences 433; Psychology 456; Recreation 580; Social Work 420*; Women's Studies 521.

* Prerequisites waived.

Gerontology Minor

The minor in gerontology consists of a minimum of 18 units selected from Gerontology 101, 350, 360, 370, 400A, 400B, 402, 499, 522, 596; Child and Family Development 496*; Exercise and Nutritional Sciences 433; Recreation 580; Social Work 120, 420; Sociology 496*; and Women's Studies 521.

Additional prerequisites may be required for the courses in the minor.

Courses in the minor may not be counted toward the major or the certificate, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

* When relevant.

Certificate in Applied Gerontology

(Offered only in Extension)

This program is designed for persons working in the field of aging as well as those interested in obtaining employment in the aging field. Completion of the certificate program will enable participants to assume greater responsibility by broadening their knowledge of and skill in this specialty area. More specifically, the program is designed to provide the following:

1. A broad knowledge base in the bio-psycho-social aspects of aging.
2. Practical knowledge and skills in the application of this information towards services for older people.
3. Knowledge of government programs and program planning and evaluation techniques.
4. Knowledge of programs and services operating in local areas as well as gaps which exist in local programming.
5. Knowledge and skills needed to function in an advocacy capacity to improve services to the elderly.

Certificate Requirements:

1. Complete 18 semester units of coursework with a grade point average of 2.0 or better.
2. Complete coursework within four years after admission to the program.
3. Petition the College of Extended Studies for the certificate upon completion of 18 semester units.

To be admitted to the program, students are expected to show by previous coursework and/or experience some evidence of potential for completing the academic program. Previous courses in gerontology taken at SDSU or at other universities will be considered for credit toward certification on an individual basis, but not to exceed nine units.

The Department of Gerontology is responsible for the coordination of the certificate program in conjunction with the College of Extended Studies. Admission applications may be obtained from the College of Extended Studies. Applications may be submitted prior to entering the program or before the completion of nine semester units of coursework.

Students are required to submit an Open University Registration Form each semester to the College of Extended Studies.

Students accepted into the program will be assigned an adviser by the Department of Gerontology.

Required Courses for the Certificate Program

A minimum of 12 semester units must be selected from the following areas inclusive of the practicum:

I. Introduction to Gerontology

Gerontology 101. Introduction to Human Aging (3)

II. Psychological Aspects of Aging

Psychology 350. Abnormal Psychology (3)

III. Sociological Aspects of Aging

Gerontology 250. Intergenerational Issues and the Elderly (3)

Gerontology 350. Social Policy and Aging (3)

IV. Practicum

Gerontology 400A or 400B. Practicum in Gerontology (3) (Cr/NC)



Elective Courses

A minimum of six semester units selected from the following:
Gerontology 360. Minority and Ethnic Aging (3)
Gerontology 370. Images of Aging in Contemporary Society (3)
Gerontology 402. The Aging Network (3)
Gerontology 499. Special Study (1-3)
Gerontology 520. An Inside Look at Aging Programs—Program Analysis (3)
Gerontology 596. Advanced Special Topics in Gerontology (1-4)
Recreation 580. Leisure and the Aging Process (3)
Women's Studies 310. Women in Cross-Cultural Perspective (3)
Women's Studies 521. Life Cycles of Women (3)

Courses (GERO)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

GERO 101. Introduction to Human Aging (3) I, II

Overview of the field of gerontology, including demographic trends, basic theories, concepts and philosophic ideas, social policies, planning issues, and services available to meet the needs and problems of the aged.

GERO 250. Intergenerational Issues and the Elderly (3)

Controversial issues surrounding interpersonal relations between the aged and other age groups.

GERO 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

GERO 350. Social Policy and Aging (3) II

Prerequisite: Gerontology 101.

Philosophical and practical gerontological knowledge for the operation of health and human service organizations. Multiprofessional perspective of policies, services, and administrative techniques.

GERO 360. Minority and Ethnic Aging (3) I

Prerequisite: Gerontology 101 or completion of the General Education requirement in Foundations IIB, Social and Behavioral Sciences required for nonmajors.

Attitudes and cultural values related to aging members of ethnic minorities. Major social and psychological theories on aging as they relate to ethnic minority elderly. Impact of class, economic resources, and health on the aging process.

GERO 370. Images of Aging in Contemporary Society (3) I, II

Prerequisite: Gerontology 101 or completion of the General Education requirement in Foundations IIB, Social and Behavioral Sciences required for nonmajors.

Images of older persons across gender and ethnicity in our society. Influence of films, newspapers, radio, television, books and magazines, and a wide range of advertising mechanisms.

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

Twelve hours of laboratory.

Prerequisites: Gerontology 350, 360, 370.

Integration of theoretical background and practical experience in providing services to elderly. Fieldwork and observation in settings providing services to the elderly. Direct experience in aging projects relevant to their field of interest.

GERO 402. The Aging Network (3) I

Prerequisite: Three units in gerontology.

Current status of aging services in the community. Evaluation of effectiveness of programs and services to maintain elderly in the community.

GERO 496. Experimental Topics (1-4)

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

GERO 499. Special Study (1-3)

Prerequisite: Consent of department chair.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

GERO 520. Analysis of Programs for the Aging (3)

Prerequisite: One upper division course in gerontology.

Major programs in aging that support daily functioning of elderly. Effectiveness of programs in serving today's elderly with attention to ethnic and cross-cultural variations.

GERO 522. International Issues on Aging (3)

Prerequisite: Three units in gerontology.

Socio-economic implications of rapidly growing number and proportion of older people around the world. Comparative study of aging populations in different countries, analysis and evaluation of related policies and programs.

GERO 530. Research Methods and Evaluation (3)

Prerequisites: Course in elementary statistics and satisfaction of the Entry-Level Mathematics requirement. Recommended: Sociology 201.

Research methodology, assessment, and evaluation of gerontology. Basic statistical techniques in evaluating gerontology databases. Methods, statistical procedures, hypothesis testing, evaluation, use of tables and graphs, and use of gerontology databases. SPSS using gerontology databases for instruction.

GERO 540. Physical Function and Disease Prevention (3)

Prerequisites: One course in gerontology; 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.

GERO 596. Advanced Special Topics in Gerontology (1-4)

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

Greek – Refer to “Classics” in this section of the catalog.

Health Science — Refer to “Community Health Education” in this section of the catalog.

Health and Human Services

OFFICE: Hepner Hall 124
TELEPHONE: 619-594-6516
FAX: 619-594-7103

Courses (HHS)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

HHS 280. Health Education for Teachers (1)

Prerequisite: For multiple or single subject teacher candidates.

Topics designated in health framework for California; infusing health topics in the K-12 general curriculum.

HHS 296. Experimental Topics (1-4)

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

“Don’t worry so much about
your self-esteem. Worry
more about your character.
Integrity is its own reward.”

— Laura Schlessinger



Hebrew

In the Department of Linguistics and Oriental Languages
In the College of Arts and Letters

OFFICE: Business Administration 327

TELEPHONE: 619-594-5268

FAX: 619-594-4877

<http://www-rohan.sdsu.edu/dept/linguist/index.html>

Faculty

Chair: Kaplan

Professor: Bar-Lev

Offered by the Department of Linguistics and Oriental Languages

Courses in Hebrew.

Major or minor work in Hebrew is not offered.

Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Hebrew to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Hebrew 201 or the equivalent level of achievement. The usual sequence of coursework is Hebrew 101 (with 100), 102, 200, and 201. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

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

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. **Four years** of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the language requirement.

Courses (HEBRW)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

All lower division courses in Hebrew are taught in Hebrew.

No credit will be given for Hebrew 101, 102, 201 taken out of sequence.

HEBRW 100. Hebrew Alphabet (1)

Study of Hebrew alphabet; practice with reading and comprehending whole texts (without vowels), as well as pronouncing. Intended for students of Hebrew 101 who have not previously studied the alphabet. May also be taken without Hebrew 101. Does not satisfy language requirement.

HEBRW 101. Elementary Hebrew I (3)

Three lectures and one hour of laboratory.

Beginning reading, writing, and conversational skills. Essentials of grammar. Not open to students who have completed three years of high school Hebrew unless the third course was completed five or more years ago.

HEBRW 102. Elementary Hebrew II (3)

Three lectures and one hour of laboratory.

Prerequisite: Hebrew 101.

Continuation of Hebrew 101. Not open to students who have completed four years of high school Hebrew unless the fourth course was completed five or more years ago.

HEBRW 200. Reading Classical Hebrew (1)

Prerequisite: Knowledge of the Hebrew alphabet.

Continuation of Hebrew 100. Reading in Hebrew of short selections from Hebrew Bible and Prayerbook, study of songs, reading of simple stories. Focus on learning Hebrew roots and affixes through readings. Does not satisfy language graduation requirement.

HEBRW 201. Intermediate Hebrew (4)

Four lectures and one hour of laboratory.

Prerequisites: Hebrew 102 and 200.

Continuation of Hebrew 102. Applications of grammar and reading skills. Additional practice in conversation.

HEBRW 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division courses in Hebrew are taught in Hebrew unless otherwise stated.

HEBRW 330. Hebrew Discourse and Literature (3)

Prerequisites: Hebrew 201 and completion of the General Education requirement in Foundations II.C., Humanities.

Varieties of Hebrew discourse, including different types of modern discourse, and selected highlights of Hebrew literature throughout the ages, to be read in Hebrew. Use of variety of language modalities, including film, drama, translation, and student reports.

HEBRW 470. Kabbalah as a Symbolic System (1-2)

Prerequisite: Upper division standing.

Concepts of kabbalah in English to include Tree of life and sphiroth; masculine and feminine aspects, sex and sexuality; alef-bet of Creation and "meanings" of Hebrew letters. Taught in English. Not open to students with credit in Hebrew 471.

HEBRW 471. Kabbalah as a Symbolic System (3)

Prerequisites: Upper division standing and completion of the General Education requirement in Foundations II.C. Humanities.

Concepts of kabbalah in English to include Tree of life and sphiroth; masculine and feminine aspects, sex and sexuality; alef-bet of Creation and "meanings" of Hebrew letters. Taught in English. Not open to students with credit in Hebrew 470.

HEBRW 496. Topics in Hebraic Studies (1-4)

Topics in Hebraic language, literature, culture, and linguistics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit eight units.

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

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

History

In the College of Arts and Letters

OFFICE: Adams Humanities 4210

TELEPHONE: 619-594-5262

FAX: 619-594-2210

<http://www-rohan.sdsu.edu/dept/histweb/dept.html>

Faculty

Emeritus: Bartholomew, Jr., Cheek, Chu, Cox, Cuniff, Davies, DuFault, Dunn, Filner, Flemion, Hamilton, Hanchett, Heinrichs, Heyman, Hoidal, Kushner, McDean, Munter, Norman, Oades, O'Brien, Peterson, Pincetti, Polich, Rader, Schatz, Smith, C., Smith, R., Starr, Steele, Stites, Stoddart, Strong, Vanderwood, Vartanian, Webb

Chair: Ferraro

The Dwight E. Stanford Chair in American Foreign Relations:
Cobbs Hoffman

The Nasatir Professor of Modern Jewish History: Baron

Professors: Baron, Christian, Cobbs Hoffman, Ferraro, Kornfeld

Associate Professors: Colston, Elkind, Kuefler, Wiese

Assistant Professors: Campbell, DeVos, Edgerton, Passananti, Pollard, Putman, Schmidt, Yeh

Lecturers: Beasley, Castleman, Crawford, Grimshaw-White, Guthrie, Hay, Kenway, Lide, Mahdavi-Izadi, McKanna, Nobiletti, Putko, Roy, Yursa

Offered by the Department

Master of Arts degree in history.

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

Minor in history.

The Dwight E. Stanford Chair in American Foreign Relations

A gift from alumnus Dwight E. Stanford, who earned a bachelor's degree in American history in 1936 from San Diego State College (now SDSU), established The Dwight E. Stanford Chair in American Foreign Relations. The holder of the Chair is Elizabeth Cobbs Hoffman, a distinguished scholar-teacher who is an expert on economic and political relations between the United States and the Third World, and on the history of the Cold War.

The Nasatir Professor of Modern Jewish History

The Nasatir Professorship was established in honor of the late Professor Abraham Nasatir, a specialist in European colonial history in North America. Nasatir taught history at SDSU for 46 years and was active in the community as an advocate of Jewish education. The Professorship is now held by a distinguished scholar of European intellectual history and Holocaust studies, Lawrence Baron, director of SDSU's Lipinsky Institute for Judaic Studies.

The Major

History is the study of humanity's recorded past, encompassing almost all aspects of human activity and behavior. The arts, sciences, technology, economics, politics, war, ideology, and social attitudes all constitute the subject of history.

The purpose of history education is not primarily the accumulation of information on particular events, regions, or cultures, but rather the development of 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. To be admitted to the history major, students must meet the following criteria:

- 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);
- Complete a minimum of 60 transferable semester units;
- Have a cumulative GPA of 2.40 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Advising

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

History Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22051)

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

A minor is not required with this major.

Preparation for the Major. History 100, 101, and six units selected from History 105, 106, 109, 110, 115, or 116. (12 units)

These prerequisite courses may not be taken Cr/NC and must be completed with a minimum GPA of 2.20 and a grade of C or higher in each class.

Language Requirement. Students will be required to successfully complete the third college semester or fifth college quarter or four years of high school in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Students must have fulfilled the Writing Proficiency Assessment with a score of 10 or above before taking History 400W and earn a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units in history to include History 400W; three units from History 450W, 451, or 452, and a minimum of nine units in field (a) Thematic, Comparative, and Interdisciplinary History; six units in field (b) The Ancient through Early Modern World; and nine units in field (c) The Modern World. At least nine upper division units must be at the 500-level. Up to six units from other departments may be applied to the history major upon written approval of the undergraduate adviser. It is the student's obligation to determine which courses fulfill his/her field requirements.

History Minor

The minor in history consists of a minimum of 18 units in history to include six sequential units in the lower division. Twelve units must be in upper division history, distributed in no more than two of the fields listed under the history major.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

History Honors Thesis

The department offers undergraduates of superior achievement the opportunity to write a history honors thesis leading to special recognition upon graduation. History 490, Senior Honors Thesis, is open to students who rank in the top 20 percent of senior history majors and who have successfully completed History 400W. Interested students should consult the undergraduate adviser in the History department.

Courses (HIST)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

HIST 100. World History (3)

Growth of civilizations and interrelationships of peoples of Europe, Asia, Africa, and the Americas to 1500.

HIST 101. World History (3)

Modern history from a global perspective, 1500 to present.

HIST 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.

HIST 106. Western Civilization Since the Sixteenth Century (3) (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.

HIST 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.

HIST 110. American History Since the Civil War (3) (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 identities and institutions. Satisfies the American Institutions requirement in American history and California government.

HIST 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.

HIST 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.

HIST 296. Experimental Topics (1-4)

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

HIST 299. Special Study (3)

Prerequisite: Consent of department chair and instructor.
Individual study.

UPPER DIVISION COURSES (Intended for Undergraduates)

HIST 400W. Historian's Craft (3) I, II

Prerequisites: Twelve units in history including History 100, 101, and six units selected from History 105, 106, 109, 110, 115, or 116. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Theory and practice of history through writing. Historical theory, use of evidence, research methods, bibliography, historiography, and historical interpretation in some field of history.

HIST 418. History of Britain (3)

Prerequisite: Upper division standing.

Survey of British history from its origins to the contemporary age. Emphasis on political institutions, religion, society, economy, the arts. (Formerly numbered History 308.)

HIST 450W. The Writing of History (3) I, II

Prerequisites: History 400W with a grade of C (2.0) or better and a minimum of 15 upper division units in history. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Historical methods and research in selected aspects of history. Includes a major research paper based on primary sources.

HIST 451. Historians and the Public (3)

Prerequisites: History 400W with a Grade of C (2.0) or better and a minimum of 15 upper division units in history.

Analysis and practice of ways historians preserve, research, and interpret past for public audiences. Topics include historic preservation projects, parks, museums, archives, and living history programs. Includes a major analytical essay or public history project.

HIST 452. Advanced Internship in Applied History (3)

Prerequisites: History 400W with a Grade of C (2.0) or better and a minimum of 15 upper division units in history.

Supervised field placement in applied history: campus and community archives, museums, government, and other historical agencies. Emphasis on critical analysis, writing, and historiography.

HIST 490. Senior Honors Thesis (3) I, II

Prerequisite: History 400W; open to history majors with senior standing and permission of the honors thesis adviser.

Directed research on a historical topic chosen in consultation with the honors adviser, and completion of a senior honors thesis. Required of students wishing to graduate with a certificate of recognition in history.

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

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

**Field (a). Thematic, Comparative, and
Interdisciplinary History**

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

HIST 402. History of Childhood (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.

HIST 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.

HIST 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.

HIST 435. History Through Film (3)

Critical analysis of selected historical problems, eras, and events, using film as the principal historical document. See *Class Schedule* for specific content. Maximum credit six units.

HIST 436. Modern Jewish History in Feature Films (3) I

Two lectures and two hours of activity.

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

Representations of twentieth century Jewish history in feature films. Topics include persecutions of Jews in Czarist Russia and Nazi occupied Europe, social mobility in the United States and national sovereignty in Israel.

HIST 440. The Holocaust and Western Civilization (3) I

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities.

German campaign to eliminate Jews during World War II. Anti-Semitic background, both Christian and racial; rise of Adolf Hitler and implementation of "the final solution"; responses by Jews and non-Jews in the Western world.

HIST 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.

HIST 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.

HIST 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.

HIST 486. World War II (3)

Causes of World War II, its course, and its legacy for today's world.

HIST 488. Modern Jewish History (3) II

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities.

Social, religious, and intellectual life of European Jewry from Middle Ages to present; political struggle for emancipation; anti-Semitism, the Holocaust, and establishment of state of Israel.

HIST 495. Internship in Applied History (3)

Nine to ten hours.

Prerequisites: Nine units in history. History 451 for some students (see instructor).

Supervised field placement of students in campus and community archives, historical museums, and other historical agencies. Practical experiences related to studies within history curriculum.

HIST 496. Issues in History (1-4)

Examination of selected problems and current issues in history. May be repeated with change of content. Maximum credit six units with change of content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Refer to *Class Schedule* for specific content.

- A. Thematic, Comparative, and Interdisciplinary History
- B. The Ancient Through Early Modern World
- C. The Modern World

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

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

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

HIST 500. Topics in Ancient History (3)

Prerequisite: Upper division standing.

Variable topics in ancient history throughout the world may include: Women in Greek and Roman societies, magic in the Greco-Roman World, Silk Roads, and pre-contact Mesoamerica. See *Class Schedule* for specific topic. May be repeated with new content. Maximum credit six units.

HIST 527. The Holocaust in Feature Films (3) II

(Same course as European Studies 527.)

Two lectures and two hours of activity.

Prerequisite: Upper division or graduate standing.

Depiction of the Nazi policy of destroying European Jewry and its impact on the perpetrators, bystanders, victims, and the post-war world in feature films.

HIST 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.

HIST 580. Topics in the History of War and Violence (3)

Prerequisite: Upper division standing.

History of war and violence may include: Violence in Africa, modern genocide, trauma and modern East Asia, social suffering in historical perspective. See *Class Schedule* for specific topic. May be repeated with new content. Maximum credit six units.

HIST 581. Topics in Urban History (3)

Prerequisite: Upper division standing.

Variable topics in urban history may include: The city in United States history, Chinatowns, suburbs and suburbanization, urban politics. See *Class Schedule* for specific topic. May be repeated with new content. Maximum credit six units.

HIST 582. Topics in Social and Cultural History (3)

Prerequisite: Upper division standing.

Variable topics in the social and cultural history may include: Ritual in early modern Europe, radicals and revolutionaries, intellectuals and society, families in former times, and American popular culture. See *Class Schedule* for specific topic. May be repeated with new content. Maximum credit six units.

HIST 583. Topics in History of Gender and Sexuality (3)

Prerequisite: Upper division standing.

Variable topics in history of gender and sexuality may include: Gay and Lesbian history, Asian American gender and sexuality, genders in Latin America. See *Class Schedule* for specific topic. May be repeated with new content. Maximum credit six units.

HIST 584. Topics in Environmental History (3)

Prerequisite: Upper division standing.

Variable topics in environmental history may include: Press, politics, environment, world environmental history, water and society. See *Class Schedule* for specific topic. May be repeated with new content. Maximum credit six units.

HIST 596. Selected Studies in History (1-4)

Topics in various fields of history, such as biography, war, science, technology, urbanization, minority groups, immigration, and capitalism. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree

Field (b). The Ancient Through Early Modern World

UPPER DIVISION COURSES (Intended for Undergraduates)

HIST 407. Early Modern Europe (3)

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

Early modern Europe from Renaissance to French Revolution. Social, cultural, economic, political, and intellectual trends, development of nation-states, and sources of continental conflict.

HIST 409. United States History for Teachers (3)

Prerequisites: Upper division standing and satisfactory completion of Writing Competency requirement.

United States history from pre-colonial period through Reconstruction with emphasis on historiography, bibliography, and relationship between philosophy of history and teaching. Satisfies the American Institutions requirement in American history and United States constitution. Required of social science single subject majors. Not open to students with credit in History 310A or 413 or liberal studies majors.

HIST 411. World History for Teachers (3)

Prerequisites: Upper division standing, 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.

HIST 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.

HIST 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.

HIST 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.

HIST 473. Middle Eastern History from the Advent of Islam to 1500 (3)

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.

HIST 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.

HIST 496. Issues in History (1-4)

Examination of selected problems and current issues in history. May be repeated with change of content. Maximum credit six units with change of content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Refer to *Class Schedule* for specific content.

- A. Thematic, Comparative, and Interdisciplinary History
- B. The Ancient Through Early Modern World
- C. The Modern World

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

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

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

HIST 501. History of Ancient Near Eastern Civilizations (3)

Major civilizations of Near East from the origin of civilization to Roman Conquest, including Egyptians, Babylonians, Hebrews and Persians. Social, political, and religious problems.

HIST 502. Ancient Greece (3)

Greek history from prehistoric period through Age of Alexander the Great. Emphasis on political, social, cultural and institutional developments and historiography. Secondary attention to military, economic, and religious topics.

HIST 503. Ancient Rome (3)

Roman history from origins of Rome to fall of the Empire. Emphasis on political, social, cultural and institutional developments and historiography. Secondary attention to military, economic, and religious topics.

HIST 504. The Early Middle Ages (3)

Europe and Mediterranean 300-1100 C.E. through various approaches: political, economic, social, and cultural. Collapse of Roman Empire, transformation of classical culture and regions that claimed its heritage: Christian kingdoms of western Europe, Byzantine, and Muslim Arab empires.

HIST 505. The Later Middle Ages (3)

Europe and the Mediterranean 1100-1450 C.E. through various approaches: political, economic, social, and cultural. Development of Christian kingdoms of western Europe and relationship to Byzantine empire, Muslim Arab and Turkish states.

HIST 506. The Renaissance (3)

Intellectual, artistic, social, and economic transformation in Europe from fourteenth to seventeenth centuries.

HIST 507. The Reformation (3)

Continental Europe, 1500-1648. Split of Christendom; political and intellectual dissent; social fabric of family life; relationship between gender, class, and power; cultural stratification of European society.

HIST 513. Early Scandinavia (3)

The formation and development of the Scandinavian kingdoms from the Viking Age to the end of the Napoleonic Wars. (Formerly numbered History 513A.)

HIST 528. Social History of Early Modern Europe (3)

Historical survey of European society emphasizing changes in the family, health, diet, standard of living, urbanism, crime, migration, and literacy, from 1350 to beginning of Industrial Revolution.

HIST 530. Colonial America (3)

Settlement and development of the English colonies in North America through the mid-eighteenth century. Contact of cultures, social structure, labor systems, religion, popular values, problems of imperial control, and political culture.

HIST 532. Topics in Early American History (3)

Prerequisites: Upper division standing and three units in history at the college level.

Variable topics in history of colonial America and the early republic. Possible topics include: Women and the Family; Race, Class and Labor; American Revolution; Religion and Politics; Immigrants' Experiences. See *Class Schedule* for topic. May be repeated with new content. Maximum credit six units.

HIST 550. Colonial Mexico (3)

Prerequisite: History 115, 116, 415, or 416.

Social history of Mexico from pre-contact through early national period using primary and secondary sources. Processes of social and cultural negotiation involving gender, religion, environment, medicine, and urban experience.

HIST 563. Southeast Asia to 1800 (3)

Cultural traditions of Southeast Asian people. Examines nature of the state, interstate relations, evolution of indigenous institutions, and influences of India, China, Islam, and the West to end of the eighteenth century.

HIST 566. Chinese Civilization: The Great Traditions (3)

China's institutional and cultural development from ancient to pre-modern times. Emphasis on traditional philosophy, religions, literature, and the arts.

Field (c). The Modern World**UPPER DIVISION COURSES
(Intended for Undergraduates)****HIST 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 nation-states, and sources of continental conflict.

HIST 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.

HIST 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.

HIST 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.

HIST 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.

HIST 445. California History (3)

California history from pre-colonial societies to present. Emphasis on early colonial societies, economy, environment, politics, race, gender, and California's place in popular culture. Not open to students with credit in History 444 and 445 if both courses were taken prior to fall 2004.

HIST 474. The Middle East Since 1500 (3)

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

Middle Eastern history since 1500 C.E.; Islamic empires, European colonialism, nationalism, and modernization.

HIST 476. History of Africa Since the Nineteenth Century (3)

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

History of colonial and post colonial Africa nineteenth century to the present.

HIST 496. Issues in History (1-4)

Examination of selected problems and current issues in history. May be repeated with change of content. Maximum credit six units with change of content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Refer to *Class Schedule* for specific content.

- A. Thematic, Comparative, and Interdisciplinary History
- B. The Ancient Through Early Modern World
- C. The Modern World

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

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

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

HIST 512A. The Great War: A Turning Point in European History (3)

Forces and events that shaped Europe in period prior to and during World War I, 1890-1919.

HIST 512B. The Age of Dictators and Contemporary Europe (3)

Europe in the age of dictatorship, world war, decline, and recovery.

HIST 514. The French Revolution and Napoleonic Era (3) I

Prerequisites: History 105 and 106.

France on the eve of the Revolution; the Great Revolution, 1789-1799, the Napoleonic Era.

HIST 515. Globalization in Historical Perspective: 1500 to the Present (3) I

Prerequisite: Upper division standing.

Global movements of people, goods, and capital since 1500. Historical trends in labor and productivity, relationship of policy to economic growth, convergence and divergence, and impact of economic globalization on human welfare and the environment.

HIST 517. Modern Germany (3)

Political, social, and economic history of Germany from 1848 to present.

HIST 518. Russia and the Soviet Union (3)

Political, social, and economic development of Russia in Europe and Asia. (Formerly numbered History 518B.)

HIST 533A. The Jacksonian Era (3)

Territorial expansion, democratic politics, revivalism, and the slavery controversy.

HIST 533B. Civil War and Reconstruction (3)

The Civil War and Reconstruction, emphasizing political affairs and the role of Lincoln.

HIST 535. The Age of Roosevelt (3)

The United States in Depression, War, and Cold War. (Formerly numbered History 535B.)

HIST 536. The United States Since World War II (3) I, II

Major foreign and domestic issues confronting the United States, and the government policies and popular movements generated in response.

HIST 539. Topics in the History of the American West (3)

Prerequisites: Upper division standing and three units of history at the college level.

Selected topics in history of American West such as Westward movement; Southwest borderlands; gender and the frontier; new western history. May be repeated with new content. Maximum credit six units.

HIST 540. Environmental History of the United States (3)

The relationship of Americans to their environment from colonial times to the present with emphasis on how attitudes and values have affected personal behavior and public policy toward the land.

HIST 543. American Involvement in Vietnam 1941-75 (3)

Prerequisites: Upper division standing and six units in history.

Causes and costs of America's longest war: the war's beginning, United States involvement, role of media and antiwar movement, American withdrawal, impact of war on Southeast Asia and the United States.

HIST 544A. Early American Foreign Relations (3)

Development of American foreign relations from Colonial Period to the Spanish-American-Filipino War.

HIST 544B. Modern American Foreign Relations (3)

Development of American foreign relations since 1900.

HIST 545. Constitutional History of the United States (3)

Development of American constitutional ideals and institutions from colonial period to the present. Examines historical context of significant legal issues and constitutional cases. (Formerly numbered History 545A and 545B.)

HIST 551. Modern Mexico (3)

Prerequisite: History 115, 116, 415, or 416.

Social history of Mexico since early national period using primary and secondary sources. Processes of social and cultural negotiation involving gender, religion, environment, medicine, and urban experience.

HIST 552. Brazil (3)

Survey of history of Brazil from Portuguese backgrounds to present. Brazil as a tropical society. Recommended for students minoring in Portuguese.

HIST 558. Latin America in World Affairs (3)

History of Latin America's political and economic relations with Europe, the Soviet Union, the United States, and the Third World.

HIST 564. Southeast Asia in the Modern World (3)

Southeast Asian history since 1800 with attention to colonialism, sociocultural change, Chinese diaspora, nationalism and independence, and economic development. Considers transnational comparisons among Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam.

HIST 567. China's Century of Modernization (3)

China's modernization process from the early nineteenth-century Opium War through the People's Republic of China.

HIST 570. Japan in the Modern World (3)

Japan's emergence as a modern state since the nineteenth century, and ongoing struggle to redefine Japanese identity. Examines Japan's engagement with modernity as seen through changes in political discourse, gender relations, international relations, intellectual trends, and economic development.

HIST 574. Arab-Israeli Relations, Past and Present (3)

Arab-Israeli conflict and diplomacy over Palestine from perspectives of Zionism, Arab nationalism, and Great Power relations from nineteenth century to present.

HIST 585. Topics in the History of the Sixties (3)

Prerequisite: Upper division standing.

Variable topics in the history of the 1960s may include: America in the 1960s, Africa in the 1960s, politics and protests in 1960s, Europe in the 1960s. See *Class Schedule* for specific topic. May be repeated with new content. Maximum credit six units.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.

Hospitality and Tourism Management

OFFICE: Professional Studies and Fine Arts 436

TELEPHONE: 619-594-4964

FAX: 619-594-4443

<http://www.sdsu.edu/htm>

In the College of Business Administration and
the College of Professional Studies and Fine Arts

Faculty

Hospitality and Tourism Management is administered by the Hospitality and Tourism Management Program Committee. The program draws on courses offered by the faculty in the following areas: Accountancy, Exercise and Nutritional Sciences, Finance, Hospitality and Tourism Management, Information and Decision Systems, Management, Marketing, Recreation, Parks and Tourism.

Director: Carl Winston (Professional Studies and Fine Arts, General)

Internship and Placement Director: Brian Blake

Undergraduate Adviser/Resource Manager: Anne Rauh

Committee: Baker (Marketing), Capettini (Accountancy), Chung-Herrera (Management), LaMaster (Exercise and Nutritional Sciences), Lamke (Recreation, Parks and Tourism), Raafat (Information and Decision Systems), Sasidharan (Recreation, Parks and Tourism), Testa (Recreation, Parks and Tourism)

Offered by Hospitality and Tourism Management

Major in hospitality and tourism management with the B.S. degree in applied arts and sciences.

- Emphasis in hotel operations and management.
- Emphasis in restaurant operations and management.
- Emphasis in global tourism management.
- Emphasis in attractions, events, and convention management.

Admission to the Major

The hospitality and tourism management (HTM) major is a collaborative interdisciplinary degree involving the College of Business Administration and the College of Professional Studies and Fine Arts. To be admitted to an HTM major emphasis, students must meet the following criteria:

- a. Complete with a grade of C or higher: Accountancy 230; Finance 240; Information and Decision Systems 180 and 290; Economics 101 and 102; Hospitality and Tourism Management 201 and 223; Mathematics 120 (or other approved calculus course); and either Statistics 119 or Economics 201. These courses cannot be taken for credit/no credit (Cr/NC);
- b. Complete a minimum of 60 transferable semester units;
- c. Have a cumulative GPA of 3.0;
- d. Students who meet all requirements except the GPA may request to be placed on the waiting list. Students on the waiting list will be admitted on a case-by-case basis formulated around the program's exception policy. Contact the Hospitality and Tourism Management Program Office (PSFA-436) 619-594-4964, for more information.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

The Major

Hospitality and tourism management is an interdisciplinary major which culminates in a Bachelor of Science degree offered jointly by the College of Business Administration, a member of the American Assembly of Collegiate Schools of Business, and the College of Professional Studies and Fine Arts. This program provides students with a solid undergraduate program emphasizing basic business management principles and their specific application to the hospitality and tourism industry and its components that make up the industry. The program integrates a significant number of courses from diverse disciplines into a comprehensive theoretical and applied program necessary for success in the hospitality and tourism professions. The program is directed at management positions in the industry, positions that require a broad understanding of management and its application to the businesses and organizations that flourish in this sector of the international, national, state, and local economies.

Students select one of four emphasis areas for in-depth study; Hotel Operations and Management, Restaurant Operations and Management, Global Tourism Management or 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 (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 Cr/NC; the minimum grade in each course must be a C.

Emphasis in Hotel Operations and Management

Preparation for the Major. Hospitality and Tourism Management 201, 223; Accountancy 230; Economics 101, 102; Finance 240; Information and Decision Systems 180, 290; Mathematics 120 or 150; and Statistics 119 or Economics 201. (30-31 units)

These prerequisite courses may not be taken Cr/NC. The minimum grade in each class is C or higher.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 47 upper division units to include Hospitality and Tourism Management 301, 398, 421, 425, 427, 450, 460, 490, 498; Finance 323; Information and Decision Systems 302; Management 350, 352; Marketing 370; Recreation 304, 470.

Emphasis in Restaurant Operations and Management

Preparation for the Major. Hospitality and Tourism Management 201, 223; Accountancy 230; Economics 101, 102; Finance 240; Information and Decision Systems 180, 290; Mathematics 120 or 150; and Statistics 119 or Economics 201. (30-31 units)

These prerequisite courses may not be taken Cr/NC. The minimum grade in each class is C or higher.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 47 upper division units to include Hospitality and Tourism Management 301, 398, 421, 425, 450, 460, 490, 498; Finance 323; Information and Decision Systems 302; Management 350, 352; Marketing 370; Nutrition 303*, 303L*; Recreation 304, 470.

Emphasis in Global Tourism Management

Preparation for the Major. Hospitality and Tourism Management 201, 223; Accountancy 230; Economics 101, 102; Finance 240; Information and Decision Systems 180, 290; Mathematics 120 or 150; and Statistics 119 or Economics 201. (30-31 units)

These prerequisite courses may not be taken Cr/NC. The minimum grade in each class is C or higher.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 47 upper division units to include Hospitality and Tourism Management 301, 398, 411, 450, 460, 490, 498; Communication 371 or Management 357; Finance 323; Information and

Decision Systems 302; Management 350, 352; Marketing 370; Recreation 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 230; Economics 101, 102; Finance 240; Information and Decision Systems 180, 290; Mathematics 120 or 150; and Statistics 119 or Economics 201. (30-31 units)

These prerequisite courses may not be taken Cr/NC. The minimum grade in each class is C or higher.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 47 upper division units to include Hospitality and Tourism Management 301, 398, 431, 433 or 435, 450, 460, 490, 498; Finance 323; Information and Decision Systems 302; Management 350, 352; Marketing 370; Recreation 304, 470, 475.

* Prerequisites waived for this course.

Courses (HTM)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

HTM 201. Introduction to Hospitality and Tourism Management (3)

Hospitality and tourism industry with focus on basic management theories and principles as they apply to hospitality and tourism; basic structure, organization, and management of industry components and the services/products they deliver.

HTM 223. Hospitality Managerial Accounting and Controls (3)

Prerequisites: Hospitality and Tourism Management 201 and Accountancy 230.

Utilization of accounting information in decision-making, planning, directing, and controlling in hospitality and tourism management. Integrates areas of managerial accounting and controls with applications in hospitality industry. Not open to students with credit in Accountancy 220.

HTM 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

HTM 301. Service Leadership Development (2)

One lecture and two hours of activity.

Prerequisite: Hospitality and Tourism Management 201 and upper division major in hospitality and tourism management.

Service leadership theory and development in hospitality and tourism industry. Application of business models and industry metrics with focus on individual assessment and development of leadership competencies.

HTM 398. Internship I in Hospitality and Tourism (3) Cr/NC

Prerequisites: Hospitality and Tourism Management 201 and consent of internship coordinator.

Entry level experience in a hotel, restaurant, or tourism agency at a university approved site. Minimum 300 hours of quality work at agency required during semester and completion of agency-based project. Note: Only students who have been approved for placement by internship coordinator may enroll in this course.

HTM 411. Global Tourism Issues (3)

Prerequisite: Hospitality and Tourism Management 301.

Global perspectives of tourism development with emphasis on natural resource characteristics, their sustainability to generating tourist flow, concepts of ecotourism, adventure travel, visitor safety and security, and minimal impact, including economic, cultural, and socio-psychological factors.

HTM 413. Cultural Tourism (3)

Two lectures and two hours of activity.

Prerequisite: Hospitality and Tourism Management 301.

Relationship and effect of culture on travel and tourism experiences and impact and effect of tourism on cultures. Heritage tourism, travel globalization, cross-cultural understanding, and cultural resource attractions.

HTM 421. Restaurant Development and Operations (3)

Two lectures and three hours of laboratory.

Prerequisite: Hospitality and Tourism Management 301.

Restaurant and food service principles to operations of casual and fine dining restaurants with emphasis on cost/volume/profit relationships, forecasting demand and market share, market niche/positioning, sanitation and safety, scheduling, quality management, customer service, technology, and ambience/environment.

HTM 425. Property Management in Hospitality and Tourism (3)

Prerequisite: Hospitality and Tourism Management 301.

Development, planning, and maintenance of hospitality facilities. Real estate economics, income generation, lease and management contracts, building operations, project development sequencing, conceptual and space planning, financing, asset management, industry practices, renovation, and public relations.

HTM 427. Hotel Operations and Management (3)

Two lectures and two hours of activity.

Prerequisite: Hospitality and Tourism Management 301.

Hotel management and operations to include room reservations, housekeeping, front desk management, concierge, sanitation, safety, security, and bellstand. Revenue management, forecasting, measuring performance, transient versus group displacement, service quality, pricing and inventory management, ethics.

HTM 431. Convention and Meeting Management (3)

Two lectures and two hours of activity.

Prerequisite: Hospitality and Tourism Management 301.

Conference, convention, and meeting industry. Planning, developing, marketing, and implementing meeting and convention services with emphasis on staffing, budgeting, and logistics.

HTM 433. Destination Management Services (3)

Prerequisite: Hospitality and Tourism Management 431.

Role of convention and visitors bureaus and destination management companies in attracting visitors to an area and providing services at a destination including economic impact of visitor markets, incentive travel, marketing techniques, structure, and governance of businesses and services.

HTM 435. Sporting Events and Festival Management (3)

Prerequisite: Hospitality and Tourism Management 431.

Organization and administration of attraction-based events focusing on scheduling, financing, budgeting and revenue distribution, logistics, planning techniques, marketing, contracts, and staging considerations.

HTM 450. Venture and Entrepreneurial Management in Hospitality and Tourism (3)

Prerequisites: Hospitality and Tourism Management 301, Finance 323, Information and Decision Systems 302, Management 350, and Marketing 370.

Initiating, expanding, purchasing, and consolidating hospitality and tourism businesses; examination of entrepreneurial approach including concepts, theories, techniques, and practices of managerial innovation/implementation; analysis of entrepreneurial skills.

HTM 460. Legal and Policy Issues in Hospitality and Tourism (3)

Prerequisite: Hospitality and Tourism Management 301.

The law as it relates to hospitality and tourism with emphasis on legal/policy matters dealing with disabled and accessibility, consumer issues, safety and risk management, discrimination, business regulation, e-commerce, and ethical practices in the industry.

HTM 490. Strategic Management in Hospitality and Tourism (3)

Prerequisites: Hospitality and Tourism Management 450 and Marketing 370.

Problems and issues of strategic planning in hospitality and tourism businesses including methods, techniques, and models used to identify strategic issues and generate future-oriented action plans to implement change.

HTM 496. Experimental Topics (1-4)

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

HTM 498. Internship II in Hospitality and Tourism (3) Cr/NC

Prerequisites: Hospitality and Tourism Management 398 and Management 350, 352.

Advanced experience in a hotel, restaurant, or tourism agency in student's chosen emphasis at a university approved site. Minimum of 300 hours of quality work at agency required during semester in addition to completion of agency-based project.

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

Prerequisite: Consent of special study adviser.

Individual study. Maximum credit six units.

Humanities

In the College of Arts and Letters

OFFICE: Adams Humanities 4231
TELEPHONE: 619-594-5186
FAX: 619-594-1004
<http://clasxhum.sdsu.edu>

Faculty

Emeritus: Cutter, Eisner, Genovese
Chair: Genovese
Professor: 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)

Language Requirement. (Select one, 14-28 units)

Arabic 101, 102, 201, 202; and one three-unit upper division course taught in the language. (19 units)
Chinese 101, 102, 201, 202; and one three-unit upper division course taught in the language. (23 units)
French: Four courses from French 100A, 100B, 200, 201, 210, 220, 221; and one three-unit upper division course taught in the language. (19 units)
German: Four courses from German 100A, 100B, 202, 205A, 205B; and one three-unit upper division course taught in the language. (20-21 units)
Greek: Either Classics 101G-202G or 250G; and Classics 303G-304G. (14-16 units)
Italian 100A, 100B, 201, 210; and one three-unit upper division course taught in the language. (19 units)
Japanese 111, 112, 211, 212; and one three-unit upper division course taught in the language. (28 units)
Latin: Classics 101L-202L or 250L; and Classics 303L-304L. (14-16 units)
Portuguese 101, 201, 301, 401. (16 units)
Russian 100A, 100B, 200A, 200B; and one three-unit upper division course taught in the language. (23 units)
Spanish: Spanish 101, 102, 103, 202, 211, 212; and Spanish 301 or 302. (25 units)

See foreign language departments for equivalents. This fulfills language degree requirement for the B.A. degree in Liberal Arts and Sciences.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508W or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Humanities 460, 490; Asian Studies 458; 12 units from Classics 340, Humanities 401, 402, 403, 404; nine units from Art (art history), Classics, Comparative Literature, English, History, Humanities, Music 351A, 351B, 351D, 592, Philosophy, Religious Studies, Theatre 460A, 460B, or Women's Studies, with no more than three units in any discipline (at least three units must be taken in non-Western content; courses in Art, Comparative Literature, English, History, Philosophy, Religious Studies, or Women's Studies may be taken only with prior permission of major adviser).

Emphasis in European Humanities

Preparation for the Major. Humanities 101; History 105-106; and three units from Comparative Literature 270A, 270B, Humanities 140, Philosophy 103, Religious Studies 101, or Women's Studies 102. (12 units)

Language Requirement. (Select one, 14-23 units)

French: Four courses from French 100A, 100B, 200, 201, 210, 220, 221; and one three-unit upper division course taught in the language. (19 units)
German: Four courses from German 100A, 100B, 202, 205A, 205B; and one three-unit upper division course taught in the language. (20-21 units)
Greek: Either Classics 101G-202G or 250G; and Classics 303G-304G. (14-16 units)
Italian 100A, 100B, 201, 210; and one three-unit upper division course taught in the language. (19 units)
Latin: Classics 101L-202L or 250L; and Classics 303L-304L. (14-16 units)
Portuguese 101, 201, 301, 401. (16 units)
Russian 100A, 100B, 200A, 200B; and one three-unit upper division course taught in the language. (23 units)
Spanish: Spanish 101, 102, 103, 202, 211, 212; and Spanish 301 or 302. (25 units)

See foreign language departments for equivalents. This fulfills language degree requirement for the B.A. degree in Liberal Arts and Sciences.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or English 508W or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include Classics 340, Humanities 401, 402, 403, 404 and 490; three units from Geography 336, Political Science 301A, 301B, or 302; nine units from European content courses in Art (art history), Comparative Literature, English, History, Humanities, Music 351A, 351B, Philosophy, Religious Studies, Theatre 460A, 460B, or Women's Studies 340, with no more than three units in any discipline (courses in Art, Comparative Literature, English, History, Philosophy, or Religious Studies may be taken only with prior permission of major adviser). (Some upper division courses in the major may have prerequisites not included among courses in the preparation for the major.)

Humanities Minor

The minor in humanities consists of a minimum of 18 units, of which at least 12 units must be upper division and at least 12 units must be in Humanities; three to six units must be selected from Humanities 460 and Asian Studies 458; three units may be selected from Classics 140 or Comparative Literature 270A.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (HUM)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

HUM 101. Introduction to Humanities (3)

Preliminary investigation: How values and ideals are expressed in literary, artistic, and intellectual achievements of individuals and civilizations throughout the world.

HUM 140. Mythology (3)

Comparative themes and figures from various mythologies of the world. Interpretation of myths; their influence on art, culture, and history.

HUM 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

HUM 310. French Civilization (3)

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

French civilization from Middle Ages to present. Artistic, intellectual achievements and cultural movements.

HUM 320. German Civilization (3)

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

German civilization of medieval, Renaissance-Reformation, and modern periods. Artistic, intellectual achievements and cultural movements.

HUM 330. Russian Civilization (3) I

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

Russian civilization from Middle Ages to present. Artistic, intellectual achievements and cultural movements.

HUM 340. Italian Civilization (3)

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

Italian civilization of medieval, Renaissance, Baroque, and modern periods. Artistic, intellectual achievements and cultural movements.

HUM 370. Humanities in America (3) I

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

Great literary, artistic, and intellectual traditions and achievements in America. From Neoclassicism to Postmodernism.

HUM 401. The Medieval Heritage (3) I

Prerequisites: History 105, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

European civilization of the Middle Ages. Artistic and intellectual achievements and cultural movements of the Romanesque and Gothic periods.

HUM 402. The Renaissance (3) II

Prerequisites: History 105, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

European civilization of the humanistic Renaissance. Artistic and intellectual achievements and cultural movements from the early Renaissance through the Reformation and Mannerism.

HUM 403. The Baroque and the Enlightenment (3) I

Prerequisites: History 106, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

European civilization of the seventeenth and eighteenth centuries. Artistic and intellectual achievements and cultural movements: Baroque and Rococo, Enlightenment and Neoclassicism.

HUM 404. The Modern European Heritage (3) II

Prerequisites: History 106, and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Modern European civilization. Artistic and intellectual achievements and cultural movements. From Romanticism to Postmodernism.

HUM 460. African Civilizations (3)

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

Interdisciplinary survey of sub-Saharan African civilizations, emphasizing religion, literature, and the arts from ancient times to the present.

HUM 490. Senior Seminar in Classics and Humanities (3)

Prerequisites: Classics or humanities major with more than 90 units; others with consent of department chair.

Senior capstone seminar in major. Discussion and research on topic in classics and humanities. Formal research paper.

HUM 496. Topics in Humanities (3)

Selected topics in literature and the arts. Comparative themes and critical approaches. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

HUM 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.

HUM 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, Feeney, Gibson, Hatch, Langenbach, Lyons-Lawrence, Norman, Schlesinger, Sherrard, Sondak, Spaulding, Straub

Chair: Penrose

Professors: Beatty, Flatley, Koster, Lackritz, Penrose, Raafat, Vik, Yang

Associate Professors: Addo, Easton, A., Easton, G., Reinig, Shin

Assistant Professors: Jennex, Plice, Shu

Lecturer: Tyler

Offered by the Department

Master of Science degree in business administration.

Master of Business Administration.

Major in information systems with the B.S. degree in business administration.

Minor in information systems.

The Major

Good business decisions require good information. The purpose of an information system is to provide management with the information that is essential to decision making and to assist in interpreting that information.

Information Systems. Students interested in using computers to solve business problems and in devising new and more efficient solutions, should consider a major in information systems. The major is intended to prepare students for their first job in information systems, which is normally as a systems analyst. The systems analyst studies problems, designs solutions, and implements those solutions using computer hardware and software. The major will also prepare students for continued growth as a manager in information systems.

The employment outlook for information systems specialists is currently very good. Positive projections continue into the future. Many graduates who major in information systems assume the following positions: systems analysts plan the activities necessary to solve a business problem by structuring the problem in logical form, identifying the data needed, and specifying the procedures to be followed in programming the data processing; information systems specialists represent various departments of a business in assuring that each department's information processing needs are provided for effectively and efficiently; programmers and analysts plan and write computer programs to process business information; computer center managers direct the work of information processing in a company; and technical marketing specialists sell and coordinate the installation of computer systems.

Typical places of employment for information systems graduates include large businesses, government agencies, computer manufacturers, universities, and independent computer service organizations.

Business Honors Program

The Business Honors Program offers excellent upper division business students the opportunity to explore issues in our local, regional, and global business environments focusing on the social and ethical responsibility that business has to the community and society. Honors students will enroll in a one unit business honors seminar each semester. During their enrollment they will participate in activities to promote their academic and personal growth, documenting their work in a written portfolio.

Generally, students should apply to this program at the time of application to upper division business. Applicants must submit an essay with their application. Applicants must have a 3.6 cumulative GPA or good standing in the University Honors Program. Students not meeting these requirements may petition for admission to the program. Successful completion of the Business Honors Program will be recognized at graduation. Contact Dr. Carol Venable, School of Accountancy, for more information about this program.

Statement on Computers

Before enrolling in upper division courses in the College of Business Administration, students must be competent in the operation of personal computers, including word processing and spreadsheets. Business students are strongly encouraged to have their own computers capable of running word processing, spreadsheet, presentation, e-mail, and Internet applications such as those found in packages sold by major software publishers. Availability of on-campus computing resources can be limited due to increasing demand across the University.

Retention Policy

The College of Business Administration expects that upper division students will make reasonable academic progress towards the degree. Students earning less than a 2.0 average in their classes for two or more semesters may be removed from the upper division major and required to declare a non-business major.

Transfer Credit

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

Upper Division: It is the policy of the San Diego State University College of Business Administration to accept upper division transfer credits where (a) the course content, requirements, and level are equivalent to San Diego State University courses and (b) where the course was taught in an AACSB International—The Association to Advance Collegiate Schools of Business accredited program. Exceptions require thorough documentation evidencing the above standards.

Impacted Program

The information systems major is impacted. Before enrolling in any upper division courses in business administration, students must advance to an upper division business major and obtain a business major code. To be admitted to an upper division business major (accounting, finance, financial services, real estate, information systems, management, or marketing), students must meet the following criteria:

- Complete with a grade of C or higher: Accountancy 220 and 230; Finance 240; Information and Decision Systems 180 and 290 (290 is not required for the accounting major); Economics 101 and 102; Mathematics 120 (or other approved calculus course); and either Statistics 119 or Economics 201. These courses cannot be taken for credit/no credit (Cr/NC);
- Complete a minimum of 60 transferable semester units;
- Have a cumulative GPA of 2.9;

Students who meet all requirements except the GPA may request to be placed on the waiting list. While all spaces are usually filled by eligible students, if there is room in the program after all the fully-qualified students have been accommodated, students will be admitted from the waiting list in GPA order. Contact the Business Advising Center (BA-448), 619-594-5828, for more information.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

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 220, 230; Finance 240; Economics 101, 102; Mathematics 120 (or other approved calculus course); and Economics 201 or Statistics 119. (27-29 units)

These prerequisite courses may not be taken Cr/NC; the minimum grade in each class is C. **Additional progress requirements must be met before a student is admitted to an upper division major.**

Graduation Writing Assessment Requirement. Information and Decision Systems 396W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. Forty-two upper division units consisting of Information and Decision Systems 302, 306, 315, 380, 396W, 406, 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, 481, 482, 515, 520. A "C" (2.0) average is required in the courses stipulated here for the major.

A minimum of 60 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration, economics, and statistics. This means that at least two units of electives (upper or lower division) must be completed in areas other than business administration, economics, and statistics. 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 380, 406, 481, 482, 483, 492, 515, 520.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University. Students with a major in the College of Business Administration,

Hospitality and Tourism Management, or International Business may not complete a minor in the College of Business Administration.

Students must officially declare the minor before taking any upper division business courses. **Students must meet the prerequisites for the minor in effect at the time that they declare the minor.** The current prerequisites for admission to the information systems minor include completion of the following courses with a grade of C or better: Economics 101, 102, and a three unit course in statistics (Statistics 119 is recommended); completion of the General Education requirements in Communication and Critical Thinking; completion of an additional nine units in the department of the student's major, including at least six units of upper division courses. Students must also meet the GPA requirement in effect at the time that they declare the minor. Contact the Business Advising Center (BA-448) for admissions criteria and procedures.

Courses (IDS)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

IDS 180. Principles of Information Systems (3) I, II

Applications of computerized systems in business organizations. Basic concepts of computer organization, data processing systems, decision support systems and systems analysis. Solving business problems through use of spreadsheet software.

IDS 290. Business Communication (3) I, II

Prerequisite: Rhetoric and Writing Studies 100 and SDSU Writing Competency requirement.

Effective communication applied to business letters, memos, and long reports. Includes the organization, writing, and presentation of business documents using word processing software. Incorporates basic principles of speaking effectively for business.

UPPER DIVISION COURSES (Intended for Undergraduates)

IDS 301. Statistical Analysis for Business (3) I, II

Prerequisites: Mathematics 120; Economics 201 or Statistics 119. Approved upper division business major, business minor, or another major approved by the College of Business Administration. **Proof of completion of prerequisites required:** Copy of transcript.

Statistical methods applied to business decision making.

IDS 302. Introduction to Operations Management (3) I, II, S

Prerequisites: Mathematics 120; Economics 201 or Statistics 119. Approved upper division business major, business minor, or another major approved by the College of Business Administration. **Proof of completion of prerequisites required:** Copy of transcript.

Production and operations management. Master scheduling, material requirements planning, inventory management, capacity planning, production activity control, location analysis, automation, computerized systems, layout planning, linear programming, decision making, queuing, simulation, quality control, project planning.

IDS 306. Information Systems Analysis (3) I, II, S

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration.

Systems development life cycle concept, with emphasis on analysis of requirements using structured methodology. Feasibility study, needs assessment, prototyping, application design alternatives.

IDS 315. Business Application Programming (3)

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration.

Computer programming for business applications. Appropriate data structures, control structures and program structures. Languages widely used in business applications.

IDS 375. Information Systems Technology (3)

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration.

Technologies underlying information systems, including computer organization and components, computer arithmetic, I/O and storage, multimedia processing, data communications fundamentals, local area networks, internetworking, and workgroup computing.

IDS 380. Data Management Systems (3) I, II

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration.

Methodology for applying data base management systems in design of information systems. Analysis of data base applications from perspectives of system users and systems analysts. (Formerly numbered Information and Decision Systems 480.)

IDS 390W. Reporting Techniques for Accountants (4)

Prerequisites: Credit or concurrent registration in Accountancy 321. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisite required:** Test score or verification of exemption; copy of transcript.

Advanced preparation of written and oral reports with application to professional needs of accountants.

IDS 396W. Reporting Techniques for Business Professionals (3) I, II

Prerequisites: Information and Decision Systems 290. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisite required:** Test score or verification of exemption; copy of transcript. Must be admitted to the upper division major in business.

Advanced preparation of oral and written reports used in business and other organizations. Individualized study of reports in student's career field.

IDS 406. Information Systems Design (3) I, II

Prerequisites: Information and Decision Systems 306, 315, 380.

Business information systems design, installation, and implementation as part of the systems development life cycle, with emphasis on structured design methodology.

IDS 460. Project Management (3)

Prerequisite: Credit or concurrent registration in Information and Decision Systems 302.

Management of small and large projects. Work breakdown structure milestones, project cost estimating and reporting, and single and multiple resource allocation/leveling. Computerized project management software.

IDS 481. E-Business/Web Development (3) I, II

Prerequisites: Information and Decision Systems 306, 315, 380, and credit or concurrent registration in Information and Decision Systems 406.

Issues and tools related to developing Internet-based applications with database integration through hands-on projects. Developing complex sets of Web pages by linking front-end Web browser languages and databases via back-end server languages, database queries, and middleware.

IDS 482. Information Technology Projects (3)

Prerequisite: Completion of at least 18 units of upper division information and decision systems courses.

Projects with San Diego area client organizations related to information technologies; topics may include: development life cycles, rapid application development, managing teams, client management, group interaction and conflict resolution, software metrics, and quality assurance techniques.

IDS 483. Networks and Data Communications (3) I, II

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration.

Fundamental data communications concepts, including voice communications and carrier service offerings, communications hardware, and network design. Global, enterprise, workgroup, and local area networks. Protocols and network operating systems. Network security and control.

IDS 492. Management of Information Systems (3) I, II

Prerequisite: Information and Decision Systems 306 and 380.

Proof of completion of prerequisites required: Copy of transcript.

Role of information systems in organizations from management perspective: strategic information system planning, systems administration, and management of end user computing. Management issues related to systems development and implementation. Management of computer operations and the computer center.

IDS 496. Selected Topics in Information Systems (1-4) I, II

Prerequisite: Consent of department chair.

Selected areas of concern in information systems. See *Class Schedule* for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

IDS 498. Investigation and Report (1-3) I, II

Prerequisites: Senior standing and consent of instructor.

A comprehensive and original study of a problem connected with information systems under the direction of one or more members of the information systems staff. May be repeated with new content. Maximum credit six units.

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

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

IDS 515. Advanced Programming for Business (3) I, II

Prerequisite: Information and Decision Systems 315 or knowledge of one computer programming language.

Advanced programming for business applications in widely used programming languages. Advanced concepts of data structures used in business programming, control structures, and program structures. Selection of programming languages for particular purposes. Not open to students with credit in Information and Decision Systems 383 or 384.

IDS 520. Java Programming for Business Applications (3)

Prerequisite: A course in C/C++ programming.

Comprehensive coverage of both Java applications and applets with emphasis on business application programs using graphical user interfaces. Business applications include multimedia programs, network processing, and database connectivity.

GRADUATE COURSES Refer to *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 Arabic, Asian Studies, Child and Family Development, European Studies, Gerontology, Humanities, International Business, International Security and Conflict Resolution, Jewish Studies, Latin American Studies, Liberal Studies, and Social Science.

Interdisciplinary Studies in Three Departments

In the Division of Undergraduate Studies

Office: Administration 101

Telephone: 619-594-5841

FAX: 619-594-7934

Advising

Preliminary approval of the major must be secured from the 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 student-designed major incorporating three different disciplines into a unified theme. The application process includes submission of an essay justifying a cohesive and rational master plan and the selection of upper and lower division coursework from three participating departments. Guidelines exist for *Performing Arts*.

Interdisciplinary Studies in Three Departments

With the B.A. Degree in Liberal Arts and Sciences (Major Code: 49993)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

The student master plan must be approved (AD-101) before this major may be declared.

A minor is not required with this major.

Preparation for the Major. A minimum of two courses (normally defined as six semester units) in each of the three departments selected in the major must be completed in the lower division as foundation for upper division courses. In departments where lower division offerings are insufficient to meet this requirement, the total minimum upper division requirement may be extended.

For students electing biology as one of the three departments for the Interdisciplinary Studies in Three Departments, the minimum requirement for the lower division preparation for the major is Biology 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.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units selected from three departments: (a) with no fewer than nine units from each of the three departments; and (b) with no fewer than six units from each of the three departments completed at San Diego State University; and (c) with minimum overall and San Diego State University grade point averages of 2.0 in each of the three departments.

Urban Studies

In the College of Arts and Letters and the College of Professional Studies and Fine Arts

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)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include 12 units selected from the following: Chicana and Chicano Studies 355; Economics 458; Geography 354; Political Science 422; Public Administration 310; and 18 units in an area of specialization (may include up to three units outside the specialization).

Anthropology. Required: Anthropology 580; and 12 units selected from Anthropology 349, 430, 444, 582, 583.

Economics. Required: Economics 441; and 12 units to include Economics 301 and nine units selected from Economics 320, 321, 401, 489, 507, 565.

Geography. Required: Geography 385 or 585; and 12 units selected from Geography 353, 381, 385, 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 515; and 12 units to include Political Science 321, 334, 335, 531.

Public Administration and Urban Studies. Nine units selected from Public Administration 350, 420, 510, 512, 520; and six units selected from one of the following groups: (a) 450, 460, 512, 520; (b) 320, 525.

Sociology. Required: Sociology 406* or 407*; and 12 units selected from Sociology 350, 355, 406* or 407* (if not taken as a required course), 443, 456, 457, 505, 537, 543.

* Additional prerequisites required.

Interdisciplinary Minors

African Studies Minor

Dr. Charles H. Cutter, Department of Classics and Humanities, is adviser for this minor.

The minor in African Studies consists of a minimum of 15 upper division units, to include History 475, 476; Humanities 460; Political Science 364; and Religious Studies 328*.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

* Additional prerequisites required.

Energy Studies Minor*

Dr. Alan R. Sweedler, Department of Physics, is adviser for this minor.

The interdisciplinary minor in energy studies consists of a minimum of 15 units to include Economics 452, Mechanical Engineering 352*, Physics 301; and six units selected from Art 247 or 347, Economics 453, Electrical Engineering 380*, 580*, Mechanical Engineering 582*, 586*, Geography 370, Political Science 334, or three units of 499 with the approval of the adviser.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses in the major department or required for the major may not be used to satisfy requirements for the minor.

* 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, 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, Philosophy 332, 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
TELEPHONE: 619-594-4505 / FAX: 619-594-7738
E-MAIL: ib@mail.sdsu.edu
<http://www.sdsu.edu/ib>

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

Faculty

International Business is administered by the International Business Program Committee. The program draws on courses offered by faculty in the following areas: Accountancy, Africana Studies, American Indian Studies, Anthropology, Art, Asia Pacific Studies, Chicana and Chicano Studies, Chinese, Communication, Comparative Literature, Economics, English, European Studies, Finance, French, Geography, German, History, Humanities, Information and Decision Systems, Italian, Japanese, Latin American Studies, Linguistics, Management, Marketing, Philosophy, Political Science, Portuguese, Public Administration, Religious Studies, Rhetoric and Writing Studies, Russian, Sociology, Spanish, and Women's Studies.

Chair: Steven J. Loughrin-Sacco (European Studies)

Offered by International Business

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

Emphases in language: Chinese, 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 eight emphases in foreign language (chosen from Chinese, 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.

Semester Abroad Requirement

All International Business majors are required to complete a semester abroad. Students may satisfy the requirement by studying abroad through one of our approved exchange programs. Students must complete 12 units of coursework. At least two out of the four courses must be upper division business courses. Students must successfully complete all four courses with a passing grade otherwise the study abroad requirement will not have been met. Students must be upper division in the major prior to submitting the application to go abroad. Exceptions may be made in Chinese, Japanese, and Russian. Unapproved study abroad programs will not meet the requirement.

As an alternative to studying abroad at an approved exchange program, students may choose to complete an internship abroad in the region and language of emphasis. In order to meet this requirement, students must complete a minimum of 250 hours of work abroad.

Study Abroad Programs

The international business program currently has direct exchange agreements with: 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; Brazil: Pontificia Universidade Católica do Rio de Janeiro (PUC-RIO), Rio de Janeiro, and Universidade Federal do Parana, Curitiba; 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 Guanajuato, Guanajuato, Mexico; Universidad de San Francisco, Quito, Ecuador; Universidad de Valladolid, Valladolid, Spain; Universidad de Valparaíso, Valparaíso y Viña del Mar, Chile; and Université du Québec at Chicoutimi, Québec, Canada. Qualified International Business majors participating in an exchange program make normal progress toward the degree while generally paying SDSU fees only.

Internship Requirement

All students in the major must complete an internship in international business by enrolling in the International Business 495 course. Students have to be upper division in the major prior to completing their internship. Students may choose to complete an internship abroad, though this is not required. Students who choose to complete an internship abroad may meet the Semester Abroad Requirement, but pre-approval must be obtained from the International Business office.

Impacted Program

The international business major is an impacted program. To be admitted to the international business major, students must meet the following criteria:

- a. Complete with a grade of C or higher: Accountancy 220 and 230; Economics 101 and 102; Economics 201 or Statistics 119; Finance 240; and Information and Decision Systems 180. Courses cannot have been taken prior to Fall 1992. These courses cannot be taken for credit/no credit (Cr/NC);

- b. Complete or test out of one language sequence: Chinese 101, 102, 201, 202 (20 units); French 100A, 100B, 201, 210, 220, 221 (22 units); German 100A, 100B, 202, 205A, 205B (21 units); Italian 100A, 100B, 201, 210 (16 units); Japanese 111, 112, 211, 212 (24 units); Portuguese 101, 201 (10 units); Russian 100A, 100B, 200A, 200B (20 units); or Spanish 101, 102, 103, 202, 211, 212 (22 units);
- c. Complete with a grade of C or higher, the regional/cultural studies emphasis from **one** of the following regions: *Africa*: History 100 and 101; *Asia*: Six units selected from Asian Studies 100, 101, or 261; *Latin America*: Six units selected from History 115, 116 (recommended); Latin American Studies 101 (recommended); *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). These courses cannot be taken for credit/no credit (Cr/NC);
- d. Complete a minimum of 60 transferable semester units;
- e. Have a cumulative GPA of 2.90 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment). After satisfying the above supplementary admissions criteria, students must submit documentation (unofficial transcripts, grade cards, etc.) to the program adviser before they can be admitted to the upper division major.

Advising

All students admitted to the university with a declared major in International Business are required to attend an advising meeting with the program adviser during their first semester on campus.

International Business Major

**With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 05131)**

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major. International Business majors may not normally complete a minor in the College of Business Administration or in the language or regional/cultural emphases used to satisfy major requirements.

No courses in the preparation for the major may be taken for Cr/NC; **the minimum grade in each course in lower division business is C.**

Preparation for the Major. (Complete I, II, and III: 37-51 units)

- I. Business:** Accountancy 220, 230; Economics 101, 102; Economics 201 or Statistics 119; Finance 240; and Information and Decision Systems 180. (21 units)
- II. Language Emphasis** (choose one language): The lower division language course requirements may also be satisfied by successful results on certain standardized language examinations; contact the adviser of the appropriate language department for details. Students whose high school instruction was taught in a language other than English may not take that language as their emphasis in the major. (Exceptions can be made for students enrolled in dual or triple degree programs. Please see the International Business office for details.)

- † Chinese 101, 102, 201, 202. (20 units)
- French 100A, 100B, 201, 210, 220, 221. (22 units)
- German 100A, 100B, 202, 205A, 205B. (21 units)

Italian 100A, 100B, 201, 210. (16 units)

† Japanese 111, 112, 211, 212. (24 units) **(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. (20 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)

† 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: Six units selected from Asian Studies 100, 101, or 261.

Latin America: Six units selected from History 115, 116 (recommended); Latin American Studies 101 (recommended).

Middle East: History 100 and 101.

North America: Six units (one pair) selected from Chicana and Chicano Studies 141A-141B, History 109, 110, or 115, 116, or Political Science 101, 102.

Russia and Central Europe: Six units selected from Classics 140; European Studies 101; History 105, 106 (recommended).

Western Europe: Six units selected from Classics 140; European Studies 101; History 105, 106 (recommended).

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. (Complete I, II, and III below: 53-57 units) **A minimum grade point average of 2.0 in each of the three areas is required for graduation.**

I. Business. (All preparation for the major in the business and language portions of this major must be completed, plus additional supplementary admissions criteria must be met, before enrolling in any upper division courses in Business Administration):

Specialization: A minimum of 28 upper division units to include Finance 323, 329; Information and Decision Systems 302; Management 350, 405; Marketing 370, 376, and completion of one of the following areas of specialization:

Finance: Two 300 or 400-level courses in finance.

Management: Two 300 or 400-level courses in management. (Recommended: Management 357.)

Marketing: Two 300 or 400-level courses in marketing.

II. Language Emphasis (choose one language):

Chinese 301, 302, 431, 434. (12 units)

French 301, 302, 422, and 423. (12 units)

German 300, 301, 400, 430. (12 units)

Italian: 12 units selected from Italian 301, 305A, 305B, 421, 422 or 424.

Japanese 311, 312, 321 or 322, 411. (16 units) **(Not open to speakers of Japanese who have completed compulsory education through junior high school in Japan.)**

Portuguese 301, 401, 443, 534 (for Western Europe Regional/Cultural Emphasis) or 535 (for Latin America Regional/Cultural Emphasis). (12 units)

Russian 301, 303, 430, 501. (12 units)

Spanish 301, 302 (or 381 and either 350, 491 or 493), 307, 497 (12 units). Spanish 381 replaces 301 and 302 for U.S. Hispanics; see adviser in Spanish department.

Language Proficiency Assessment Requirement. Students are required to satisfy the Language Proficiency Assessment Requirement during or immediately following the semester in which they complete their last language course. **To clear the language proficiency assessment requirement, students must achieve a passing score on a language examination approved by the international business program.**

III. Regional/Cultural Studies Emphasis (Choose one region. A maximum of five courses may be applied to the major.) All international business majors are required to complete a study abroad or internship abroad experience of at least one semester in length. See the international business study abroad adviser to arrange for the study abroad, and the internship adviser to contract for the internship. Students who choose the study abroad option are still required to complete an internship (International Business 495). Students who choose the internship abroad option may earn credit for International Business 495.

Africa: International Business 495, 498, and a minimum of nine units, with no more than six units from one department selected from Africana Studies 463, 465, 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, 582*; Asian Studies 330, 458*, 459*, 570; Chinese 351@, 352, 431, 433@, 451@; Communication 371*; Comparative Literature 460, 530; Economics 330, 336*, 360, 365, 465; History 420, 421, 422, 480, 566, 567, 570; Japanese 321, 322, 412*, 421, 422, 496*; Philosophy 351, 575*; Political Science 362, 393*, 496*, 575*; Religious Studies 339*, 345*; Women's Studies 331.

Latin America: International Business 495, 498, and a minimum of nine units, with no more than six units from one department, selected from Anthropology 442, 582*; Art 562; Chicana and Chicano Studies 306, 310, 350A, 355, 375, 376, 380, 400; Communication 371*; Economics 336*, 360 (recommended), 365, 464, 565; Geography 323, 324, 353*; History 415, 416, 480, 550, 551, 552, 558; Latin American Studies 560, 580; Political Science 393, 482, 496*, 566, 567, 568, 575*; Portuguese 535; Public Administration 580*; Spanish 341, 342, 406A, 406B, 491*, 492*, 493*; Women's Studies 310*, 512, 580*.

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, 340, 350A, 355, 375, 380, 400, 498*; History 550, 551; Political Science 496*, 568; Public Administration 485; Spanish 342, 515*.

B. United States: Africana Studies 320, 321, 322, 471B; American Indian Studies 320, 400, 440; Anthropology 444, 445, 446; Art 560; Chicana and Chicano Studies 301, 303, 310, 320, 335, 350B, 376, 480; Communication 371*; Economics 330, 338; English 494, 519, 525; Geography 321, 353*,

354; History 450W, 442A, 442B, 445, 532, 536, 540, 544B, 545; Humanities 370; Linguistics 524; Political Science 305, 320, 321, 334, 335, 347A, 347B, 348, 422, 436, 478, 496*, 531; Public Administration 485; Religious Studies 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; History 518; Humanities 330; Political Science 359, 393*, 496*; Russian 311, 441, 470.

Western Europe: International Business 495, 498, and a minimum of nine units, with no more than six units from one department, selected from Anthropology 582*; Art 558; Communication 371*; Comparative Literature 512, 513, 514; Economics 330, 360; European Studies 301, 424, 501; French 305A, 305B, 421, 424; Geography 336, 353*; German 320, 430, 520*; History 407, 408, 480, 504, 505, 506, 507, 512A, 512B, 514*, 517, 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.

Courses (I B)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

I B 296. Topics in International Business (1-3)

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

I B 299. Special Study (3-6)

Prerequisite: Pre-International Business major.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Intended for Undergraduates)

I B 490. Senior Honors Thesis (3) Cr/NC I, II

Prerequisites: Senior standing and consent of honors thesis adviser.

Directed research or project on a topic related to international business chosen in consultation with the honors adviser and completion of a senior honors thesis. Required of students wishing to graduate with an Honors Certificate of Recognition in International Business.

I B 495. International Business Internship (3) Cr/NC/RP I, II

Prerequisites: Consent of instructor; upper division standing in the major.

Internships with international business firms, nonprofit organizations, and government agencies in U.S. and abroad. Work done under joint direction of activity sponsor and instructor. Project report and internship conferences required. Maximum credit three units.

I B 498. Doing Business Internationally (1) Cr/NC

Prerequisite: Upper division status in the major.

Required business customs and protocol course pertinent to all regions.

I B 499. Special Study (1-6)

Prerequisite: International business major.

Individual study. Maximum credit six units.

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

I B 596. Topics in International Business (1-3)

Prerequisite: Upper division standing.

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

Language Proficiency Assessment Requirement

For information regarding the Language Proficiency Assessment Requirement for Chinese, Italian, Japanese, Portuguese, and Russian, contact the International Business office.

Certificat professionnel

The International Business office administers the *Chambre de Commerce et d'Industrie de Paris Certificat de français professionnel* examination each May at SDSU. Students normally sit for the *Certificat* examination during or immediately following the semester they take French 423. **Passage of this examination is required to clear the Language Proficiency Assessment Requirement for the French language emphasis in international business.**

Examen Internacional de Negocios en Español

The International Business office administers the *Examen Internacional de Negocios en Español (EXIGE)* each semester at SDSU. Students sit for the *EXIGE* examination during or immediately following the semester they take Spanish 497. **Passage of this examination is required to clear the Language Proficiency Assessment Requirement for the Spanish language emphasis in international business.**

Zertifikat Deutsch für den Beruf

Passage of the Zertifikat Deutsch für den Beruf examination is required to clear the Language Proficiency Assessment Requirement for the German language emphasis in international business.

International Business Major Honors

The international business major offers high achieving undergraduates the opportunity to participate in an international business honors program leading to special recognition upon graduation. Honors candidates must achieve a 3.25 grade point average in the major upon entrance and upon exit, complete one year of study abroad, an internship abroad, and a minor or equivalent proficiency in a third language not already emphasized in the international business major.

The final criteria for graduating with honors in the major is completion of International Business 490, Senior Honors Thesis, which is open to those who have met all other honors requirements. Interested students should consult the academic adviser in the International Business Program office.

MEXUS Dual Degree

MEXUS is a transnational dual degree program between San Diego State University and universities in Mexico. Students have the option of choosing among three universities in Mexico: 1) CETYS University; 2) Universidad Autonoma de Baja California (UABC); and 3) Instituto Tecnológico de Estudios Superiores de Monterrey (ITESM). Students may enter the program at any one of these schools and must spend a minimum of one-and-one-half years of study each in the U.S. and in Mexico.

Participants in the MEXUS program are enrolled in the International Business major at San Diego State University.

In addition to completing 49 units of General Education requirements at SDSU, students in the MEXUS program must complete between 91-123 units in International Business courses.

Approximately one-half of all of these requirements are completed in Spanish while attending a school in Mexico. Successful participants earn both the Bachelor of Arts degree in liberal arts and sciences with a major in International Business, emphases in Spanish and Latin America from SDSU, and a equivalent degree from one of the three universities in Mexico.

SanBrazil Dual Degree

San Brazil is a transnational dual degree program between San Diego State University and Pontificia 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 Graduação em Administração de Empresas from PUC-Rio.

SanDiQué Dual Degree

The SanDiQué program is a partnership between San Diego State University and the University of Quebec. Students may enter the program at either of the two universities and must spend a minimum of one year of study in both the United States and Canada.

Participants in the SanDiQué program are enrolled in the International Business major at San Diego State University.

In addition to completing 49 units of General Education requirements at SDSU, students in the SanDiQué program must complete 81 units of international business courses. Approximately one-quarter of all these requirements are completed in French while attending school in Canada. Students are also required to participate in an internship program, which provides SanDiQué students with the opportunity to work for an international institution and to develop a network of contracts in the private or public community, a vital step toward employment after graduation.

San Paraíso Dual Degree

San Paraíso is a transnational dual degree program between San Diego State University (SDSU) and the Universidad de Valparaíso (UV). Students may enter the program at either of the two schools and must spend a minimum of one year of study each in the United States and in Chile.

Participants in San Paraíso are enrolled in the International Business major at San Diego State University.

In addition to completing 49 units of General Education at SDSU, students in the San Paraíso program must complete 76 units of international business courses. Approximately a quarter of all of these requirements are completed in Spanish while attending school in Chile. Successful participants earn both the Bachelor of Arts degree in liberal arts and sciences with a major in international business, emphases in Spanish and Latin America from SDSU and the Licenciatura en Negocios Internacionales from UV.

CaMexUS Triple Degree

CaMexUS is a transnational triple degree program between San Diego State University (SDSU), the Université du Québec à Chicoutimi (UQAC), and the Universidad Autónoma de Baja California (UABC). Students may enter the program at any of the three schools and must spend a minimum of one year of study in Canada, Mexico, and the United States.

Participants in CaMexUS are enrolled in the International Business major at San Diego State University.

In addition to completing 49 units of General Education requirements at SDSU, students in the CaMexUS program must complete 85 units of international business courses. Approximately a quarter of all of these requirements are completed in French while attending school in Canada, and another quarter of these requirements are completed in Spanish while attending school in Mexico. Successful participants earn three degrees: 1) the Bachelor of Arts degree in liberal arts and sciences with a major in International Business, emphases in French and North America from SDSU; 2) the Baccalaureat en Administration from UQAC; and 3) the Licenciatura en Negocios Internacionales from UABC.

PanAmerica Triple Degree

PanAmerica is a transnational triple degree program between San Diego State University (SDSU), Universidad de Valparaíso (UV), and Universidad Autónoma de Baja California (UABC). Students may enter the program at any of the three schools and must spend a minimum of one year of study in the Chile, Mexico, and the United States.

Participants in PanAmerica are enrolled in the International Business major at San Diego State University.

In addition to completing 49 units of General Education requirements at SDSU, students in the PanAmerica program must complete 88 units in International Business courses.

Approximately one-half of all of these requirements are completed in Spanish while attending school in Chile and Mexico. Successful participants earn the Bachelor of Arts degree in liberal arts and sciences with a major in International Business, emphases in Spanish and Latin America from SDSU, a Licenciatura en Negocios Internacionales from UV, and a Licenciatura en Negocios Internacionales from UABC.

Project North America

Project North America is a trilateral program designed to increase the educational opportunities for university students to study abroad in the United States, Canada, and Mexico. Students are immersed in the culture and language of each of the NAFTA partners.

Students enroll for one semester each in Canada and in Mexico, taking regular academic courses on transacting business in the host countries. The training and exchange curriculum is integrated into the student's academic plan. Credit is received for all foreign coursework and normal progress toward the degree is maintained.

Montpellier Diploma Program

Students must study one year at the University of Montpellier, France in order to receive the diploma in international business management.

International Security and Conflict Resolution

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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:

Gupta (Political Science); Greb (International Security and Conflict Resolution)

ISCOR Curriculum Committee: Alexseev (Political Science), Guang (Political Science), Gupta (Political Science), McIlwain (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.

Minor in international security and conflict resolution.

The Hansen Chair in Peace Studies

International Security and Conflict Resolution plays a central role in the administration of the Hansen Chair in Peace Studies, an endowed chair responsible for organizing and coordinating activities focusing on the impact of resolution of various world and regional disputes. Appointees to the chair also serve as a member of the Advisory Board of the Fred J. Hansen Institute for World Peace.

The Major

International security and conflict resolution is an interdisciplinary program leading to a Bachelor of Arts degree in liberal arts and sciences. The program requires and integrates coursework from natural sciences, social and behavioral sciences, and humanities.

In order to provide both breadth and depth for the courses of study, all students are required to complete a set of courses addressing the major themes of the development of global systems and the nature of conflict and conflict resolution. All students must select an integrated set of courses from different disciplines focused on an area of specialization related to international security and conflict resolution in global systems, in cooperation, conflict and conflict resolution, or in environment and security.

Those completing the major will be prepared for careers in business, government, international relations or nonprofit organizations at the local, state, national or international level as they relate to international security and conflict resolution. Alternatively, majors will be prepared to pursue graduate or professional studies in a particular discipline or area related to international security and conflict resolution.

Advising

Students are required to meet with the undergraduate adviser in order to declare the major. All students admitted to the university with a declared major in international security and conflict resolution are urged to meet with the undergraduate adviser during their first semester. 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 study abroad experience. To meet this requirement, majors must complete one of the following with the preapproved and written consent of the undergraduate adviser:

1. A CSU Study Abroad Program;
2. An SDSU Exchange Program;
3. An SDSU Semester Abroad Program;
4. An SDSU Study Travel Program;

5. An international security and conflict resolution internship abroad, independent study abroad, or thesis abroad;
6. International Security and Conflict Resolution 450.

See the undergraduate adviser to make arrangements to meet the study abroad requirement.

Preparation for the Major. (24 units) Economics 101, 102; History 101; Political Science 103; Religious Studies 101; and three units from each of the following groups:

1. Anthropology 102 or Geography 102;
2. Comparative Literature 270B, History 100, or Philosophy 101;
3. Economics 201, Political Science 201, Psychology 270 or Sociology 201, Statistics 119 or 250.

Recommended for General Education in the Natural Sciences: In the Life Sciences, Biology 100 or 101; in the Physical Sciences, Chemistry 100, Geography 101 or Physics 107.

Language Requirement. It is strongly recommended that international security and conflict resolution majors consider either a minor or a second major in a foreign language. In addition, international security and conflict resolution majors may wish to obtain language certification in a foreign language. A minimum competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement (excluding American Sign Language). Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include 18 units in International Security and Conflict Resolution 300, 301, 310, 320 and either 495 or 497; Political Science 375; and 18 units from one of the three specializations: Global Systems; Cooperation, Conflict, and Conflict Resolution; or Environment and Security.

Specialization in Global Systems

This specialization focuses on the political, economic, and social characteristics of global systems, which include the study of international relations, comparative regional studies, and internationally mobile populations. An understanding of global systems will provide the context for analyzing issues of international security, cooperation and conflict.

Requirements for specialization. A minimum of 18 units to include Economics 360; six units selected from International Security and Conflict Resolution 575; Economics 330; History 480; Political Science 577; six additional units from courses listed above or from Aerospace Studies 400B; Anthropology 350⁺⁺; Asian Studies 570; Chicana and Chicano Studies 306; Economics 336 or 365; Geography 312⁺, 554⁺; History 408 or 486 or 512A or 512B; History 543⁺⁺ or 544B; Political Science 361 or 478 or 479 or 555 or 560; Sociology 350⁺⁺; Women's Studies 580⁺; and three units from Asian Studies 459; Chicana and Chicano Studies 355; History 421, 474, 476, 564; Political Science 363, 364, 566. International Security and Conflict Resolution 450⁺ can be substituted for a maximum of one three unit course in this specialization with the approval and written consent of the undergraduate adviser.

Specialization in Cooperation, Conflict, and Conflict Resolution

This specialization is concerned with exploring the causes, nature, consequences, management, and resolution of conflict. It will consider the psychology, sociology, economics, politics and history of cooperation, conflict and conflict resolution. It will address issues of war and peace, nationalism, civil war, terrorism, human rights, and ethnic hostility as they impact international security.

Requirements for specialization. A minimum of 18 units to include three units of International Security and Conflict Resolution

421; nine units selected from Africana Studies 445⁺ or Psychology 340⁺⁺ or Sociology 410⁺⁺; Communication 371⁺⁺, 555⁺⁺; Philosophy 512⁺⁺; Political Science 302, 370, 531⁺⁺, or Sociology 457⁺⁺, or Women's Studies 530⁺; Political Science 577; Religious Studies 379 or Sociology 338⁺⁺⁺; Social Work 350; Sociology 433⁺⁺, 537⁺⁺; three units selected from Africana Studies 321⁺, 448; American Indian Studies 400; History 486, 512A, 514⁺, 533B, 574; Political Science 363, 364, 566; Sociology 355⁺⁺; Women's Studies 375, 536⁺⁺; and three units selected from International Security and Conflict Resolution 575; Africana Studies 325, 452⁺; Communication 408; Philosophy 329; Political Science 479; Public Administration 530⁺. International Security and Conflict Resolution 450⁺ can be substituted for a maximum of one three unit course in this specialization with the approval and written consent of the undergraduate adviser.

Specialization in Environment and Security

Issues related to the environment and the utilization of energy and natural resources are important aspects of international security and often are related to cooperation and conflict between nations and groups within states. The purpose of this specialization is to provide the student with the necessary background to better understand this aspect of international security and the management and resolution of conflict.

Requirements for specialization. A minimum of 18 units to include nine units selected from Biology 315⁺⁺; 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 International Security and Conflict Resolution 575; Biology 324⁺, 354⁺; Community Health Education 350; Economics 453, 489; Geography 378⁺, 570⁺, 574⁺; History 441; 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.

International Security and Conflict Resolution Minor

The minor in international security and conflict resolution consists of a minimum of 18 units to include International Security and Conflict Resolution 300, 301, 310, 320, Political Science 375 and three units selected from Anthropology 102, Economics 101, Geography 102, History 101, Political Science 103, or Religious Studies 101.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Study Abroad Requirement. All international security and conflict resolution minors are required to complete a study abroad experience. To meet this requirement, minors must complete one of the following with the preapproved and written consent of the undergraduate adviser:

1. A CSU Study Abroad Program;
2. An SDSU Exchange Program;
3. An SDSU Study Abroad Program;
4. An SDSU Study Travel Program;
5. International Security and Conflict Resolution 450.

See the undergraduate adviser to make arrangements to meet the study abroad requirement.

Courses (ISCOR)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES (Intended for Undergraduates)

ISCOR 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.

ISCOR 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.

ISCOR 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.

ISCOR 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.

ISCOR 421. Alternative Dispute Resolution: Theory and International Applications (3) I

Prerequisite: Upper division standing.

Theory of collaborative negotiation and mediation, practice of negotiation and mediation skills and techniques, and focus on personal styles of mediation and collaborative negotiating. Emphasis on resolving conflicts on the international level.

ISCOR 450. Study Abroad in International Security and Conflict Resolution (3)

Prerequisite: Upper division standing. *Class Schedule* may have other prerequisites.

Selected topics in international security and conflict resolution. Course taught abroad. Potential additional prerequisites and location of course and organizational meetings. May be repeated once with new content. See *Class Schedule* for specific content. Maximum credit six units.

ISCOR 495. Internship in International Security and Conflict Resolution (3) I, II

Prerequisites: Senior standing. Nine units of international security and conflict resolution core courses and nine units in selected specialization. Consent of instructor.

Supervised internship of 150 hours in government or nongovernmental agency, office or business in an area directly related to international security and conflict resolution.

ISCOR 496. Selected Topics in International Security and Conflict Resolution (1-3)

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

ISCOR 497. Thesis in International Security and Conflict Resolution (3) I, II

Prerequisites: Senior standing. Nine units of international security and conflict resolution core courses and nine units in selected specialization. Consent of instructor.

An original and comprehensive written description and analysis of a problem or problem area in international security and conflict resolution.

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

Prerequisites: Consent of instructor. Six units of international security and conflict resolution core courses and six units in specialization.

Individual study. Maximum credit six units.

UPPER DIVISION COURSE (Also Acceptable for Advanced Degrees)

ISCOR 575. Homeland Security (3)

Prerequisite: Upper division or graduate standing.

Evaluates components of homeland security. Research and analysis of homeland security policies and laws. Comparisons between homeland security policies and laws of various nations. Links between conflict abroad and homeland security in the United States. (Formerly numbered International Security and Conflict Resolution 475.)

Italian

In the Department of European Studies
In the College of Arts and Letters

OFFICE: Business Administration 304
TELEPHONE: 619-594-5111
FAX: 619-594-8006
E-MAIL: italian.coord@sdsu.edu

Faculty

Emeritus: Vergani, G., Vergani, L.
Chair: Benkov
Lecturers: Kehrenberg, Sylvers

Offered by the Department of European Studies

Major in European studies, with emphasis in Italian.

See European Studies.

Major in international business, with emphasis in Italian.

See International Business.

Minor in Italian.

Italian Minor

The minor in Italian consists of a minimum of 15 units taught in Italian, nine units of which must be in upper division Italian courses. Any course taught in English needs department approval to apply to the minor requirements.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Students who minor in Italian are strongly encouraged to participate in the California State University International Programs (CSU-IP) and other approved study abroad programs in Italian-speaking countries.

Interdisciplinary Studies in Three Departments

Students selecting Italian as one of their departments in this major must complete Italian 301, all lower division competency requirements, and at least two upper division Italian courses.

Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Italian to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Italian 201 or 210 or the equivalent level of achievement. The usual sequence of coursework is Italian 100A, 100B, and 201 or 210. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

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

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with

fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. **Four years** of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the language requirement.

Courses (ITAL)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

Native speakers of Italian will not receive credit for taking lower division courses in Italian except with advance approval from the department.

All lower division courses in Italian are taught in Italian.

No credit will be given for lower division courses taken after successfully completing any upper division Italian course taught in Italian.

No credit will be given when Italian 100A, 100B, 201/210, or 301 are taken concurrently or out of sequence. However, Italian 201 and 210 may be taken in any order or concurrently.

ITAL 100A. Elementary Italian I (5) I, II

Pronunciation, speaking and writing, readings on Italian culture and civilization, essentials of grammar. Not open to students who have completed three years of high school Italian unless the third course was completed five or more years ago.

ITAL 100B. Elementary Italian II (5) I, II

Prerequisite: Italian 100A or two years of high school Italian.

Continuation of Italian 100A. Not open to students who have completed four years of high school Italian unless the fourth course was completed five or more years ago.

ITAL 201. Reading and Speaking Italian (3) I

Prerequisite: Italian 100B or three years of high school Italian. Italian minors and international business majors are encouraged to enroll concurrently in Italian 210 when available. Recommended for students wanting to satisfy the language graduation requirement.

Emphasis on spoken language with readings of cultural material serving as a basis for discussion.

ITAL 210. Intermediate Grammar and Composition (3) II

Prerequisites: Italian 100B or three years of high school Italian. Italian minors and international business majors are encouraged to enroll concurrently in Italian 201 when available.

Comprehensive survey of Italian grammar at intermediate level. Study of a variety of prose models and practice in writing.

ITAL 296. Topics in Italian Studies (1-4)

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

Topics in Italian language and culture. May be repeated with new content. Taught in Italian. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

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

All upper division Italian courses are taught in Italian unless otherwise noted.

ITAL 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. Italian 301 is not open to students who hold the Italian secondary school diploma.

ITAL 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.

ITAL 305B. Italian Literature (3)

Prerequisites: Six units of 200-level Italian.

Continuation of Italian 305A from the Renaissance to the present.

ITAL 421. Italian Civilization (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.

ITAL 422. Issues in Italian Studies (3)

Interdisciplinary approach to major themes and figures of Italian culture. Emphasis on social, literary, artistic, and political movements underlying development of contemporary Italy.

ITAL 424. Italian Cinema (3)

Two lectures and two hours of activity.

Prerequisite: Completion of at least one upper division course in Italian.

Development of Italian cinema. Previewing lectures enhance cultural comprehension. Post-viewing discussions stimulate ideas for written work and final projects. Lectures and discussions in Italian.

ITAL 496. Selected Topics (1-4)

Topics in Italian language, literature, culture and linguistics. Conducted in English or in Italian. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit eight units.

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

Prerequisites: Italian 301 and 305A or 305B.

Individual study. Maximum credit six units. This course is intended only for students who are currently enrolled in or who already have credit for all upper division courses in Italian available in any given semester.



Japanese

In the Department of Linguistics and Oriental Languages
In the College of Arts and Letters

OFFICE: Business Administration 327

TELEPHONE: 619-594-5268

FAX: 619-594-4877

<http://www-rohan.sdsu.edu/dept/linguist/index.html>

Faculty

Chair: Kaplan

Professor: Higurashi

Associate Professor: Kitajima

Lecturer: Yamaga

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 of 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 Office of Student Testing, Research and Assessment at SDSU.

Note: Speakers of Japanese who have completed compulsory education through junior high school in Japan, or those who pass level one of the Japanese Language Proficiency Test, created and edited by The Association of International Education and the Japan Foundation, or equivalent, will receive no credit for Japanese 311, 312, 321, 322, 411, 412, 421, and 422.

Preparation for the Major. Japanese 111, 112, 211, and 212. (24 units) A maximum of 24 lower division units of Japanese courses may be used to satisfy degree requirements.

Language Requirement. The language requirement is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 32 upper division units in Japanese to include Japanese 311, 312, 321, 322, 411, 412, 421, and 422.

Japanese Minor

The minor in Japanese consists of a minimum of 24 units taught in Japanese, at least 12 units of which must be in upper division Japanese courses. Any course taught in English needs department approval to apply to the minor requirements.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of eight upper division units must be completed in residence at San Diego State University, and a proficiency level equal to that of Japanese 411 must be demonstrated.

Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Japanese to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Japanese 211 or the equivalent level of achievement. The usual sequence of coursework is Japanese 111, 112, and 211. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

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

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. **Four years** of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the language requirement.

Japanese Language Proficiency Test

The Japanese language proficiency test is taken to assess the proficiency level and to place students at the most appropriate level in the curriculum of the Japanese language program at San Diego State University. Students who have special backgrounds, and those SDSU students who took Japanese elsewhere, including SDSU students who participated in exchange programs, are required to meet with the program adviser and to take this examination.

Test dates and times are listed in the "Special Tests" section of the current *Class Schedule*.

Courses (JAPAN)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

Native speakers of Japanese will not receive credit for taking lower division courses except with advance approval from the department.

All lower division courses in Japanese are taught in Japanese.

No credit will be given for lower division courses taken after successfully completing any upper division Japanese course taught in Japanese.

No credit will be given for Japanese 111, 112, 211, 212 taken out of sequence.

JAPAN 111. Elementary Japanese I (6) I

Six lectures and one hour of laboratory.

Elementary language skills: fundamental grammar, idiomatic expressions, hiragana, katakana, and basic kanji characters. Reading, writing, speaking, oral-aural drills, and relationship between language and culture. Not open to students who have completed three years of high school Japanese unless the third course was completed five or more years ago. (Formerly numbered Japanese 101.)

JAPAN 112. Elementary Japanese II (6) II

Six lectures and one hour of laboratory.

Prerequisite: Japanese 111.

Continuation of Japanese 111. Preparation for Japanese 211. Not open to students who have completed four years of high school Japanese unless the fourth course was completed five or more years ago. (Formerly numbered Japanese 102 and 202.)

JAPAN 211. Intermediate Japanese I (6) I

Six lectures and one hour of laboratory.

Prerequisite: Japanese 112.

Continuation of Japanese 112. More kanji and grammar. Further development of language competence for advanced courses in Japanese. Preparation for Japanese 212. (Formerly numbered Japanese 201 and 303.)

JAPAN 212. Intermediate Japanese II (6) II

Six lectures and one hour of laboratory.

Prerequisite: Japanese 211.

Strengthening communication skills in Japanese; various literary styles; additional kyoiku kanji. Cultural values shaping modern Japanese society; intercultural communication. Preparation for Japanese 311.

JAPAN 296. Experimental Topics (1-4)

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

JAPAN 299. Special Study (1-3)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division courses in Japanese are taught in Japanese unless otherwise stated.

No credit will be given for Japanese 311, 312, 411, 412 taken out of sequence.

JAPAN 311. Third Year Japanese I (4) I

Four Lectures and one hour of laboratory.

Prerequisites: Japanese 212 and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Japanese majors.

Continuation of Japanese 212. Strengthening of communication skills in Japanese; various literary styles; all kyoiku kanji. Cultural values shaping modern Japanese society; intercultural communication. Preparation for Japanese 312.

JAPAN 312. Third Year Japanese II (4) II

Four lectures and one hour of laboratory.

Prerequisites: Japanese 311 and completion of the General Education requirement in Foundations II.C., Humanities. General Education prerequisite not required for Japanese majors.

Further strengthening of communication skills in Japanese; various literary styles; introduction of chugaku kanji. Social and economic issues in Japan and the U.S.; cultural values shaping business conduct in Japan; characteristics of Japanese management; intercultural communication. Preparation for Japanese 411.

JAPAN 321. Advanced Japanese Discourse (4)

Prerequisite: Japanese 212.

Varieties of Japanese such as broadcasting Japanese, lectures, business negotiations, and ceremonial discourses. Focus on listening comprehension.

JAPAN 322. Advanced Conversation Through Media (4)

Prerequisite: Japanese 311.

Development of advanced conversation skills through understanding and analysis of social and linguistic aspects of modern Japanese drama. Role play, practical vocabulary, and useful expressions; conversation on assigned topics.

JAPAN 411. Fourth Year Japanese I (4)

Prerequisite: Japanese 312.

Continuation of Japanese 312. Further strengthening of communication skills in Japanese; various literary styles; more chugaku kanji. Social and economic issues in Japan and in the U.S.; cultural values shaping business conduct in Japan; characteristics of Japanese management; intercultural communication. Preparation for Japanese 412.

JAPAN 412. Fourth Year Japanese II (4)

Prerequisite: Japanese 411.

Continuation of Japanese 411. Further strengthening of communication skills in Japanese; various literary styles; all joyo kanji. Social and economic issues in Japan and the U.S.; cultural values shaping business conduct in Japan; characteristics of Japanese management; intercultural communication.

JAPAN 421. Japanese Literature Through Text and Film (4)

Prerequisite: Japanese 312.

Japanese literature from earliest times to present. Major works of modern Japanese fiction as a literary genre and their cinematic inter- presentation.

JAPAN 422. Newspaper Reading and Advanced Composition (4)

Prerequisite: Japanese 411.

Advanced readings in general and specialized texts selected from current newspapers and magazines published in Japan. Discussion of text and development of related compositions.

JAPAN 496. Topics in Japanese Studies (1-4)

Topics in Japanese language, literature, culture and linguistics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit eight units.

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

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

Jewish Studies

In the College of Arts and Letters

OFFICE: Adams Humanities 4189
TELEPHONE: 619-594-5338

Faculty

Jewish studies is administered by the Modern Jewish Studies Executive Board of San Diego State University and the program administrator of the Consortial Modern Jewish Major of the California State University system. Faculty assigned to teach courses in modern Jewish studies are drawn from the Departments of English and Comparative Literature; European Studies; History; Linguistics and Oriental Languages; 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), Cummins-Lewis (English), Grossbard-Shechtman (Economics), Harris (Electrical and Computer Engineering), Kohn (Religious Studies), Koster (Information and Decision Systems), McIlwain (Public Administration), Moore (Religious Studies), Shapovalov (Russian), Strom (Teacher Education)

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 an 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.

“On matters of style, swim with the current; on matters of principle, stand like a rock.”

—Thomas Jefferson

Modern Jewish Studies Major

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

(Major Code: 15102)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on “Graduation Requirements.”

A minor is not required with this major.

Preparation for the Major. Jewish Studies 130 and either Religious Studies 100 or 101 or 103. (6 units)

Language Requirement. Hebrew 101, 102, and 201.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in “Graduation Requirements” section for a complete listing of requirements.

Major. A minimum of 36 upper division units. Fifteen upper division units for the modern Jewish studies major must be taken on the SDSU campus. The remaining courses can be taken via distance education from the CSU Jewish studies consortium or in Israel through the CSU International Programs.

Capstone Course (3 units). Majors enroll in Jewish Studies 496 to participate in a capstone experience which will consist of a week long conference of Jewish studies faculty and majors from universities participating in the consortium for panel discussions, lectures, and seminar meetings.

Culture and Society Area (9 units)

San Diego State University

Comparative Literature 405/English 405. The Bible as Literature (3)
History 436. Modern Jewish History in Feature Films (3)
History/European Studies 527. The Holocaust in Feature Films (3)
Russian 435. Russian and Central European Jewish Literature (3)

San Francisco State University

Jewish Studies 340. American Jewish Family and Identity (3)
Jewish Studies/International Relations/Political Science 430.
Israeli Democracy, Politics, and Society (3)
Jewish Studies 437/English 533/World and Comparative Literature 437. Holocaust and Literature (3)

CSU, Chico

- Modern Jewish and Israel Studies/Communication Studies 219. Israeli Public Address (3)
- Modern Jewish and Israel Studies/Communication Studies/Sociology 156. Genocide and Mass Persuasion (3)
- Modern Jewish and Israel Studies/Sociology 153. The Holocaust: Background, Tragedy, and Aftermath (3)

History Area (9 units)

San Diego State University

- History 440. The Holocaust and Western Civilization (3)
- History 474. The Middle East Since 1500 (3)
- History 488. Modern Jewish History (3)
- History 574. Arab-Israeli Relations, Past and Present (3)

San Francisco State University

- Jewish Studies/History 317. The Holocaust and Genocide (3)
- Jewish Studies 320/History 635. The Jewish Historical Experience (3)
- Jewish Studies 633. Modern Jewish History (3)

CSU, Chico

- Modern Jewish and Israel Studies/History 266. The Arab-Israeli Conflict (3)
- Modern Jewish and Israel Studies/Political Science 218. Government and Politics of Israel (3)
- Political Science 246A. International Relations: Middle East (3)

Religion and Thought Area (9 units)

San Diego State University

- Hebrew 471. Kabbalah as a Symbolic System (3)
- Religious Studies 301. Hebrew Bible (3)
- Religious Studies 320. Judaism (3)
- Religious Studies 373. Women and the Bible (3)

San Francisco State University

- Jewish Studies 310. Jewish Thought and Culture (3)
- Jewish Studies 410/Philosophy 514. Spirituality and Jewish Tradition (3)
- Jewish Studies 550. Good and Evil: Jewish Ethics and Contemporary Social Problems (3)

CSU, Chico

- Modern Jewish and Israel Studies/Philosophy 135. Philosophy of Judaism (3)
- Modern Jewish and Israel Studies/Religious Studies 122. Hebrew Bible (Old Testament) (3)
- Modern Jewish and Israel Studies/Religious Studies 128. Judaism in America (3)

Electives (6 units)

Students may take these units on any campus. A maximum of six units outside of Jewish Studies may be counted toward the major, and a major adviser must approve these units. Students may not double count courses taken for the required and core areas for elective use and vice versa. Internet/distance education based courses are available to students for courses at San Francisco State University and CSU, Chico.

San Diego State University

- Jewish Studies 495. Jewish Studies Internship (3) Cr/NC
- Jewish Studies 496. Topics in Jewish Studies (1-3) (May be repeated with new content)
- Hebrew 330. Hebrew Discourse and Literature (3)
- Hebrew 496. Topics in Hebraic Studies (1-4) (May be repeated with new content) (Maximum credit eight units)
- Hebrew 499. Special Study (1-3) (Maximum credit six units)

San Francisco State University

- Jewish Studies/Journalism 311. Facing Each Other: Blacks and Jews in the Popular Media (3)
- Jewish Studies/Philosophy 412. Derrida and Jewish Tradition (3)
- Jewish Studies/Philosophy 415. The Hebrew Bible (3)
- Jewish Studies 416. Special Topics in Jewish Studies (3)
- Jewish Studies 445. Jews, Diaspora, and Identity (3)
- Jewish Studies/English 451. American Jewish Literature (3)
- Jewish Studies/Humanities/Philosophy 501. Judaism, Christianity, and Islam (3)
- Jewish Studies/Creative Writing 509. Jewish Writers in the American Poetry Archives (3)
- Jewish Studies 516/World and Comparative Literature 416/Classics 416/English 532/Philosophy 551. Bible and Ethics: The Moral of the Story (3)
- Jewish Studies/English/Women's Studies 546. Twentieth Century American Jewish Women Writers (3)
- Jewish Studies 600. Internship (3)
- Cinema 406. Jewish Identity in Film (3)
- World and Comparative Literature 445. Jewish Literature in Translation (3)

CSU, Chico

- Modern Jewish and Israel Studies/Communication Studies/Sociology 256. Teaching and Communicating the Holocaust and Genocide (3)
- Modern Jewish and Israel Studies 289. Internship (1-3) (Must be taken for 3 units)
- Modern Jewish and Israel Studies 298C. Special Topics in Modern Jewish and Israel Studies (1-3)

Jewish Studies Minor

Dr. Lawrence Baron, Department of History, is adviser for this minor. The Jewish studies minor provides a balanced interdisciplinary study of Jewish contributions to world culture and history. It serves the needs of students who plan to (1) specialize in disciplines in which an understanding of Jewish contributions is essential, or (2) follow careers in teaching, community service, foreign service, or the ministry. Students seeking a minor in Jewish studies may want to consider combining it with a major in Social Science with an emphasis on Africa and the Middle East. Many courses relevant to this major are available in anthropology, economics, geography, history, political science, and sociology.

The minor consists of a minimum of 19-20 units to include seven to eight units selected from Jewish Studies 130 and Hebrew 101, 102, 200, or 201; and 12 upper division units selected from Jewish Studies 495, 496; Comparative Literature 405; Hebrew 471, 496; History 436, 440, 488, 574; Religious Studies 301, 320; and other relevant courses may be counted as part of the 12 upper division units taken with the approval of the adviser for Jewish Studies.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (JS)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

JS 100. New Perspectives in Jewish Studies (1) Cr/NC I, II

New interpretations of Jewish history, culture, and social issues. Presentations from perspective of various disciplines. Contemporary issues.

JS 130. The Jewish Heritage (3)

Hebraic and Jewish influences on the arts, literature, philosophy, and religion of Western civilization. (Formerly numbered Humanities 130.)

JS 296. Topics in Jewish Studies (1-3)

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

UPPER DIVISION COURSES
(Intended for Undergraduates)

JS 495. Jewish Studies Internship (3) Cr/NC

Six hours per week at agency and one hour every other week with SDSU supervising faculty member.

Prerequisite: Upper division status and consent of supervising instructor.

Internship with local Jewish service agencies and non-profit organizations. Work to be done under direction of activity supervisor and SDSU instructor. Written project report and internship conferences required every other week with SDSU faculty adviser. Maximum credit six units.

JS 496. Topics in Jewish Studies (1-3)

Prerequisite: Upper division status.

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

Latin

Refer to "Classics" in this section of the catalog.



Latin American Studies

OFFICE: Storm Hall 146

TELEPHONE: 619-594-1104

<http://latinamericanstudies.sdsu.edu/>

In the College of Arts and Letters

Faculty

Latin American studies is administered by the Latin American Studies Committee. Faculty assigned to teach courses in Latin American studies are drawn from Anthropology, Art, Design and Art History, Chicana and Chicano Studies, Communication, Comparative Literature, Economics, Geography, History, Political Science, Public Administration and Urban Studies, Sociology, Spanish and Portuguese Languages and Literatures, Women's Studies; and the College of Business Administration.

Chair and Undergraduate Adviser: Gerber

Committee: Amuedo-Dorantes (Economics), Angelelli (Spanish), Ball (Anthropology), Bosco (Geography), Carrilio (Social Work), Carruthers (Political Science), Colston (History), Castleman (History), Del Castillo (Chicana and Chicano Studies), DeVos (History), Esbenshade (Sociology), Franco (Public Administration and Urban Studies), Ganster (Institute for Regional Studies of the Californias), Gerber (Economics), Godoy (Spanish), Graubart (Political Science), Griswold del Castillo (Chicana and Chicano Studies), Herzog (Public Administration and Urban Studies), Hicks (Chicana and Chicano Studies), Ibarra (Chicana and Chicano Studies), Iglesias Prieto (Chicana and Chicano Studies), Lara (Women's Studies), Loveman (Political Science), Lyman-Hager (Language Acquisition Resource Center), Maher (Political Science), Martin-Flores (Spanish), Mattingly (Women's Studies), Moyna (Spanish), Murillo (History), Múzquiz-Guerreiro (Spanish), Nericcio (English and Comparative Literature), Ojeda (Sociology/Chicana and Chicano Studies), Ortiz (Chicana and Chicano Studies), Passananti (History), Pérez (Anthropology), Robinson (Spanish), Rodriguez (Chicana and Chicano Studies), Rosenberg (Spanish), Strejilevich (Spanish), Stromberg (Language Acquisition Resource Center), Talavera (Public Health), Weeks (Geography), Wilson (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, histories, societies, economies, and governments of Latin America, offering basic education and training for business or professional careers that require specialized knowledge of this exciting and diverse area of the world.

A major in Latin American studies provides a multitude of career opportunities. Employment possibilities exist not only in Latin America, but throughout the world. Graduates can apply their specialization to service in international organizations and government positions at the federal or state level. Numerous employment situations can be found in the private sector. Private agencies and corporations have significant interests in Latin America and are looking for area specialists. Those students who wish to continue in their studies will find opportunities in teaching at all levels. A major in Latin American studies opens many avenues in the choice of a career.

High school students preparing to enter this program should include in the high school course of study not less than three years of study in one foreign language, preferably Spanish or Portuguese.

Proficiency in either of these languages is indispensable to a successful career in this area of study.

Advising

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

Latin American Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 03081)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Portuguese 101, 201, and 301 or Spanish 101, 102, 103, 202, 211, 212 (13-22 units); 12 units selected from Anthropology 102, Economics 101 and 102, Geography 102, History 115, 116, Latin American Studies 101, Political Science 101 and 103.

Language Requirement. The language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

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, 531, 560, 580; Anthropology 442*, 508*, 520*, 582*, 583*; Art 561*, 562*; Chicana and Chicano Studies 306, 310, 335, 340, 350A, 350B, 355, 375, 376, 380, 400, 498; Communication 371*, 591*; Community Health Education 362; Comparative Literature 445, 561*, 562*, 563*, 577*, 596*; Economics 336, 360, 365, 464, 561*, 565, 592*; Geography 323, 324, 353, 354*, 381, 507, 509, 545*, 554*; History 415, 416, 550, 551, 552, 553, 558; International Security and Conflict Resolution 300, 301, 310, 496*; Political Science 335, 361, 481, 482, 496*, 531, 555, 560, 564, 566, 567*, 568, 577; Portuguese 443*, 499*, 534*, 535*; Public Administration and Urban Studies 420*, 485*, 580*; Sociology 350, 450*, 457*, 522*, 555*; Spanish 307*, 341*, 342*, 350*, 391*, 406A*-406B*, 448*, 491*, 492*, 493*, 495*, 497*, 502*, 515*, 520*, 549*, 556*, 557*; Television, Film, and New Media 363*, 562*; Women's Studies 310, 512*, 515*, 530*, 536*, 565*, 580*, 596*.

Courses numbered 496, 499, and 596 of relevant content in the above departments may be used for the Latin American studies major.

* 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.

The major in Latin American studies is designed to provide (1) a foundation of understanding of the history, culture and governments of the countries of Latin America and the multiple interrelationships among those countries; and (2) a basic education and training for a business or professional career involving understanding of Latin America.

A minor is not required with this major.

Preparation for the Major. The lower division preparation for the major can be fulfilled by taking the following courses at a community college: elementary Spanish; intermediate Spanish or bilingual Spanish; intermediate conversational Spanish or bilingual oral Spanish; advanced conversational Spanish; and 12 units selected from cultural anthropology, cultural geography, history of the Americas, introduction to political science, comparative politics, and civilization of Spanish America and Brazil.

A minimum grade point average of 2.0 is required for all work attempted.

Language Requirement. The language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units selected from the courses listed below with not less than 12 units in one field and nine in two other fields. At least 33 units must be in courses having Latin American content: Anthropology 442; Art 496 (when relevant); Chicana and Chicano Studies 335, 350A, 376; Economics 365, 464, 496 (when relevant); Geography 323, 324, 496 (when relevant); History 415, 416, 496 (when relevant), 550, 551, 552, 558; Political Science 566, 567, 568; Sociology 350, 450; Spanish 406A-406B, 515; Women's Studies 310 (when relevant).

Latin American Studies Minor*

The minor in Latin American studies consists of a minimum of 15 units of Latin American content courses. At least 12 of these units must consist of upper division courses. In addition, students must complete Spanish 103 or Portuguese 101 or the equivalent. No more than six units may be drawn from any one department's or program's offerings. Units may be selected from among the following:

Latin American Studies 101, 495, 498, 560, 580; Anthropology 442, 582 (when relevant); Chicana and Chicano Studies 306, 310, 335, 340, 350A, 355, 375, 376, 380, 498; Comparative Literature 445; Economics 336, 360, 365, 464, 565, 592; Geography 323, 324; History 115, 116, 415, 416, 550, 551, 552, 558; Music 596; Political Science 361, 566, 567, 568, 577; Portuguese 535; Public Administration 580 (when relevant); Sociology 350 (when relevant), 450 (when relevant), 555; Spanish 341*, 342*, 406A-406B, 515, 520; Television, Film, and New Media 363 (when relevant), 562; Women's Studies 310 (when relevant), 580 (when relevant).

Courses numbered 496, 499, and 596 of relevant content in the above departments may be used for the Latin American studies minor.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University. In designing their Latin American studies programs for a minor, students may not include courses drawn from their major department.

* Additional prerequisites may be required for courses in the minor.

Courses (LATAM)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

LATAM 101. Latin American Heritage (3)

Introduction to Latin American cultures and peoples from an interdisciplinary perspective.

LATAM 110. Elementary Mixtec I (4)

Mixtec language and culture. Pronunciation, oral practice, reading, and listening comprehension and essentials of grammar in a communicative context and through task-based activities. Not open to students who have completed three years of high school Mixtec unless the third course was completed five or more years ago. Not open to students with credit in Latin American Studies 111.

LATAM 111. Elementary Mixtec II (4)

Prerequisite: Latin American Studies 110.

Continuation of Latin American Studies 110. Development of increased proficiency in Mixtec language and culture. Pronunciation, oral practice, listening comprehension, reading and writing, and grammar in a communicative context and through task-based activities. Not open to students who have completed four years of high school Mixtec unless the fourth course was completed five or more years ago.

UPPER DIVISION COURSES (Intended for Undergraduates)

LATAM 495. Latin American Studies Internship (3) Cr/NC I, II

Prerequisite: Six upper division units in Latin American content courses.

Opportunity for Latin American studies undergraduates to implement area specialist skills. Placement with a local organization with legal, commercial, or social service functions whose activities are primarily Latin American related.

LATAM 496. Experimental Topics (1-4)

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

LATAM 498. Seminar on Latin America (3)

Exploration of the interdisciplinary approach to Latin America including evaluation of relevant resources and methods. Taught by a team of instructors representing two or more disciplines.

LATAM 499. Special Study (1-3)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

LATAM 560. Latin America After World War II (3)

Prerequisites: Latin American Studies 101; History 115, 116; and Political Science 566.

Major socioeconomic and political changes in Latin America since World War II and inter-American relations during the same period. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

LATAM 576. Frida Kahlo and Her Circle: Mexican Artists and the Challenge of Modernity (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.

LATAM 580. Special Topics (1-4)

Prerequisite: Six upper division units in Latin American content courses.

Interdisciplinary study of selected Latin American topics. Credit will vary depending on the scope and nature of the topic. Whenever appropriate, the course will be taught by a team of instructors representing two or more disciplines. May be repeated with different content. See *Class Schedule* for specific content. Maximum credit eight units.



Liberal Studies

In the Division of Undergraduate Studies

OFFICE: Liberal Studies Office (Administration 103)

TELEPHONE: 619-594-0597

<http://dus.sdsu.edu/liberalstudies>

Faculty

Coordinator: Roeder, P. (Division of Undergraduate Studies)

Allison (English), Bar-Lev (Linguistics), Bowers (Mathematics), Colston (History), Cummins-Lewis (English), Goldberg (Physics), Griswold (English), Larlham, M. (Theatre, Television, and Film), McDonald (Music and Dance), Meyer (Linguistics), Riggs (Geological Sciences)

Committee: Anderson, B. (Theatre, Television, and Film), Colston (History), Indermill (Liberal Studies Advising), McDonald (Music and Dance), Roeder, P. (Natural Science), Samraj (Linguistics)

Offered by the Division

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

The Major

The liberal studies major is designed solely for students who intend to teach at the elementary level. The major prepares individuals who are capable of thinking critically, analyzing evidence, and writing clearly and effectively. Graduates develop a rich understanding of the major subject areas—literature, history, mathematics, science, and the visual and performing arts—including how practitioners create and evaluate new knowledge. They learn to identify and understand the developmental stages of children and to observe, interview, and tutor children effectively in classroom settings.

The liberal studies major is the only major at SDSU designed to satisfy the Senate Bill 2042 requirements approved by the California Commission on Teacher Credentialing in September 2001. The content covered in the courses closely matches the content that teachers will ultimately teach in the schools as well as the content assessed by the California Subject Exam for Teachers-Multiple Subject (CSET-MS) exam.

Preparation for the major includes two courses designed specifically for future elementary teachers: Teaching as a Profession and Children's Mathematical Thinking. The upper division requirements include a number of special courses including children's literature, linguistics, mathematics, inquiry-based science, early world and United States/California history for teachers, child development, hands-on visual and performing arts courses.

Students complete a specialization, which consists of 9-12 units in a given discipline. In the 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.

For graduation, students must also complete a senior project, the liberal studies assessment portfolio. Students are introduced to the assessment portfolio during orientation. They begin a comparative study of the subject areas when they take Liberal Studies 300 during their junior year. They are introduced to the specific guidelines and begin writing the required 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. The professor's name must be written on each artifact that is submitted. As a requirement for the portfolio, seniors take the CSET subtest in the area of their specialization. The assessment portfolio serves as the summative assessment for the major. The portfolio 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 College of Education, Office of Advising and Recruitment, BA-259, 619-594-6320. **Due to the "No Child Left Behind" federal legislation, students entering a credential program in California after July 1, 2004, will be required to pass the California Subject Examination for Teachers-Multiple Subjects (CSET-MS) prior to student teaching. For the SDSU credential programs, students must complete the CSET prior to entering the program because student teaching begins in the first semester.**

Impacted Program

The liberal studies major is an impacted program. To be admitted to the liberal studies major, students must meet the following criteria:

- Complete all courses listed in Preparation for the Major sections for the liberal studies major;
- Complete with a C or higher: a certified Area A1 Oral Communication course; a certified Area A3 Intermediate Composition and Critical Thinking course; Exercise and Nutritional Sciences 241A and 241B; and Mathematics 210 and 211. These courses can not be taken for credit/no credit (CR/NC);
- Earn a passing score on the SDSU Mathematics Departmental Placement Examination (Part LS);
- Complete a minimum of 60 transferable semester units;
- Have a cumulative GPA of 2.50 or higher;
- To declare the liberal studies major, follow the procedures explained on the Web site.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Courses (LIB S)

Refer to *Courses and Curricula and University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES (Intended for Undergraduates)

LIB S 300. Introduction to Liberal Studies (3)

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.

LIB S 498. Assessment in Liberal Studies (0.5-1) Cr/NC

Prerequisites: Liberal Studies 300 and successful completion of two upper division semesters of the liberal studies major. Not open to pre-majors.

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 Major

With the B.A. Degree in Applied Arts and Sciences (Major Code: 49015)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

Completion of the liberal studies major fulfills General Education requirements.

A minor is not required for this major.

Cultural Perspective Requirement. Liberal studies majors are strongly encouraged to include at least one course that approaches its subject from an ethnic perspective. Consider the courses under LANG-1, 2, or 3 or HIST-2 or -3 that are indicated by a star (*).

Preparation for the Major. (56–56.5 units)

Language and Literature

LANG-1. Complete with a grade of C or higher: Three units selected from Africana Studies 140*, Chicana and Chicano Studies 111A*, Communication 103¹.

LANG-2. Three units selected from Africana Studies 120*; Chicana and Chicano Studies 111B*; Linguistics 100; Rhetoric and Writing Studies 100, 101².

LANG-3. Complete with a grade of C or higher: Three units selected from Africana Studies 200*, Chicana and Chicano Studies 200*, Linguistics 200, Philosophy 110, Rhetoric and Writing Studies 200³.

LANG-4. Three units selected from Comparative Literature 270A, 270B; English 220.

¹ Upper division transfer students fulfill this area with any certified oral communication (A1) transfer course.

² Upper division transfer students fulfill this area with any certified written communication (A2) transfer course.

³ Upper division transfer students fulfill this area with any certified critical thinking (A3) transfer course.

History and Social Science

HIST-1. Geography 106.

HIST-2. Three units selected from Africana Studies 170A*, Chicana and Chicano Studies 141A*, History 109.

HIST-3. Three units selected from Africana Studies 170B* (recommended), Chicana and Chicano Studies 141B* (recommended), History 110, Political Science 102.

HIST-4. History 100.

Mathematics

MATH-1. Complete with a grade of C or higher: Mathematics 210.

MATH-2. Mathematics Education 212 (1-1.5 units). (Taken concurrently with Mathematics 210.)

MATH-3. Complete with a grade of C or higher: Mathematics 211.

Science

SCI-1. Three units (or four units including laboratory) selected from Geological Sciences 104 and 101 (laboratory).

SCI-2. Three units (or four units including laboratory) selected from Biology 203 (4 units; includes laboratory, recommended); Biology 100 and 100L (laboratory).

SCI-3. Laboratory from either category SCI-1 or SCI-2.

Visual and Performing Arts

VPA-1. Three units selected from Art 157 or Theatre 120.

VPA-2. Three units selected from Dance 102 or Music 102. Students who pass the Music 102 Challenge Examination may select Music 343 with approval of the liberal studies adviser.

Development, Health, and Physical Education

DHP-1. Complete with a grade of C or higher: Exercise and Nutritional Sciences 241A (1 unit) and 241B (1 unit).

DHP-2. Health: Community Health Education 101 (3 units) or Health and Human Services 280 (1 unit).

DHP-3. Three to six units selected from: General Studies 130 (3 units); Psychology 101 and Psychology 230 (six units)¹.

¹ Upper division transfer students may substitute a transfer course designated as CAN FCS 14 or transfer course equivalent to SDSU course Child and Family Development 270 in lieu of General Studies 130.

Education

ED-1. Education 200.

General Education Humanities

HUM-1

1) If the equivalent of the second college-level semester or higher of one foreign language has not been satisfied by high school coursework¹, by examination, or by petition, select three or more units from Arabic 102, Chinese 102, French 100B, German 100B, Hebrew 102, Italian 100B, Japanese 112, Latin American Studies 111, Persian 102, Portuguese 201, Russian 100B, Spanish 102, Speech, Language, and Hearing Sciences 259.

2) If the equivalent of the second semester of one foreign language has been satisfied by one of the methods described above, select three or more units from Philosophy 101, Religious Studies 101, 103, a beginning level foreign language course in a *different* language (than the one above), or a more advanced level foreign language course in the *same* language (as the one above)².

¹ Passed third-year level of a high school foreign language.

² See "Graduation Requirements: V. Language Requirement" in the General Catalog. Discuss with an adviser.

Physical Science Elective: (3 units)

SCI-4. Three units selected from Chemistry 308 (recommended) or Natural Science 100.

Graduation Writing Assessment Requirement. English 306W with a grade of C (2.0) or higher. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Upper Division Major. (39.5 upper division units)

Language and Literature

LANG-5. Linguistics 420.

LANG-6. Linguistics 452.

LANG-7. English 306W. (Passing with a C or higher satisfies the graduation writing assessment requirement.)

LANG-8. English 306A. (English 306A and 306W must be taken concurrently.)

History and Social Science

HIST-5. History 411.

HIST-6. History 413.

Mathematics

MATH-4. Mathematics 311 (2 units).
MATH-5. Mathematics 313.

Science

SCI-5. Natural Science 412.

Visual and Performing Arts

VPA-3 and VPA-4. Choose one of the following options:

Option I: If Art 157 and Music 102 lower division, choose Art 387 or Music 343¹, plus three additional units selected from Art 387, Music 343¹, Theatre 310, or Theatre 315.

Option II: If Art 157 and Dance 102, choose Art 387 or Dance 302 plus three additional units selected from Art 387, Dance 302, Theatre 310, or Theatre 315.

Option III: If Theatre 120 and Music 102 lower division, choose Art 387 plus three additional units selected from Music 343¹, Theatre 310, or Theatre 315.

Option IV: If Theatre 120 and Dance 102 lower division, choose Art 387 plus three additional units selected from Dance 302, Theatre 310, or Theatre 315.

¹ If Music 343 was used to satisfy VPA-2, it may not double count for VPA-3 or VPA-4.

Development, Health, and Physical Education

DHP-4. 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 (3 units).

LS-2. Liberal Studies 498 (0.5 units) and satisfactory completion of the Liberal Studies Assessment Portfolio. **Passing the Liberal Studies Assessment Portfolio is a graduation requirement for the major.**

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 LANG-8 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 Spanish-speaking countries.) Native speakers are not eligible for the Spanish specialization.

U.S. Hispanics+ (Defined as students who scored high enough on the Spanish Diagnostic Placement Examination to be placed in Spanish 282.)

Prerequisite: Spanish 282. (Will be waived if score on exam is high enough to be placed in Spanish 381.)

Foundations and Inquiry: Spanish 350 and 381.

Culture or Linguistics: Three units selected from Spanish 340, 341, 342, 448.

Literature: Three units selected from Spanish 405A, 405B, 406A, 406B.

English Speakers+ (Defined as native English speakers and other students who cannot pass the Spanish Diagnostic Placement Examination.)

Prerequisites: Spanish 202, 212.

Foundations and Inquiry: Spanish 301, 302, and 350.

Literature: Three units selected from Spanish 405A, 405B, 406A, 406B.

+ Contact the Department of Policy Studies in Language and Cross-Cultural Education about the Spanish Language Proficiency and Cultural Awareness Examination, a prerequisite for the bilingual credential program.

4. SOCIAL SCIENCE

Prerequisites: 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: History 445.

Depth: Three units selected from Geography 321 or Political Science 320 (not allowed after Political Science 102).

5. ETHNIC STUDIES

(12 upper division units required)

Prerequisites: Geography 106, HIST-2 course, HIST-3 course, History 100.

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.

+ Mathematics 150 is recommended as an alternative.

7. SCIENCE

(One additional upper division unit required.)

Prerequisites: Biology 203 or Biology 100 and 100L; Geological Sciences 104.

Foundations and Inquiry: Natural Science 412 (SCI-5 in major) (4 units)

Breadth and Current Issues: Select three units from Biology 315, 319, 324, 327.

Depth and Application: Three units selected from Astronomy 310; Chemistry 300; Geological Sciences 301, 303; Oceanography 320; Physics 301.

Inquiry and Research on an Environmental Problem: Geological Sciences 412 (4 units).

8. ART

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 or VPA-2 if passed challenge examination)

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

(10 upper division units required.)

Prerequisites: General Studies 130, Psychology 230, or a transfer course equivalent to Child and Family Development 270.

Foundations and Inquiry: Exercise and Nutritional Sciences 241A and 241B (2 units) (DHP-1 in preparation for the major); Exercise and Nutritional Sciences 301+.

Breadth and Current Issues: Exercise and Nutritional Sciences 348+++.

Depth: Three units selected from Dance 102 (may not double count in Preparation for the Major) OR Exercise and Nutritional Sciences 335+ (2 units) plus one unit of Dance 100A, 100C, 100E, 100G, 100I OR Exercise and Nutritional Sciences 104A-104B, 108A-108B, 109A-109B, 110A-110B, 111A-111B, 118A-118B, 120A-120B, 125, 130, 137A, 141A-141B.

Application: Exercise and Nutritional Sciences 398+ (1 unit)

Pedagogy: Exercise and Nutritional Sciences 347A++ (2 units), 347B++ (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, Psychology 230, or a transfer course equivalent to Child and Family Development 270.

Foundations and Inquiry: Child and Family Development 371 or Speech, Language, and Hearing Sciences 322 (DHP-4 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.

+ Prerequisite: Child and Family Development 371.

Linguistics

In the College of Arts and Letters

OFFICE: Business Administration 327

TELEPHONE: 619-594-5268

FAX: 619-594-4877

<http://www-rohan.sdsu.edu/dept/linguist/index.html>

Faculty

Emeritus: Donahue, Elgin, Frey, Johns, Seright, Webb

Chair: Kaplan

Professors: Bar-Lev, Choi, Gawron, Higurashi, Kaplan, Robinson, Underhill

Associate Professors: Kitajima, Poole, Samraj, Zhang

Assistant Professors: Csomay, Malouf, Wu

Offered by the Department of Linguistics and Oriental Languages

Master of Arts degree in linguistics.

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

Minor in linguistics.

Certificate in applied linguistics and English as a second language (ESL), basic and advanced.

The Major

Linguistics is the scientific study of language. The structure of a wide variety of languages is looked at, not to learn these languages, but to learn about them in order to understand the universal properties of human language.

The linguistics program offers coursework in all areas of linguistic analysis: the core areas of phonology, syntax, semantics, and historical linguistics; and interdisciplinary areas such as applied linguistics, sociolinguistics, psycholinguistics, bilingualism, computational linguistics, and the linguistics of certain languages and language families.

Linguistics majors must complete a minor in another field approved by the adviser in linguistics. Recommended fields include anthropology, communication, ethnic studies, a foreign language, history, journalism, literature, philosophy, psychology, public administration and urban studies, sociology, and speech, language, and hearing sciences.

In addition to the major and minor programs, the Department of Linguistics and Oriental Languages offers a Certificate in Applied Linguistics and English as a Second Language (ESL). This certificate prepares students to teach English as a second language in adult and private schools and to teach English in foreign countries.

Employment opportunities for linguistics majors exist in the teaching of English as a second language to immigrant and refugee population groups in various locales throughout the southwestern United States. In addition, many students are interested in teaching English in Latin America, the Far East, or other areas outside the United States and continental Europe. Linguistics training can also be used as a valuable skill in conjunction with a California teaching credential in another field. Government work is another alternative, where such divisions as the state department and the foreign service hire trained linguists. Researchers are needed at institutes working in the fields of animal communication, computer science development, disorders of communication, or advanced research in linguistics theory. By combining a linguistics major with courses in accounting, business administration, or related fields, there are jobs available with multinational corporations, particularly those which emphasize trade among the Pacific rim nations. Linguists are also hired in such fields as computer science, advertising, communication media, public relations, and curriculum development.

With a master's or doctoral degree, linguistics majors may find teaching positions at community colleges or universities.

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.

Language Requirement. Competency equivalent to that which is normally attained through three college semesters of a foreign language with a B (3.0) average, or the equivalent. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Linguistics 305W or 396W or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

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.

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, 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. Students must obtain a "C" or better in each of the certificate courses. Under certain circumstances comparable courses taken at other institutions may count toward the certificate. Such courses must be evaluated and approved by the certificate adviser. In addition, there is a 15-hour tutoring requirement. In order to enroll, you must contact the certificate adviser in the Department of Linguistics and Oriental Languages. Courses in the certificate may be counted toward the major in linguistics or the major in liberal studies (including the linguistics specialization) but may not be counted toward the minor in linguistics.

Refer to the Bulletin of the Graduate Division for information on the advanced certificate.

Courses (LING)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

General

LING 94. Developmental Writing for International or Bilingual Students (3) Cr/NC/RP I, II

(Same course as Rhetoric and Writing 94.)

Intermediate written English with emphasis on problems of non-native speakers; discussion of sentence, paragraph, and essay writing skills. Open only to ESL students who have not satisfied the SDSU Writing Competency requirement. Students attaining a score of 8 or better on the final examination earn a grade of "Cr" and satisfy the SDSU writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of "RP." Students receiving an "RP" should re-enroll in Rhetoric and Writing Studies 94 or Linguistics 94.

LING 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.)

LING 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.

LING 241. Foreign Language Experiences (1-2)

Study of one to two languages chosen by individual students, with focus on spontaneous speaking abilities and methodologies. Specially recommended for learning-disabled students and for study of languages otherwise unavailable. May be repeated with new content for maximum credit three units. Not acceptable for General Education credit.

LING 242. Foreign Language Experiences (3)

Study of one to three languages chosen by individual students, with focus on spontaneous speaking abilities and methodologies. Specially recommended for learning-disabled students and for study of languages otherwise unavailable.

LING 250. Directed Language Study (3) I, II

Prerequisite: Consent of instructor.

Directed independent study of a foreign language not offered at San Diego State University with aim of acquiring a developing competency in the language. May include speaking, listening, reading, writing, and grammar. May be repeated with approval of undergraduate adviser. Maximum credit six units.

LING 253. Grammar and Usage for Writers (2)

(Same course as Rhetoric and Writing Studies 253.)

Prerequisite: Passage of EPT or transfer writing assessment.

Instruction in sentence structure with attention to integrating sentences into their logical and rhetorical contexts. Identifying and understanding source of sentence-level writing problems.

LING 296. Experimental Topics (1-4)

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

English Composition for International Students

LING 100. English Composition for International Students (3)

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements. (See Graduation Requirements section of catalog.) **Proof of completion of prerequisites required:** Copy of EPT or competency scores (including ISEPT) or verification of exemption; proof of Cr in Rhetoric and Writing Studies 92A or 92B or 97, or notification from the Department of Rhetoric and Writing Studies.

Introduction to college-level written English; attention to English language/grammar needs of non-native speakers of English; grammatical and rhetorical techniques for effective writing, based in part on study of models of current American writing. Not open to students with credit in Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Rhetoric and Writing Studies 100 or 101, or higher-numbered composition course.

LING 200. Advanced English for International Students (3)

Prerequisites: Satisfaction of the English Placement Test and Writing Competency requirements; and Linguistics 100. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Further practice in mastering conventions of standard academic writing, with emphasis on strategies for research in writing papers. Focus on language issues specific to non-native speakers of English. Not open to students with credit in Africana Studies 200, Chicana and Chicano Studies 200, English 200, General Studies 260D, or Rhetoric and Writing Studies 200.

LING 281. Academic Reading and Writing for Second Language Learners and International Students (3)

(Same course as Rhetoric and Writing Studies 281.)

Prerequisite: Open only to students who qualify for Rhetoric and Writing Studies 280 and whose first language is not English.

Academic prose, emphasizing purposes, structures, and styles of academic English writing. Designed to improve students' ability to plan, draft, revise, and edit essays, as well as to read and analyze complex academic texts. Additional emphasis on grammatical features of English relevant to the second language population.

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

LING 305W. Advanced Composition for International Students (3)

Prerequisite: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Advanced expository writing, with practice in the various associated skills (organization, research, presentation, rhetoric). The goal is to enable non-native English speakers to function completely with written English on advanced university levels. This course may not be used toward the major or minor in linguistics.

LING 342. Exercises in Foreign Language Learning (3)

Prerequisites: Two semesters in any foreign language.

Exercises in foreign language learning with a variety of language structures, as a way of exploring nature of foreign language learning.

LING 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.

LING 396W. Writing Proficiency (1)

Prerequisite: Consent of instructor. Limited to linguistics majors. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Upper division writing course taken in conjunction with any 500-numbered linguistics course. Emphasizes composition skills in research methods, essay organization, paragraphing, sentence structure, and diction, all related to the particular 500-level linguistics course chosen.

LING 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.

LING 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.

LING 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.

LING 452. Language Acquisition (3)

Prerequisite: Linguistics 420 or 520.

Principles of child language development. Sounds and grammar in speech of young children. Acquisition of reading and vocabulary. Relationship between cognitive development and language. Development of language in bilinguals. Second language acquisition.

LING 453. Language Issues in the Schools (3)

Prerequisite: Linguistics 420.

Linguistic minorities and dialect variation in interethnic communication. Language development from a socio-interactionist perspective. Development of discourse and literacy, and their underlying cognitive and linguistic foundations.

LING 457. Community-Based Language Fieldwork (1)

Two hours of activity.

Prerequisite: Concurrent registration in upper division course requiring term paper on language behavior (e.g. Linguistics 452).

Fieldwork in language use in community setting. Students observe, keep field notes, analyze language behavior (e.g. speaking, reading, writing, listening).

LING 496. Experimental Topics in Linguistics (1-4)

Specialized study of a selected topic in linguistics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

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

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

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

LING 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.

LING 521. Phonology (3)

Prerequisite: Linguistics 420 or 520.

Introduction to the theoretical principles of transformational-generative phonology.

LING 522. Syntax (3)

Prerequisite: Linguistics 420 or 520.

Introduction to the theoretical principles of transformational-generative syntax.

LING 524. American Dialectology (3)

Prerequisite: Upper division standing.

Development of American English. Regional, social, and ethnic differences in pronunciation, grammar, and vocabulary. Differences in men's and women's language. Black English.

LING 525. Semantics and Pragmatics (3)

Prerequisite: Linguistics 420 or 520.

Advanced semantic theory; systematic analysis of the interaction of sequences of language with real world context in which they are used.

LING 530. English Grammar (3)

Prerequisite: Six upper division units in linguistics.

English morphology, syntax, and discourse structure, including simple and complex sentence structure; lexical categories and sub-categories; discourse functions of selected constructions. Problems and solutions in teaching English grammar.

LING 550. Theory and Practice of English as a Second Language (3)

Prerequisite: Linguistics 420 or 520.

The nature of language learning; evaluation of techniques and materials for the teaching of English as a second language.

LING 551. Sociolinguistics (3)

Prerequisite: A course in introductory linguistics.

Investigation of the correlation of social structure and linguistic behavior.

LING 552. Psycholinguistics (3)

Prerequisite: Linguistics 420 or 520.

Psychological and mental processes related to comprehension, production, perception, and acquisition of language in adults and children.

LING 553. Bilingualism (3)

Prerequisite: Linguistics 420 or 520 or Speech, Language, and Hearing Sciences 300.

Bilingual societies; language choice by bilinguals; bilingual language acquisition; effects of bilingualism on language structure and use.

LING 554. Child Language Acquisition (3)

Prerequisite: Linguistics 420 or 520.

Theories and research methods in child language acquisition; quantitative and qualitative analyses of data at various levels of grammar (phonology, morphology, lexicon, syntax, and discourse) using language and acquisition corpora.

LING 555. Practical Issues in Teaching English as a Second Language (3)

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.

LING 570. Mathematical Linguistics (3)

Prerequisites: Two linguistics courses.

Mathematical tools for linguistics: set theory; basic algebraic structures such as groups, lattices, and Boolean algebras; formal language theory; propositional and 1st-order logic. Some emphasis on proofs. Applications to linguistics.

LING 571. Computational Corpus Linguistics (3)

Prerequisites: Two linguistics courses.

Practical introduction to computation with text corpora and introduction to Perl. Tokenizing, part-of-speech tagging, and lemmatizing (stemming) large corpora. Writing of Perl programs required.

LING 581. Computational Linguistics (3)

(Same course as Computer Science 581.)

Prerequisites: Linguistics 570 or Mathematics 245; Linguistics 571 or Computer Science 320.

Basic concepts in computational linguistics including regular expressions, finite-state automata, finite-state transducers, weighted finite-state automata, and n-gram language models. Applications to phonology, orthography, morphology, syntax. Probabilistic models. Statistical techniques for speech recognition.

LING 582. Computational Syntax and Semantics (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.

LING 596. Selected Topics in Linguistics (1-3)

Prerequisite: Upper division standing.

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

GRADUATE COURSES

Refer to *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, Hampton, Mitton, Pierson, Robbins, Srbich, Wright

Chair: Singh

Professors: De Noble, Hergert, Jung, Marino, Naughton, Shore, Singh

Associate Professors: Chung-Herrera, Dunn, Ehrlich, Rhyne, Ryan, Sundaramurthy

Assistant Professors: Dean, Rodriguez, West (IVC)

Lecturers: Cornforth, Glazer

Offered by the Department

Master of Science degree in business administration.

Master of Business Administration.

Major in management with the B.S. degree in business administration.

Minor in management.

Minor in small business management (available at Imperial Valley Campus only).

The Major

Managers are responsible for achieving organizational objectives by coordinating money, materials, machines, and most important of all, the efforts of people. Managers set objectives, establish policies, plan, organize, direct, communicate, and make decisions. Since their principal concern is solving problems, managers are continually defining problems and seeking solutions.

To be an effective manager, an individual needs a broad knowledge of the practice of management, the workings of business and the economy, and the behavior of people. The knowledge obtained in the bachelor's degree should be sufficient to qualify the student for a broad range of beginning managerial positions in business organizations. The graduate in management is prepared not only for managerial functions, but for those functions set within the context of a particular type of operation.

Recent government and private manpower studies indicate that the demand for professional managers should continue to increase. While the types of employment secured by management graduates are varied, a recent study conducted by the management department showed that many graduates have gone into the following types of positions:

Production and operations managers supervise manufacturing and service operations, and are responsible for scheduling production and operations activities and controlling operational costs;

Sales managers, hire, train, and supervise sales personnel, evaluate the work of sales people, and develop incentive programs;

Financial managers supervise operations in banks, security exchanges, credit unions, and savings and loan associations;

Merchandising managers supervise operations in retail stores;

Organization and management analysts design and evaluate organizational structures and jobs.

International managers supervise foreign-based manufacturing and/or marketing operations for American companies; and

Corporate planners develop strategic plans for corporations.

Business Honors Program

The Business Honors Program offers excellent upper division business students the opportunity to explore issues in our local, regional, and global business environments focusing on the social and ethical responsibility that business has to the community and society. Honors students will enroll in a one unit business honors seminar each semester. During their enrollment they will participate in activities to promote their academic and personal growth, documenting their work in a written portfolio.

Generally, students should apply to this program at the time of application to upper division business. Applicants must submit an essay with their application. Applicants must have a 3.6 cumulative GPA or good standing in the University Honors Program. Students not meeting these requirements may petition for admission to the program. Successful completion of the Business Honors Program will be recognized at graduation. Contact Dr. Carol Venable, School of Accountancy, for more information about this program.

Statement on Computers

Before enrolling in upper division courses in the College of Business Administration, students must be competent in the operation of personal computers, including word processing and spreadsheets. Business students are strongly encouraged to have their own computers capable of running word processing, spreadsheet, presentation, e-mail, and Internet applications such as those found in packages sold by major software publishers. Availability of on-campus computing resources can be limited due to increasing demand across the university.

Retention Policy

The College of Business Administration expects that upper division students will make reasonable academic progress towards the degree. Students earning less than a 2.0 average in their classes for two or more semesters may be removed from the upper division major and required to declare a non-business major.

Transfer Credit

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

Upper Division: It is the policy of the San Diego State University College of Business Administration to accept *upper division transfer credits* where (a) the course content, requirements, and level are equivalent to San Diego State University courses and (b) where the course was taught in an AACSB International—The Association to Advance Collegiate Schools of Business accredited program. Exceptions require thorough documentation evidencing the above standards.

Impacted Program

The management major is impacted. Before enrolling in any upper division courses in business administration, students must advance to an upper division business major and obtain a business major code. To be admitted to an upper division business major (accounting, finance, financial services, real estate, information systems, management, or marketing), students must meet the following criteria:

- Complete with a grade of C or higher: Accountancy 220 and 230; Finance 240; Information and Decision Systems 180 and 290 (290 is not required for the accounting major); Economics 101 and 102; Mathematics 120 (or other approved calculus course); and either Statistics 119 or Economics 201. These courses cannot be taken for credit/no credit (Cr/NC);
- Complete a minimum of 60 transferable semester units;
- Have a cumulative GPA of 2.9;

Students who meet all requirements except the GPA may request to be placed on the waiting list. While all spaces are usually filled by eligible students, if there is room in the program after all the fully-qualified students have been accommodated, students will be admitted from the waiting list in GPA order. Contact the Business Advising Center (BA-448), 619-594-5828, for more information.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

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 220, 230; 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 Cr/NC; the minimum grade in each class is C. **Additional progress requirements must be met before a student is admitted to an upper division major.**

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

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 371; Geography 353; History 480; Natural Science 333; Philosophy 329, 333; Political Science 346; Psychology 319, 340; Social Work 350; Sociology 355, 401, 410, 531, 532; Women's Studies 320, 385. A "C" (2.0) average is required in the courses stipulated here for the major.

A minimum of 60 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration, economics, and statistics. 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 230; Economics 101, 102; Management 350, 352, 356, and 451 or 454.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University. Students with a major in the College of Business Administration, Hospitality and Tourism Management, or in International Business may not complete a minor in the College of Business Administration.

Students must officially declare the minor before taking any upper division business courses. **Students must meet the prerequisites for the minor in effect at the time that they declare the minor.** The current prerequisites for admission to the management minor include completion of the following courses with a grade of C or better: Economics 101, 102, and a three unit course in statistics (Statistics 119 is recommended); completion of the General Education requirements in Communication and Critical Thinking; completion of an additional nine units in the department of the student's major, including at least six units of upper division courses. Students must also meet the GPA requirement in effect at the time that they declare the minor. Contact the Business Advising Center (BA-448) for admissions criteria and procedures.

Small Business Management Minor (Imperial Valley Campus Only)

The minor in small business management consists of a minimum of 24 units to include Economics 101, 102; Accountancy 220, 230; Management 350, 450; Marketing 370; and three units selected from Finance 323, Management 352.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Project AMIGOS Dual Degree

Project AMIGOS (American Management Initiative for Global Operating Skills) is a transnational dual degree program between San Diego State University (SDSU) and Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM). Students may enter the program at either of the two schools and must spend a minimum of one-and-one-half years of study each in the United States and in Mexico.

Participants in Project AMIGOS are enrolled in the management major in the College of Business Administration at San Diego State University.

In addition to completing 49 units of General Education requirements at San Diego State University, students in AMIGOS must complete 97 units in management courses.

Approximately a quarter of all of these requirements are completed in Spanish while attending school in Mexico. Successful participants earn both the Bachelor of Science degree in business administration from San Diego State University and the Licenciatura en Administración de Empresas from ITESM.

For more information about this program, contact Teresa Donahue at 619-594-7297.

Courses (MGT)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSE

MGT 202. Business Professions (1) Cr/NC I, II

Students explore career options, analyze and evaluate career decisions through self assessment and career research. Computer programs and resources in Career Services library used to identify potential career.

UPPER DIVISION COURSES (Intended for Undergraduates)

MGT 350. Management and Organizational Behavior (3) I, II

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration. **Proof of completion of prerequisite required:** Change of major form or other evidence of acceptable major code.

Human behavior at individual, interpersonal, and group levels including effect of organization structure on behavior. Emphasis on managerial roles, historical evolution of management, ethics, and behavior in multicultural contexts.

MGT 352. Human Resource Management (3) I, II

Prerequisite: Management 350. Recommended: Information and Decision Systems 301.

The employment relationship. Functions and techniques; role of government, unions, behavior, and environmental variables in human resource management.

MGT 356. Social and Ethical Issues in Business (3) I, II

Prerequisite: 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.

MGT 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.

MGT 401. Business Internship (3) Cr/NC I, II

Prerequisites: Management 350 and consent of faculty adviser.

Internship with business firms, nonprofit organizations, or government agencies. Work done under joint supervision of intern organization and course instructor.

MGT 405. International Business Strategy and Integration (3) I, II

Prerequisites: Management 350, Finance 323, Information and Decision Systems 301 or 302, Marketing 370. **Proof of completion of prerequisites required:** Copy of transcript.

Integration of business administration principles and concepts for strategy design, implementation, and control in domestic, international, and global markets. Establishment of top management policy emphasized through case studies, experiential exercises, and simulations.

MGT 450. Venture Management (3) I, II

Prerequisites: Management 350, Finance 323, Information and Decision Systems 301 or 302, Marketing 370. **Proof of completion of prerequisites required:** Copy of transcript.

Process of initiating, expanding, purchasing, and consolidating businesses. Concepts, theories, and techniques of managerial innovation and implementation.

MGT 451. Organization Design and Change (3) I, II

Prerequisite: Management 350.

Management of organization design and development. Internal and external organizational factors such as environment, size, technology, power, politics, strategy, human resources, job design, and organization culture.

MGT 454. Interpersonal Processes (3) I, II, S

Prerequisite: Management 350.

Conceptual study and experiential training in interpersonal skills of management; acquisition of personal, managerial, and entrepreneurial behavioral competencies.

MGT 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.

MGT 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.

MGT 496. Selected Topics in Management (1-4)

Prerequisite: Consent of department chair.

Selected areas of concern in management; see *Class Schedule* for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

MGT 498. Investigation and Report (1-3) I, II

Prerequisites: Senior standing and consent of instructor.

A comprehensive and original study of a problem connected with management under the direction of one or more members of the management staff. May be repeated with new content. Maximum credit six units.

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

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSE (Also Acceptable for Advanced Degrees)

MGT 596. Advanced Topics in Management (3)

Prerequisite: Six upper division units in management.

Advanced special topics in management. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.

Marketing

In the College of Business Administration

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 Professors: Baker, Russell

Assistant Professors: Aistrich, Appleton-Knapp, Honea

Lecturers: Brooks, Olson

Offered by the Department

Master of Science degree in business administration.

Master of Business Administration.

Major in marketing with the B.S. degree in business administration.

Minor in marketing.

The Major

Marketing is defined as “the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational objectives.” (American Marketing Association, 1986.)

The marketing major studies how products and services are developed, priced, promoted, distributed and sold. The process requires an understanding of buyer and seller behavior within the context of the overall market environment. Added emphasis is given to the important area of global markets with their own particular nuances.

Marketing is an essential part of every business. Not-for-profit organizations also have to market their products/services, and the marketing discipline addresses the special needs of such organizations. The employment outlook for graduates in marketing continues to be very favorable in all areas, especially in sales for those who hold the bachelor's degree. Some of the more common career opportunities for marketing graduates include:

- Sales, which is the most common source of employment for recent marketing graduates. Sales people supervise retailing operations in large department stores, serve as sales representatives for manufacturers and wholesalers, and sell a variety of services and equipment;
- Market research specialists collect, analyze, and interpret data to determine potential sales of a product or a service. They organize and supervise surveys, study the results by using statistical tests, and prepare reports with recommendations for management;
- Product specialist/managers plan and coordinate the marketing functions specific to particular product(s)/brands;
- Physical distribution specialists are responsible for the warehousing of products, the packing of shipments, and the delivery of orders to retailers or consumers;
- Purchasing specialists, commonly known as buyers, acquire the materials and the services that are essential to the operation of a business or organization.

Students who choose the specialization in Integrated Marketing Communications prepare for careers as:

- Advertising and promotion specialists, such as copywriters, who assemble information on products and services, study the characteristics of potential consumers, and prepare written materials to attract attention and stimulate interest among customers;
- Advertising managers, who supervise the promotional activities of retailers, wholesalers, or manufacturers;
- Account executives, who represent advertising agencies in negotiating contracts with clients for advertising services, offer advice in problem areas, and serve as troubleshooters in disputes between clients and the agency;
- Media directors, who coordinate the purchasing of space in newspapers and magazines and arrange for commercials on radio and television;
- Production managers, who supervise the work of copywriters, artists, and other members of an advertising team.

Business Honors Program

The Business Honors Program offers excellent upper division business students the opportunity to explore issues in our local, regional, and global business environments focusing on the social and ethical responsibility that business has to the community and society. Honors students will enroll in a one unit business honors seminar each semester. During their enrollment they will participate in activities to promote their academic and personal growth, documenting their work in a written portfolio.

Generally, students should apply to this program at the time of application to upper division business. Applicants must submit an essay with their application. Applicants must have a 3.6 cumulative GPA or good standing in the University Honors Program. Students not meeting these requirements may petition for admission to the program. Successful completion of the Business Honors Program will be recognized at graduation. Contact Dr. Carol Venable, School of Accountancy, for more information about this program.

Statement on Computers

Before enrolling in upper division courses in the College of Business Administration, students must be competent in the operation of personal computers, including word processing and spreadsheets. Business students are strongly encouraged to have their own computers capable of running word processing, spreadsheet, presentation, e-mail, and Internet applications such as those found in packages sold by major software publishers. Availability of on-campus computing resources can be limited due to increasing demand across the university.

Retention Policy

The College of Business Administration expects that upper division students will make reasonable academic progress towards the degree. Students earning less than a 2.0 average in their classes for two or more semesters may be removed from the upper division major and required to declare a non-business major.

Transfer Credit

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

Upper Division: It is the policy of the San Diego State University College of Business Administration to accept *upper division transfer credits* where (a) the course content, requirements, and level are equivalent to San Diego State University courses and (b) where the course was taught in an AACSB International—The Association to Advance Collegiate Schools of Business accredited program. Exceptions require thorough documentation evidencing the above standards.

Impacted Programs

The majors in the Department of Marketing are impacted. Before enrolling in any upper division courses in business administration, students must advance to an upper division business major and obtain a business major code. To be admitted to an upper division business major (accounting, finance, financial services, real estate, information systems, management, or marketing), students must meet the following criteria:

- Complete with a grade of C or higher: Accountancy 220 and 230; Finance 240; Information and Decision Systems 180 and 290 (290 is not required for the accounting major); Economics 101 and 102; Mathematics 120 (or other approved calculus course); and either Statistics 119 or Economics 201. These courses cannot be taken for credit/no credit (Cr/NC);
- Complete a minimum of 60 transferable semester units;
- Have a cumulative GPA of 2.9;

Students who meet all requirements except the GPA may request to be placed on the waiting list. While all spaces are usually filled by eligible students, if there is room in the program after all the fully-qualified students have been accommodated, students will be admitted from the waiting list in GPA order. Contact the Business Advising Center (BA-448), 619-594-5828, for more information.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Marketing Major

**With the B.S. Degree in Business Administration
(Major Code: 05091)**

A minor is not required with this major.

Preparation for the Major. Accountancy 220, 230; 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 Cr/NC; the minimum grade in each class is C. **Additional progress requirements must be met before a student is admitted to an upper division major.**

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. Students may elect to major in general marketing or to complete the marketing major with a specialization in integrated marketing communications.

General Marketing

Forty-six upper division units consisting of Marketing 370, 371, 470, 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, 475, 476. A "C" (2.0) average is required in the courses stipulated here for the major. A minimum of 60 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration, economics, and statistics. 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-six to forty-seven upper division units consisting of Marketing 370, 371, 373, 470, 472; 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*, 565*[^]; Marketing 476. A "C" (2.0) average is required in the courses stipulated here for the major. A minimum of 60 units of coursework applicable to the bachelor's degree must be completed outside the areas of business administration, economics, and statistics. This specialization meets this requirement. 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.

[^] Integrated Marketing Communications students who have completed Marketing 470 may add this course on a space-available basis during the add period.

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 230; Economics 102; and 11 to 12 units selected from Information and Decision Systems 301, Marketing 371, 372, 373, 376, 377, 470, 472, 473, 474, 476.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University. Students with a major in the College of Business Administration, Hospitality and Tourism Management, or International Business may not complete a minor in the College of Business Administration.

Students must officially declare the minor before taking any upper division business courses. **Students must meet the prerequisites for the minor in effect at the time that they declare the minor.** The current prerequisites for admission to the marketing minor include completion of the following courses with a grade of C or better: Economics 101, 102, and a three unit course in statistics (Statistics 119 is recommended); completion of the General Education requirements in Communication and Critical Thinking; completion of an additional nine units in the department of the student's major, including at least six units of upper division courses. Students must also meet the GPA requirement in effect at the time that they declare the minor. Contact the Business Advising Center (BA-448) for admissions criteria and procedures.

Courses (MKTG)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES (Intended for Undergraduates)

MKTG 370. Marketing (3) I, II, S

Prerequisite: Approved upper division business major, business minor, or another major approved by the College of Business Administration. **Proof of completion of prerequisite required:** Change of major form or other evidence of acceptable major code. Marketing majors must complete this course with a minimum grade of C (2.0).

Function of marketing in the organization and in society. Topics include market analysis and consumer behavior, product planning, pricing, promotion, distribution, and international marketing.

MKTG 371. Consumer and Buyer Behavior (4) I, II

Prerequisite: Marketing 370 with a minimum grade of C (2.0). **Proof of completion of prerequisite required:** Copy of transcript.

Personal, social, and cultural factors that distinguish identifiable market segments and influence buyers' and consumers' responses to marketing programs.

MKTG 372. Retail Marketing Methods (4) I, II

Prerequisite: Marketing 370 with a minimum grade of C (2.0) **Proof of completion of prerequisite required:** Copy of transcript.

Retail store and direct retail marketing organization, site location, personnel, promotion, purchasing, merchandising, inventory, and control methods.

MKTG 373. Integrated Marketing Communications (4) I, II

Prerequisite: Marketing 370 with a minimum grade of C (2.0). **Proof of completion of prerequisite required:** Copy of transcript.

Communication and promotion theory; emphasis on integration of various marketing communications tools including advertising, personal selling, media strategy and tactics, public relations, and publicity strategy, methods, measurement, and ethics.

MKTG 376. Global Marketing Strategy (4) I, II

Prerequisite: Marketing 370 with a minimum grade of C (2.0). **Proof of completion of prerequisite required:** Copy of transcript.

International marketing and trade principles; comparative economic and sociocultural systems; entry, counter-trading, transfer pricing, and promotion.

MKTG 377. Selling Strategy and Practices (4)

Prerequisite: Marketing 370 with a minimum grade of C (2.0). **Proof of completion of prerequisite required:** Copy of transcript.

Selling strategy and practices as an integral part of the total marketing system, including territory management, consultative selling, negotiation, and system selling.

MKTG 470. Marketing Research (4) I, II

Prerequisites: Completion of lower division courses in the major or minor. A minimum grade of C (2.0) in Information and Decision Systems 301 and Marketing 370. **Proof of completion of prerequisites required:** Copy of transcript.

Methods of information generation and interpretation for marketing decisions; research design, data sources and collection, analysis and reporting techniques. Use of SPSS computer programs for analysis of marketing research survey and experimental data.

MKTG 472. Advanced Integrated Marketing Communications (4) I, II

Prerequisites: Marketing 373 with minimum grade of C; Marketing 371 and 470 with minimum grade of C or an average of 2.0 in both courses. **Proof of completion of prerequisites required:** Copy of transcript.

Management of marketing communications function with emphasis on integration and coordination of all activities. Planning, implementation, and coordination of marketing communications activities. Development, implementation, and program evaluation of an integrated marketing communications project.

MKTG 473. Sales Management (4)

Prerequisite: Marketing 370 with a minimum grade of C (2.0). **Proof of completion of prerequisite required:** Copy of transcript.

Sales force organization, recruitment, selection, training, compensation, evaluation, and control; sales analysis, costs, budgets, and quotas; coordination with personal selling.

MKTG 474. Business Marketing (4)

Prerequisite: Marketing 370 with a minimum grade of C (2.0). **Proof of completion of prerequisite required:** Copy of transcript.

Marketing practices and strategy designed for organizational customers; focuses on purchasing practices of organizational customers and development of marketing mixes for private, commercial, institutional, and governmental markets, both domestic and global.

MKTG 475. Global Marketing Applications (4)

Prerequisite: Marketing 376 with a minimum grade of C (2.0).

Applying global marketing concepts to conduct detailed market analysis through collecting demographic, cultural, political, legal, economic, financial data; developing international marketing plan focused on one world region for company with international entry, global marketing strategy issues. Region of focus varies.

MKTG 476. Marketing, Computers, and the Internet (4) I, II

Prerequisite: Marketing 370 with a minimum grade of C (2.0). **Proof of completion of prerequisite required:** Copy of transcript.

Applications of personal computers, information technology, and Internet in business and marketing. Topics include use of computerized reference sources, the world wide web, webpage design, marketing and business on the Internet, desktop publishing and computer databases.

MKTG 479. Strategic Marketing Management (4) I, II, S

Prerequisites: Marketing 371 and 470 with a minimum grade of C (2.0) or an average of 2.0 in both courses. Completion of lower division courses required in the major or minor. **Proof of completion of prerequisites required:** Copy of transcript.

Strategic planning, integration, management, and control of the marketing functions and mix; applying decision techniques for marketing problem solution.

MKTG 496. Selected Topics in Marketing (1-4) I, II

Prerequisite: Consent of department chair.

Selected areas of concern in marketing. See *Class Schedule* for specific content. May be repeated with new content with consent of department chair. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

MKTG 498. Investigation and Report (1-3) I, II

Prerequisites: Senior standing and consent of instructor.

A comprehensive and original study of a problem connected with marketing under the direction of one or more members of the marketing staff. May be repeated with new content. Maximum credit six units.

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

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

GRADUATE COURSES

Refer to *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, Eisemann, Elwin, Fountain, Garrison, Gindler, Hager, Harvey, Hintzman, Ho, Holmes, Lutz, Marcus, Marosz, McLeod, Nower, Pierce, Riggs, Ross, Saltz, Short, Smith, Sowder, J., Sowder, L., Springer, Thompson, Van de Wetering, Villone, Whitman

Chair: Lesley

Professors: Castillo, Dunster, Geveci, Greer, Grone, Hui, Lesley, Mahaffy, Salamon

Associate Professors: Bowers, Kirschvink, Lobato, Palacios, Rasmussen

Assistant Professors: Blomgren, Carretero, Nickerson, O'Sullivan, Smarandache

Lecturers: Brock, Cavanaugh, Rotar

Offered by the Department of Mathematics and Statistics

Master of Arts degree in mathematics.

Master of Science degree in applied mathematics.

Concentration in dynamical systems.

Concentration in mathematical theory of communication systems.

Master of Arts for teaching service with a concentration in mathematics.

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

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

Emphasis in applied mathematics.

Emphasis in computational science.

Emphasis in mathematical finance.

Emphasis in science.

Teaching major in mathematics for the single subject teaching credential.

Minor in mathematics.

Certificate in communications systems (refer to *Bulletin of the Graduate Division*).

Certificate in mathematics specialist (refer to *Bulletin of the Graduate Division*).

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.

Mathematics Major

**With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 17011)**

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

A minor is not required with this major.

Preparation for the Major. Mathematics 150, 151, 241, 245, 252, 254, Computer Science 107. (22 units)

Recommended: Physics 195, 195L, 196, 196L, 197, 197L.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units, selected with approval of the departmental adviser before starting upper division work, including Mathematics 337, 521A, 524, 534A, and one two-semester sequence selected from: Mathematics 521A-521B; Mathematics 337 and 531; 337 and 537; 337 and 538; 534A-534B; 541 and 542; 541 and 543; Statistics 550 and 570; Statistics 551A and 551B; and nine units of electives. 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.

Emphasis in Applied Mathematics

This emphasis is designed to train the student in those areas of mathematics which may be applied to formulate and solve problems in other disciplines. The program is designed to qualify the student for employment as an applied mathematician, but the graduate would also be well prepared for graduate study in pure or applied mathematics.

Preparation for the Major. Mathematics 150, 151, 241, 245, 252, 254, Computer Science 107, Statistics 250. (25 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

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. (31 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

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 230, Economics 101, 102. (34 units) The student must complete these courses before being allowed to register for the upper division finance courses.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 39 upper division units to include Mathematics 337, 524, 531, 544, 562, 580, 581, Statistics 550 or 551A, Statistics 551B or 570 or 575, 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. (25 units) Some lower division courses will probably be prerequisite to science courses applied to the major.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

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 preparing to be high school teachers as an undergraduate major for the B.A. degree in liberal arts and sciences.

Preparation for the Major. Mathematics 150, 151, 241, 245, 252, 254, Statistics 250. (22 units)

Recommended: Computer Science 107, Physics 195, 195L, 196, 196L, 197, 197L.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language as part of the preparation for the major. Refer to the section of the catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 24 upper division units in mathematics to include Mathematics 302, 303, 414, 521A, 534A, Statistics 550; an upper division course in geometry; and three units of electives in mathematics approved by the credential adviser. Student must complete outline for major and file a copy signed by adviser with the Office of Advising and Evaluations.

Mathematics Minor

The minor in mathematics consists of a minimum of 20-22 units in mathematics to include 12 upper division units, at least six of which have as prerequisite Mathematics 151; or Mathematics 252 and nine upper division units in mathematics, at least six of which have as prerequisite Mathematics 151. The courses selected will be subject to the approval of the minor adviser.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Single Subject Mathematics Certificate

The purpose of the Single Subject Mathematics Certificate program is to provide individuals 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 Mathematics 150, 151; and 241, 245, 252, 254, 302, 303, 414, 510 (or 511 or 512), 521A, 534A, Statistics 250, 550, and three units of upper division electives selected from mathematical or physical sciences.

Individuals must complete at least nine upper division units at San Diego State University and have a cumulative grade point average of 2.5 in the required courses to qualify for the certificate.

Mathematics Departmental Placement Examination

All students who expect to enroll in Computer Science 106, 107, 108, Mathematics 118, 120, 121, 141, 150, 210, 211, 312, Statistics 119, 250 must satisfy the Entry-Level Mathematics Examination requirement and pass the required part of the Mathematics Departmental Placement Examination. For Mathematics 150, certain prerequisite courses taken at San Diego State University may be used to satisfy the Mathematics Departmental Placement Examination requirement.

COMPUTER SCIENCE

(See this section of catalog under Computer Science)

STATISTICS

(See this section of catalog under Statistics)

Courses (MATH)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

NOTE: Proof of completion of Entry-Level Mathematics requirement required for Mathematics 118, 120, 121, 122, 141, 150, 210, 211: Copy of ELM score or verification of exemption.

MATH 118. Topics in Mathematics (3) 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.

MATH 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.

MATH 121. Calculus for the Life Sciences I (3) I, II (CAN MATH 30)

Two lectures and two hours of activity.

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA.

Basic concepts of differential calculus with life science applications. Not intended for physical science or engineering majors. Not open to students with credit in Mathematics 150.

MATH 122. Calculus for the Life Sciences II (3) I, II

Two lectures and two hours of activity.

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement; qualification on the Mathematics Departmental Placement Examination, Part IA; and Mathematics 121.

A continuation of Mathematics 121 with topics from integral calculus and an introduction to elementary differential equations. Not open to students with credit in Mathematics 150.

MATH 141. Precalculus (3) I, II

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA.

Real numbers, inequalities; polynomials; rational, trigonometric, exponential and logarithmic functions; conic sections. Not open to students with credit in Mathematics 150.

MATH 150. Calculus I (4) 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 Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Precalculus Proficiency Examination. **Proof of completion of prerequisites required.**

Algebraic and transcendental functions. Continuity and limits. The derivative and its applications. The integral and the fundamental theorem of calculus.

MATH 151. Calculus II (4) I, II, S (CAN MATH 20) (150 + 151: CAN MATH SEQ B)

Prerequisite: Mathematics 150 with minimum grade of C. **Proof of completion of prerequisite required.**

Techniques and applications of integration. Improper integrals. Differential equations. Infinite series. Conic sections. Curves in parametric form, polar coordinates.

MATH 210. Number Systems in Elementary Mathematics (3) I, II

This course or its equivalent is required for students working toward a multiple subject credential in elementary education.

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement.

Number sense, operation concepts, estimation, mental arithmetic, algorithms, problem solving, whole, rational, real numbers, ratio, and number theory.

MATH 211. Geometry in Elementary Mathematics (3) I, II

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement and Mathematics 210.

Two and three dimensional shapes and interrelationships, congruence, similarity and proportional reasoning, measurement of length, angle size, area, volume, metric system, and problem solving.

MATH 241. Mathematics Software Workshop (1)

Prerequisites: Computer Science 107 and Mathematics 151.

Introduction to mathematical software environment such as MATLAB, MAPLE, MATHEMATICA or the Geometers Sketchpad. May be repeated for credit with different software. See *Class Schedule* for specific content. Maximum credit two units.

MATH 245. Discrete Mathematics (3) I, II, S

Prerequisite: Mathematics 121 or 150.

Logic, methods of proof, set theory, number theory, equivalence and order relations, counting (combinations and permutations), solving recurrence relations.

MATH 252. Calculus III (4) 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.

MATH 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.

MATH 296. Experimental Topics (1-4)

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

MATH 299. Special Study (1-3)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

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

NOTE: Proof of completion of prerequisites required for all upper division courses: Copy of transcript.

MATH 302. Transition to Higher Mathematics (3) I, II

Prerequisite: Mathematics 150.

Selected topics in mathematics to emphasize proof writing and problem solving. Intended for those planning to teach secondary school mathematics.

MATH 303. History of Mathematics (3) I, II

Prerequisites: Mathematics 141 or students using course to satisfy General Education must complete the General Education requirement in Foundations IIA., Natural Sciences and Quantitative Reasoning.

Major currents in the development of mathematics from ancient Egypt and Babylon to late nineteenth century Europe.

MATH 311. Statistics and Probability in Elementary Mathematics (2)

Prerequisites: Mathematics 211 and satisfactory performance on Mathematics Departmental Placement Examination, Part LS.

Topics from statistics and probability. Enrollment limited to liberal studies majors. Not open to students with credit in Mathematics 312.

MATH 312. Topics from Elementary Mathematics I (3) I, II

Prerequisites: Mathematics 211 and satisfactory performance on Mathematics Departmental Placement Examination, Part LS.

Topics from statistics and probability. Enrollment limited to future teachers in grades K-8. Not open to students with credit in Mathematics 311.

MATH 313. Selected Topics in Elementary Mathematics (3) I, II

Prerequisite: Mathematics 311 or 312.

Capstone course for prospective K-8 teachers. Advanced topics in mathematics selected from algebra, number systems, transformation geometry, and problem solving. Enrollment limited to future teachers in grades K-8.

MATH 336. Introduction to Mathematical Modeling (3) II

Prerequisite: Mathematics 254.

Models from the physical, natural, and social sciences including population models and arms race models. Emphasis on classes of models such as equilibrium models and compartment models.

MATH 337. Elementary Differential Equations (3) I, II

Prerequisite: Mathematics 254 or 342A.

Integration of first-order differential equations, initial and boundary value problems for second-order equations, series solutions and transform methods, regular singularities.

MATH 342A. Methods of Applied Mathematics I (3) I

Prerequisite: Mathematics 252.

Vector analysis, divergence and Stokes' theorem and related integral theorems. Matrix analysis, eigenvalues and eigenvectors, diagonalization. Introduction to ordinary differential equations. Computer software packages for matrix applications, solving, and graphing differential equations. Not open to students with credit in Physics 340A.

MATH 342B. Methods of Applied Mathematics II (3) II

Prerequisite: Mathematics 342A.

Second order ordinary differential equations, power series methods, Bessel functions, Legendre polynomials. Linear partial differential equations, separation of variables, Fourier series, Sturm-Liouville theory, orthogonal expansions, Fourier Transforms. Use of computer software packages for symbolic algebra and solution of differential equations. Not open to students with credit in Physics 340B.

MATH 413. Mathematics for the Middle Grades (3)

Prerequisites: Senior standing and Mathematics 312.

Teacher-level look at mathematics taught in middle grades, to include proportional reasoning, rational and real numbers, probability, and algebra. Intended for those planning to teach mathematics in middle grades; cannot be used as part of major or minor in mathematical sciences with exception of major for single subject teaching credential. Students in the SSTC major must receive instructor permission.

MATH 414. Mathematics Curriculum and Instruction (3)

Prerequisites: Senior standing and 12 upper division units in mathematics.

Historical development of mathematics and mathematics curriculum. Principles and procedures of mathematics instruction in secondary schools. For secondary and postsecondary teachers and teacher candidates. Course cannot be used as part of the major or minor in mathematical sciences with exception of major for the single subject teaching credential.

MATH 496. Experimental Topics (1-4)

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

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

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

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

NOTE: Proof of completion of prerequisites required for all upper division courses: Copy of transcript.

MATH 509. Computers in Teaching Mathematics (3)

Two lectures and three hours of laboratory.

Prerequisite: Mathematics 252.

Solving mathematical tasks using an appropriate computer interface, and problem-based curricula. Intended for those interested in mathematics teaching.

MATH 510. Introduction to the Foundations of Geometry (3) I, II

Prerequisite: Mathematics 122 or 151.

The foundations of Euclidean and hyperbolic geometries. Highly recommended for all prospective teachers of high school geometry.

MATH 511. Projective Geometry (3)

Prerequisite: Mathematics 254.

Geometry emphasizing relationships between points, lines, and conics. Euclidean geometry and some non-Euclidean geometries as special cases of projective geometry.

MATH 512. Non-Euclidean Geometry (3)

Prerequisite: Mathematics 122 or 151.

History of attempts to prove the fifth postulate; emphasis on plane synthetic hyperbolic geometry; brief treatment of other types of non-Euclidean geometry.

MATH 521A. Abstract Algebra (3) I, II

Prerequisites: Mathematics 245 and 254.

Abstract algebra, including elementary number theory, groups, and rings.

MATH 521B. Abstract Algebra (3) II

Prerequisite: Mathematics 521A.

Continuation of Mathematics 521A. Rings, ideals, quotient rings, unique factorization, noncommutative rings, fields, quotient fields, and algebraic extensions.

MATH 522. Number Theory (3) I

Prerequisites: Mathematics 245 and 252.

Theory of numbers to include congruences, Diophantine equations, and a study of prime numbers; cryptography.

MATH 523. Mathematical Logic (3)

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.

MATH 524. Linear Algebra (3) I, II

Prerequisites: Mathematics 245 and 254; or 342A.

Vector spaces, linear transformations, orthogonality, eigenvalues and eigenvectors, normal forms for complex matrices, positive definite matrices and congruence.

MATH 525. Algebraic Coding Theory (3) I

Prerequisite: Mathematics 254.

Linear codes, perfect and related codes, cyclic linear codes, BCH codes, burst error-correcting codes.

MATH 528. Information Theory and Data Compression (3)

Prerequisites: Mathematics 245 and 254.

Fundamental of discrete probability and information theory: joint and conditional distributions, Bayes' theorem, entropy, channel capacity. Noiseless coding theorem and data compression algorithms: Huffman codes, arithmetic coding, Ziv-Lempel codes. Information theory in error correction coding and cryptography.

MATH 531. Partial Differential Equations (3) II

Prerequisites: Mathematics 252 and 337.

Boundary value problems for heat and wave equations: eigenfunction expansions, Sturm-Liouville theory and Fourier series. D'Alembert's solution to wave equation; characteristics. Laplace's equation, maximum principles, Bessel functions.

MATH 532. Functions of a Complex Variable (3) I

Prerequisite: Mathematics 252.

Analytic functions, Cauchy-Riemann equations, theorem of Cauchy, Laurent series, calculus of residues, and applications.

MATH 533. Vector Calculus (3)

Prerequisite: Mathematics 254 or 342A.

Scalar and vector fields; gradient, divergence, curl, line and surface integrals: Green's, Stokes' and divergence theorems. Green's identities. Applications to potential theory or fluid mechanics or electromagnetism.

MATH 534A. Advanced Calculus I (3) I, II, S

Prerequisites: Mathematics 245 and 254; or 342A.

Completeness of the real numbers and its consequences, sequences of real numbers, continuity, differentiability and integrability of functions of one real variable.

MATH 534B. Advanced Calculus II (3) II

Prerequisite: Mathematics 534A.

Series and sequences of functions and their applications, functions of several variables and their continuity, differentiability and integrability properties.

MATH 537. Ordinary Differential Equations (3)

Prerequisite: Mathematics 337.

Theory of ordinary differential equations: existence and uniqueness, dependence on initial conditions and parameters, linear systems, stability and asymptotic behavior, plane autonomous systems, series solutions at regular singular points.

MATH 538. Discrete Dynamical Systems and Chaos (3) II

Prerequisite: Mathematics 337.

One- and two-dimensional iterated maps, equilibria and their stability, sensitive dependence on initial conditions, Lyapunov exponents, horseshoe maps, period doubling, chaotic attractors, Poincaré maps, Lorenz systems, chaos in differential equations, stable manifolds and crises. Applications in biology, chemistry, physics, engineering, and other sciences. Bifurcation theory.

MATH 541. Introduction to Numerical Analysis and Computing (3) I, II, S

Prerequisites: Mathematics 254 or 342A; and Computer Science 106 or 107 or 205.

Solution of equations of one variable, direct methods in numerical linear algebra, least squares approximation, interpolation and uniform approximation, quadrature.

MATH 542. Introduction to Numerical Solutions of Differential Equations (3) II

Prerequisites: Mathematics 337 and 541.

Initial and boundary value problems for ordinary differential equations. Partial differential equations. Iterative methods, finite difference methods, and the method of lines.

MATH 543. Numerical Matrix Analysis (3)

Prerequisite: Mathematics 541.

Gaussian elimination, LU factorizations and pivoting strategies. Direct and iterative methods for linear systems. Iterative methods for diagonalization and eigensystem computation. Tridiagonal, Hessenberg, and Householder matrices. The QR algorithm.

MATH 544. Computational Finance (3)

Prerequisite: Statistics 550 or 551A.

Risk evaluation. Numerical procedures for evaluating financial derivatives. Monte Carlo simulation techniques.

MATH 561. Applied Graph Theory (3) I

Prerequisite: Mathematics 245 or 254.

Undirected and directed graphs, trees, Hamiltonian circuits, classical problems of graph theory including applications to linear systems.

MATH 562. Mathematical Methods of Operations Research (3) II

Prerequisites: Mathematics 252 and 254.

Theory and applications concerned with optimization of linear and non-linear functions of several variables subject to constraints, including simplex algorithms, duality, applications to game theory, and descent algorithms.

MATH 579. Combinatorics (3) II

Prerequisite: Mathematics 245.

Permutations, combinations, generating functions, recurrence relations, inclusion-exclusion counting. Polya's theory of counting, other topics and applications.

MATH 580. Risk Management: Stocks and Derivative Securities (3)

Prerequisite: Statistics 550 or 551A.

Theory of derivative securities with focus on evolution of stock prices and pricing of options.

MATH 581. Risk Management: Portfolio Selection and Other Features of Finance Markets (3)

Prerequisite: Statistics 550 or 551A.

Derivatives and term structures, method of principal components, theory of portfolio optimization, some numerical methods.

MATH 596. Advanced Topics in Mathematics (1-4) I, II

Prerequisite: Consent of instructor.

Selected topics in classical and modern mathematical sciences. May be repeated with the approval of the instructor. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

Mathematics Education

Course (MTHED)

LOWER DIVISION COURSE (Intended for Undergraduates)

NOTE: Proof of completion of Entry-Level Mathematics requirement required for Mathematics 118, 120, 121, 122, 141, 150, 210, 211: Copy of ELM score or verification of exemption.

MTHED 212. Children's Mathematical Thinking (1-1.5)

Prerequisite: Credit or concurrent registration in Mathematics 210.

Children's mathematical thinking and in-depth analyses of children's understanding of operations (addition, subtraction, multiplication, and division) and place value. Students will observe individual children solving mathematics problems. Real, compact disc, and/or web-based experience included.

Mathematics Specialist Certificate Program

The Mathematics Specialist Certificate Program for Grades 4-6 is open only to credentialed teachers. The certificate program is described in the *Bulletin of the Graduate Division* in the Mathematics and Science Education section. Undergraduate mathematics courses for the certificate program are listed below.

Courses (MATH)

MATH 281A-281B. Integrated Mathematics (2-2)

One lecture and two hours of activity.

Prerequisites: Mathematics 281A is prerequisite to 281B. Teaching credential and consent of instructor.

Number systems, geometry, and measurement, selected and sequenced as appropriate for practicing elementary teachers' needs.

MATH 383. Quantitative Reasoning (1)

One-half lecture and one hour of activity.

Prerequisites: Teaching credential and consent of instructor.

Reasoning about objects and their measurements and the relationships among these quantities. Understand situations that call for additive or multiplicative reasoning; the important role of proportional reasoning in many middle grades topics.

MATH 384. Fostering Algebraic Thinking (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.

MATH 385. Representing and Interpreting Data (1)

One-half lecture and one hour of activity.

Prerequisites: Teaching credential and consent of instructor.

Gathering, representing, and interpreting data sets.

MATH 386. Measuring Uncertainty (1)

One-half lecture and one hour of activity.

Prerequisites: Teaching credential and consent of instructor.

Prepare teachers to teach probability topics in grades 4-8 textbooks, simulating probabilistic situations, theoretical probabilities, expected values.

MATH 487. Algebra in the Middle Grades (3)

One lecture and four hours of activity.

Prerequisites: Teaching credential and consent of instructor.

Algebra as a powerful tool for analyzing, describing, and symbolizing physical relationships. Role of functions in algebra and in other areas of mathematics.

MATH 488. Geometry in the Middle Grades (3)

One lecture and four hours of activity.

Prerequisites: Mathematics 211, 281A-281B, teaching credential, and consent of instructor.

Geometry as a powerful tool for analyzing, describing, and symbolizing physical and abstract relationships. Properties and relationships of two and three dimensional figures. Role of measurement in geometry and in other areas of mathematics.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.

Mechanical Engineering

In the College of Engineering

OFFICE: Engineering 323L
TELEPHONE: 619-594-6067
E-MAIL: me@engineering.sdsu.edu

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

Faculty

Emeritus: Bauer, Bedore, Bilterman, Craig, Hoyt, Hussain, Lybarger, Mansfield, Morgan, Murphy, Ohnysty, Rao

Chair: May-Newman

Professors: Bhattacharjee, Kline

Associate Professors: Burns, Impelluso, May-Newman, Morsi, Olevsky

Assistant Professors: Beyene, Lambert

Adjunct: German, Wiederhold

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 and IV combined (Foundations and Explorations), nor more than 10 units from one department in Sections II, III, and IV combined (Foundations, American Institutions, and Explorations).

I. Communication and Critical Thinking: 9 units

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

1. Oral Communication (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)

II. Foundations: 29 units

A. Natural Sciences and Quantitative Reasoning (17 units):

1. Physical Sciences (10 units)
Engineering students will take Chemistry 202 which includes a laboratory (4 units).
Physics 195 (3 units)
Physics 196 (3 units)
2. Life Sciences (3 units)
3. Laboratory (satisfied under A.1. above)
4. Mathematics/Quantitative Reasoning
Engineering students will take Mathematics 150, 4 units applicable to General Education. You may **not** use Credit/No Credit grades.

B. Social and Behavioral Sciences (3 units)

C. Humanities (9 units)

Complete three courses in three different areas. One of these courses and the one under IV.A. below must be taken in the same department.

III. American Institutions: Three units of the six units of coursework which meet the American Institutions graduation requirement may be used in General Education, excluding courses numbered 500 and above.

IV. Explorations: Courses in this area must not be taken sooner than the semester in which you achieve upper division standing (60 units passed). Upper division courses in the major department may not be used to satisfy General Education. Total: 9 units; must include one course of cultural diversity.

A. Upper division Humanities (3 units)

Three units must be taken from the same department as one of the Humanities courses selected in Foundations.

B. Upper division Humanities (3 units from a department not selected in A above.)

C. Upper division Social and Behavioral Sciences (3 units)

The Major

Mechanical engineers invent solutions to problems involving a broad spectrum of thermal/mechanical/electromechanical devices. They create novel devices for solving problems in innovative ways. A newer focus for mechanical engineers is in the area of biomedical engineering, which is the application of quantitative engineering methods to the understanding and solution of biological and physiological problems. Another focus is the design of manufacturing systems. This involves improving quality and speed of manufacture through implementation of computer technology via robots and other automation equipment. Thus, Computer Aided Design (CAD), Computer Aided Manufacturing (CAM), and Computer Integrated Manufacturing (CIM) are all newer aspects of mechanical engineering education.

Jobs in mechanical engineering include developing products to improve air and water quality, inventing more efficient energy sources, designing farm equipment to improve crop yield throughout the world, and developing systems for biological research as well as lifesaving medical equipment. A mechanical engineer, now more than ever, is someone who can translate scientific theories into the real products and processes to improve the quality of life.

Mechanical engineers are designers, and the program is dedicated to teaching engineering through the process of design. Design methodology and design projects are integrated throughout the curriculum, culminating in a capstone, design experience in the senior year where students are members of a design team.

The future depends on solving the worldwide problems of energy shortages, environmental pollution, world health, and inadequate food production. Mechanical engineers are actively involved in finding solutions for these problems.

MECHANICAL ENGINEERING MAJOR

FRESHMAN YEAR

<i>Fall Semester</i>	<i>Units</i>	<i>Spring Semester</i>	<i>Units</i>
M E 101, Solid Modeling I	2	M E 102, Solid Modeling II.....	2
Chemistry 202, Gen. Chem. for Engrs.	4	Mathematics 151, Calculus II	4
Mathematics 150, Calculus I	4	Physics 195, Principles of Physics	3
General Education	6	General Education	9
	16		18

SOPHOMORE YEAR

<i>Fall Semester</i>	<i>Units</i>	<i>Spring Semester</i>	<i>Units</i>
M E 203, Computer Program. and Applic. 2		CIV E 301, Intro. to Solid Mechanics	3
M E 240, Intro. to Engineering Materials . 3		E E 203 or E E 204	
M E 241, Materials Laboratory	1	Principles of Electrical Engineering	3
E M 200, Statics	3	ENGR 280, Methods of Analysis	3
Mathematics 252, Calculus III	4	E M 220, Dynamics	3
PHYS 196 & 196L, Principles of Physics . 4		Physics 197, Principles of Physics	3
	17	General Education	3
			18

JUNIOR YEAR

<i>Fall Semester</i>	<i>Units</i>	<i>Spring Semester</i>	<i>Units</i>
M E 310, Engr. Design: Introduction	3	M E 312, Simulation of Engr. Systems	3
M E 340, Materials, Manufact. and Design 3		M E 314, Engr. Design: Mech. Comp. ...	3
M E 350, Thermodynamics	3	M E 330, Control Systems Laboratory	3
E M 340, Fluid Mechanics	3	M E 351, Engineering Thermodynamics	3
E M 341, Fluid Mechanics Laboratory	1	M E 452, Principles of Heat Transfer	3
General Education	6	General Education	3
	19		18

SENIOR YEAR

<i>Fall Semester</i>	<i>Units</i>	<i>Spring Semester</i>	<i>Units</i>
M E 490A, Engr. Design: Senior Project ..	2	M E 490B, Engr. Design: Senior Project	2
M E 495, Mechanical & Thermal Sys. Lab. 2		M E 555, Thermal Systems Analysis & Des.3	
M E 514, Advanced Machine Design	3	# Technical/Professional Electives	6
# Technical/Professional Electives	3	General Education	3
General Education	3	American Institutions	3
American Institutions	3		
	16		17

Approved as part of the student's master plan.

Educational Objectives

The objectives of the mechanical engineering program are:

1. To instill in students an open minded but critical approach to the analysis of problems and design of systems, keeping in mind the technical, professional, societal, economic, and ethical dimensions of any solution.
2. To prepare students for successful careers and to have an appreciation of the need for life-long learning in a rapidly changing field.
3. To give students a significant exposure to the humanities and social sciences in order to broaden their appreciation of the world and provide an understanding of the role that engineering plays in society.

Mechanical engineering students will graduate with the following abilities: a strong grounding in the fundamentals; knowledge of mathematics, science, and engineering; design and conduct experiments, analyze and interpret data; design a system, component, or process to meet desired needs; function on multidisciplinary teams; identify, formulate, solve engineering problems; understanding of professional and ethical responsibility; communicate effectively; understand impact

of engineering solutions in a global and societal context; recognition of need for and an ability to engage in life-long learning; knowledge of contemporary issues; techniques, skills, and modern engineering tools necessary for engineering practice; apply advanced mathematics through multivariate calculus and differential equations; familiarity with statistics and linear algebra; work professionally in both thermal and mechanical systems areas including the design and realization of such systems; be computer literate and Internet competent; and knowledge of chemistry and calculus-based physics.

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 52 upper division units. Students are provided with the opportunity to select a pattern of study to satisfy their areas of interest. This pattern of study is indicated in the

sequence known as “professional electives” and may be selected from available courses in controls, energy conversion, gas dynamics, heat transfer, machine design, materials, thermodynamics, vibrations, and other areas. *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.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better, or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in “Graduation Requirements” section for a complete listing of requirements.

Courses (M E)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

M E 101. Solid Modeling I (2)

Six hours of activity.

Computer-aided solid modeling, including engineering documentation, dimensioning and tolerancing per ASME Y14.5M-1004. Elementary sketching and dimensioning of orthographic and pictorial drawings and sections. (Formerly numbered Engineering 190.)

M E 102. Solid Modeling II (2)

Six hours of activity.

Prerequisite: Mechanical Engineering 101.

Continuation of computer-aided solid modeling and engineering documentation with geometric tolerancing, thread, and thread notations per ASME Y14.5M-1994. Finite element analysis (FEA) of mechanical components. (Formerly numbered Engineering 195.)

M E 203. Computer Programming and Applications (2) I

Six hours of activity.

Prerequisites: Mechanical Engineering 101 and Mathematics 151. Recommended: Mechanical Engineering 102.

Principles of programming using C and Java. Graphical programming using Labview. Topics include data types, loops, control flow, arrays, memory acquisition, data structures. Applications related to mechanical system components. (Formerly numbered Mechanical Engineering 290.)

M E 205. Simulation of Physical Systems (2) II

Six hours of activity.

Prerequisites: Mechanical Engineering 102, 203, Mathematics 252.

Mechanical mechanisms and dynamic simulation analyses. Construction of web-based virtual machines which operate according to physics. Typical machines include roller coaster, machining center, gear assemblies, stress testing devices, crane and bridges. Network communication software used to connect virtual machines using Java3D. (Formerly numbered Mechanical Engineering 295.)

M E 240. Introduction to Engineering Materials (3) I, II

Prerequisites: Chemistry 202 and credit or concurrent registration in Engineering Mechanics 200 or 202. **Proof of completion of prerequisites required:** Copy of transcript and evidence of concurrent registration in Engineering Mechanics 200.

Atomic and molecular structure of materials utilized in engineering. Analysis of the relationships between structure of materials and their mechanical, thermal, electrical, corrosion, and radiation properties. Examples of material structure relevant to civil, electrical, aerospace, and mechanical engineering applications. (Formerly numbered Mechanical Engineering 260.)

M E 241. Materials Laboratory (1) I, II

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Mechanical Engineering 240.

Experimental methods used to characterize engineering materials and their mechanical behavior.

M E 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

NOTE: Proof of completion of prerequisites required for all Mechanical Engineering 300-, 400-, and 500-level courses: Copy of transcript is acceptable as proof. In addition, Mechanical Engineering 351, 390, 490A, and 530 require evidence of concurrent registration in appropriate courses.

M E 310. Engineering Design: Introduction (3) I, II

Two lectures and three hours of guided design activities.

Prerequisites: Mechanical Engineering 102, 203, and Engineering Mechanics 220. Every mechanical engineering student must have a master plan on file before enrolling in Mechanical Engineering 310.

Professional approach to engineering design problems. Problem definition, information gathering, feasibility studies, analysis, final design and communication. Several design studies and projects are completed.

M E 312. Simulation of Engineering Systems (3) I, II

Prerequisites: Mechanical Engineering 203, 350; Civil Engineering 301; Electrical Engineering 203; Engineering 280; Engineering Mechanics 340.

Modeling, simulation, and analysis of various mechanical systems: dynamic, vibrational, electromechanical, thermodynamic, and fluidic. Circuits for monitoring and controlling mechanical systems. (Formerly numbered Mechanical Engineering 512.)

M E 314. Engineering Design: Mechanical Components (3) I, II

Prerequisites: Mechanical Engineering 310 and Civil Engineering 301.

Application of mechanics, physical properties of materials, and solid mechanics to the design of machine elements. Student design projects.

M E 330. Control Systems Laboratory (3) I, II

Two lectures and three hours of laboratory.

Prerequisites: Mechanical Engineering 203; Electrical Engineering 203; Engineering 280; Engineering Mechanics 220, 340; Linguistics 200 or Rhetoric and Writing Studies 200.

Control theory (e.g. stability, feedback, PID control) with applications in microprocessor-based control of dynamic, vibrational, and mechatronic systems. “Bread-boarding” and BASIC programming of microcontrollers and graphical programming of PC-based controller interfaces.

M E 340. Materials, Manufacturing, and Design (3) I, II

Prerequisites: Mechanical Engineering 240, 241; Civil Engineering 301.

Fabrication and thermomechanical processing effects on properties and service behavior of engineering materials. Fracture mechanics and materials behavior under a range of design conditions. Design criteria for engineering materials including fatigue and creep. Case studies and failure analysis techniques.

M E 350. Thermodynamics (3) I, II

Prerequisites: Mathematics 252 and Engineering Mechanics 200.

Basic concepts and principles of thermodynamics with emphasis on simple compressible substances. First and second law analysis, entropy, exergy analysis and state relations.

M E 351. Engineering Thermodynamics (3) I, II

Prerequisites: Mechanical Engineering 350 and credit or concurrent registration in Engineering Mechanics 340.

Analysis and design of gas and vapor power cycles, and refrigeration systems. Generalized property relations for gases and gas-vapor. Air-conditioning. Combustion and chemical equilibrium. Design of engineering systems and processes. (Formerly numbered Mechanical Engineering 450.)

M E 352. Thermodynamics and Heat Transfer (3) I, II

Prerequisites: Engineering Mechanics 200 or 202 and Mathematics 252.

First and second laws of thermodynamics; heat conduction, convection and radiation. Not acceptable for mechanical engineering majors.

M E 452. Principles of Heat Transfer (3) I, II

Prerequisites: Mechanical Engineering 350 and Engineering Mechanics 340.

Analytical and numerical solutions of steady and transient one- and two-dimensional conduction problems, forced and natural convection in external and internal flows, and thermal radiation. Applications. (Formerly numbered Mechanical Engineering 470.)

M E 490A-490B. Engineering Design: Senior Project (2-2) I, II

Six hours of guided design activities.

Prerequisites for 490A: Mechanical Engineering 312, 314, 330, 340, 351, 452. Biology students enrolling in this course must have completed Biology 366, Civil Engineering 301, Electrical Engineering 203, Mechanical Engineering 352, and have credit or concurrent registration in Biology 590.

Prerequisites for 490B: Mechanical Engineering 490A, 495, 514. Biology majors: Mechanical Engineering 490A and Biology 590.

Applications of engineering principles and design techniques to the designing, building, and testing of an engineering system. A single project is completed in this two-course sequence and is judged completed upon presentation of an oral and a written report. In addition, issues related to ethics and engineering practice are discussed.

M E 495. Mechanical and Thermal Systems Laboratory (2) I, II

One lecture and three hours of laboratory.

Prerequisites: Mechanical Engineering 314, 330, 351, 452.

Data acquisition theory, instrumentation, sensors, data reduction, statistical and uncertainty analysis, and design of experiments. Experience in designing, performing, and reporting experiments on mechanical and thermal systems, mechanisms, vibrations, structures, thermodynamics, heat transfer.

M E 496. Advanced Mechanical Engineering Topics (1-3) I, II

Prerequisite: Consent of instructor. **Proof of completion of prerequisite required:** Copy of transcript.

Modern developments in mechanical engineering. See *Class Schedule* for specific content. Maximum credit nine units for any combination of Mechanical Engineering 496, 499 and 596.

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

Prerequisite: Consent of instructor. **Proof of completion of prerequisite required:** Copy of transcript.

Individual study. Maximum credit six units for any combination of Mechanical Engineering 496, 499 and 596.

UPPER DIVISION COURSES

(Also Acceptable for Advanced Degrees)

NOTE: Proof of Completion of prerequisites required for all Mechanical Engineering 300-, 400-, and 500-level courses: Copy of transcript. In addition, Mechanical Engineering 351, 390, 490A, and 530 require evidence of concurrent registration in appropriate courses.

M E 514. Advanced Machine Design (3) I, II

Prerequisites: Mechanical Engineering 314 and 340.

Application of advanced mechanics of materials to design and analysis of mechanical elements. Probabilistic design and finite element methods and applications. Design projects involve extensive use of finite element programs. (Formerly numbered Mechanical Engineering 510.)

M E 520. Introduction to Mechanical Vibrations (3)

Prerequisites: Mechanical Engineering 312 and Civil Engineering 301.

Analysis of mechanical vibration; single- and multi-degree of freedom systems; free and forced vibrations; vibration isolation; vibration absorbers. Theory of vibration measuring instruments.

M E 530. Automatic Control Systems (3)

Prerequisite: Mechanical Engineering 312.

Dynamic characteristics of control components and systems. Stability and response of closed loop systems. Design of control systems.

M E 540. Nonmetallic Materials (3)

Prerequisites: Mechanical Engineering 314 and 340.

Fundamentals of ceramics, polymers, and composite materials. Materials design and selection. Statistical methods of brittle materials design, appropriate for ceramic materials, and rheological modeling of polymeric materials. Stress and strain analysis using classical lamination theory of multi-ply composite laminates.

M E 542. Manufacturing with Nonmetallic Materials (3)

Prerequisites: Mechanical Engineering 340 and Engineering 280 with a grade of C or better.

Engineering polymers and composites, processes, and manufacturing techniques. Polymer flow in extrusion, compression molding, RTM, and calendaring. Hands-on fabrication and test exercises included along with a capstone manufacturing project.

M E 546. Computer Aided Manufacturing (3)

Prerequisites: Mechanical Engineering 102, 314, 340; and Engineering 280 with a grade of C or better.

Computer controlled manufacturing and assembly techniques and devices. Databases and special languages. Agile manufacturing software programs and technologies.

M E 552. Heating, Ventilating, and Air-Conditioning (3)

Prerequisites: Mechanical Engineering 351 and 452.

Fundamentals of air conditioning processes, psychrometrics, and building cooling load calculations. Design and analysis of HVAC systems. Equipment selection. Design codes and standards. Computerized cooling load calculations. (Formerly numbered Mechanical Engineering 582.)

M E 555. Thermal Systems Analysis and Design (3)

Prerequisites: Mechanical Engineering 351 and 452.

Analysis, design, and optimization of thermal systems using microcomputers. Modeling of thermal systems and components. Thermal system component characteristics and their effect on overall system performance. Relationship among thermal sciences in design process. Introduction to thermoeconomic optimization. (Formerly numbered Mechanical Engineering 570.)

M E 556. Solar Energy Conversion (3)

Prerequisites: Engineering Mechanics 340, Mechanical Engineering 351 and 452.

Application of thermodynamics, fluid mechanics and heat transfer to the thermal design of solar energy conversion systems. Computer simulations utilized. (Formerly numbered Mechanical Engineering 586.)

Mechanical Engineering

M E 580. Biomechanics (3)

Prerequisites: Civil Engineering 301 and Engineering Mechanics 340.

Application of engineering methodologies for quantitative understanding of biological/physiological phenomena. Continuum mechanics principles. Cardiovascular system and its components viewed from a mechanistic standpoint. (Formerly numbered Mechanical Engineering 590.)

M E 596. Advanced Mechanical Engineering Topics (1-3) I, II

Prerequisite: Consent of instructor. **Proof of completion of prerequisite required:** Copy of transcript.

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

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.



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: Rideout
Professor: Rideout
Assistant Professors: Anderson, Henry, Rogers

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 four-year Army Reserve Officers Training Corps (ROTC) program designed to develop future officers in the areas of leadership, management, foreign policy, national security, military history, and military skills. The Army ROTC program also offers a series of optional adventure outings and on-campus activities during the school year. These include orienteering, rappelling, sports programs and social activities. Enrollment in the Army ROTC program is not a requirement for taking military science courses. The Military Science Department offers a varied class schedule to meet students' requirements.

The Army ROTC program consists of one course per semester along with scheduled leadership laboratories and field training. The four-year program is divided into two parts: the basic course and the advanced course. The basic course is usually taken in the freshman and sophomore years. No military commitment is incurred during this time, and students may withdraw at any time through the end of the second year. The first year consists of two-unit introductory courses each semester. The second year consists of two-unit courses with instruction on organizational leadership theories. Uniforms, necessary military science textbooks, and materials are furnished without cost.

After completing the basic course, students who have demonstrated officer potential, have met physical and scholastic standards and agree to contract are eligible to enroll in the advanced course. This course is normally taken in the final two years of college and consists of outlined military science and designated enrichment courses that include 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 (part-time) are available through simultaneous membership in local reserve and National Guard units.

Military Science Minor

The minor in military science consists of a minimum of 15 units to include Military Science 301, 302, 411; and six units selected from Military Science 401, 410, 499, and Sociology 499.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (MIL S)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

MIL S 96. Leadership Laboratory (1) I, II

Application of individual skills and military tasks appropriate to a small unit leader. Prepares cadets for higher level leadership positions. Emphasis is on performance in leader roles which includes instruction. Maximum credit two units. Credit earned in this course not applicable to a bachelor's degree.

MIL S 100A-100B. Introduction to the US Army (2-2) I, II

Semester I: Structure, organization, and missions of the US Army. Preparation and development for officer status. Semester II: Officer leadership, development, and functions. Emphasizing command responsibilities for a basic foundation of military fundamentals.

MIL S 210. Contemporary Military Leadership Theories: Individuals and Groups (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.

MIL S 211. Contemporary Military Leadership Theories: Organizations (2) II

Leadership at the organizational level with application to military settings with emphasis on developing leader skills and examination of theories and concepts of civil-military relations, using simulations, case studies, and diagnostic instruments.

MIL S 221. Cadet Basic Field Training (3)

Prerequisite: Sophomore standing.

Five-week field training with training in structure, organization, and missions of the US Army; officer leadership, development, and responsibilities; basic military skills; personal conditioning; oral and written military communications.

MIL S 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

MIL S 301. Skills of Military Leadership (3) I

Prerequisite: Equivalent of two-year basic course program.

Techniques and skills required of military leaders. Military methods of instruction, review of essential map reading skills and case studies of military leadership techniques.

MIL S 302. Theory and Dynamics of the Military Organization (3) II

Prerequisite: Equivalent of two-year basic course program.

Current tactical doctrine and military techniques of planning and coordination required to apply doctrine to small unit operations.

MIL S 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.

MIL S 410. Senior Leadership Seminar (3) I, II

Prerequisites: Military Science 301 and 302.

Leadership and management problems encountered in a mid-level sized organization. Role of the junior officer. Designed to prepare senior cadets for positions as leaders and managers of resources at the platoon/company level.

MIL S 411. Contemporary Military Policy (3) II

Prerequisites: Military Science 301 and 302.

The military justice system as it has evolved from international law principles and established national security policies. History of military law, the philosophy and structure of the system to include court-martial ethics and decision-making.

MIL S 496. Experimental Topics (1-4)

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

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

Prerequisite: Consent of department chair.

Individual study. Maximum credit six units.

Music

OFFICE: Music 112
TELEPHONE: 619-594-6031
FAX: 619-594-1692
E-MAIL: music.dance@sdsu.edu

In the College of Professional Studies and Fine Arts

Faculty

Emeritus: Almond, Anderson, Barra, Biggs, Blyth, Brown, Bruderer, Brunson, Estes, Forman, Genzlinger, Hill, Hogg, Lambert, Loomis, Meadows, Mitchell, Moe, Rost, Sheldon, Ward-Steinman, Yates
Director: Chambers
Professors: Chambers, Dutton, Follingstad, Kolar, Liebowitz, Logan, O'Donnell, Peterman, Stauffer, Yeager
Associate Professors: McDonald, Waters
Assistant Professors: Delgado, Friedrichs, Helzer, Olschofka, Thompson
Lecturers: Flood, Warman

Applied Music Instruction

Piano: Darby, Follingstad, Kolar
Harpsichord: Paul
Organ: Plimpton
Voice: Chambers, Latour, MacKenzie, Nikkel, Tweed, Westbrook, Whitaker
Flute: Bell, Payne
Oboe: Reed, Rosenwein
Clarinet: Liebowitz
Saxophone: Rewoldt, Rekevics
Early Instruments: Peterman
Bassoon: Schoneman
French Horn: Gref, Lorge
Trumpet: Glasson, Price, Wilds
Trombone: Fellingner, Yeager
Baritone Horn: Dutton
Tuba: Dutton
Percussion: Flood
Violin: Constantino, Olschofka
Viola: Gerard
Cello: Stauffer
Contrabass: G. Biggs
Harp: Mashkovtseva
Classical Guitar: Benedetti, Romero, Svoboda, Wetzel
Composition: Dutton, Stauffer, Waters
Non-Western Instruments: Specialists from specific cultures as available each semester
Jazz Studies: Helzer, Thompson, Yeager
Opera: Evans-O'Connor

Offered by the School of Music and Dance

Master of Arts degree in music.
Master of Music degree.
Major in music with the B.A. degree in liberal arts and sciences.
Bachelor of Music degree in applied arts and sciences.
Teaching major in music for the single subject teaching credential.
Minor in music.
Certificate in artist diploma, advanced.

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, sight-singing, improvisation and music composition.

The Bachelor of Music program is for those students who have professional ambitions in music performance, public school teaching, composition, jazz studies, as a music generalist or seek a foundation for graduate study leading to college or university teaching or research positions. This program strongly emphasizes the professional aspects of music. The Bachelor of Music degree, with a specialization in Music Education leads to the California Single Subject Teaching Credential.

The performance of music is the most obvious and frequent use of the musician's skill. However, graduates may also teach, compose, review, sell, and record music. In addition, inventing, constructing, tuning, and repairing instruments requires skills which are based on understanding the fundamentals of music. Some of the positions that a music graduate might hold include studio instructor; teacher in public or private schools; researcher for libraries, publishers, and museums; music therapist; recording artist, composer, or arranger, professional musician with an orchestra, band, or opera company.

The Bachelor of Arts degree is a liberal arts degree for those students who seek an understanding of and an intimate orientation to the discipline of music without professional goals. This degree enables students to obtain this broad understanding.

Several Music Minor options are available for those students whose primary interest is in another department.

Advising

All music majors are required to consult with their music faculty adviser as soon as possible; they are required to meet with their faculty adviser within the first two semesters after acceptance or transfer into the major.

Music Curricula

General Basic Requirements

1. All new students and transfer students who wish to enroll as music majors or minors are given placement examinations in music theory and piano and auditions on their major instrument. On the basis of these examinations and auditions, recommendations of specific courses will be made by the music faculty adviser. The specific courses are Music 105, 106A, 106B, 205A, 205B, 305A, 305B, 405A, 405B; Music 251 and 451 with the appropriate letter suffix; and Music 110A-110B, 110C-110D.
2. Each semester of private instruction concludes with a solo performance before a faculty jury. The jury grade accounts for one-third of the final semester grade; the instructor's grade accounts for the remaining two-thirds.
3. To qualify for upper division study, music majors must pass a Junior Level Examination. This is a more intensive solo performance before a faculty jury at the close of the fourth semester of study in Music 251. If it is not passed, a grade of "I" (Incomplete) is recorded. This must be resolved before enrollment in upper division study is permitted.

4. The Comprehensive Musicianship Aural Skills Examination is a requirement for graduation in the Bachelor of Music degree program. It is given at the end of each semester and may be retaken until passed. The examination includes sight-singing, melodic and harmonic dictation, error detection, chromatic and modern harmony. A final grade of C (minimum) is required in each semester of the CM courses in order to advance to the next higher course.
5. Students must participate in at least one ensemble each semester of enrollment. Please see each degree program and specialization for specific unit requirements. At least one-half of these requirements must be met by participation in a "large" ensemble in which the major instrument or voice is used. Refer to the Music Student Handbook for more details.
6. Attendance at and performance in recitals is a requirement of all music majors as set forth in the music recital regulations.

Refer to the Music Student Handbook for detailed information.

Electives in Music – Non-Majors

The School of Music and Dance offers certain courses for students who are interested in music as an elective study area for the enrichment of their cultural background. Courses particularly suited for these needs are Music 102, 110A, 115, 151, 240, 345, 351A, 351B, 351D, 445, and the music courses numbered 170 to 189 and from 369 to 389. Some students will be musically prepared to elect courses which may or may not be included in this group. Enrollment by qualified students who wish to elect these courses is encouraged.

Opportunities to participate in instrumental and vocal ensembles are also available to non-music majors. Music ensemble courses may be repeated. A maximum credit of eight units of ensemble courses (Music 170-189, 369-389, 569-589) may be counted toward a bachelor's degree for non-majors.

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)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units to include Music 305A, 305B, 308A, 308B, 347; four units selected from courses numbered 369 through 389; 408A, 592, and seven units of upper division music electives.

Music Major

With the Bachelor of Music Degree in Applied Arts and Sciences (Major Code: 10041)

All candidates for a bachelor of music degree must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." The maximum number of units in upper division music courses acceptable toward the Bachelor of Music degree is 70.

A minor is not required with this major.

Preparation for the Major. All majors must fulfill the requirements in one of the following areas of specialization.

(a) **General Music.** Music 104, 110A-110B, 110C-110D (may be waived in full or in part by examination); Music 115, 151, four units selected from courses numbered 170 through 189; Music 204, 205A, 205B; five units to include Music 220, 225, 230, 235, 240; four units of Music 251; four lower division music electives. (33 units)

(b) **Music Education.** Music 104, 110A-110B, 110C-110D (may be waived in full or in part by examination); Music 115, 151, four units selected from courses numbered 170 through 189; Music 204, 205A-205B; five units to include Music 220, 225, 230, 235, 240; Music 246A-246B, four units of Music 251. (33 units)

(c) **Performance.** Music 104, 110A-110B, 110C-110D (may be waived in full or in part by examination); Music 151; six units selected from courses numbered 170 through 189; Music 204, 205A-205B; four to eight units of Music 251. (25-29 units)

(d) **Composition.** Music 104, 110A-110B, 110C-110D (may be waived in full or in part by examination); Music 151, six units selected from courses numbered 170 through 189; Music 204, 205A-205B; two units of Music 207; four to six units of Music 251. (27-29 units)

(e) **Jazz Studies.** Music 104, 151, 166; six units selected from courses numbered 170 through 189; Music 204, 205A-205B; four to eight units of Music 251; Music 266. (25-29 units)

Language Requirement.

1. Vocalists in Performance—competency (equivalent to that which is normally attained in one semester of college study) in French, German, and Italian.
2. Jazz Studies—no language equivalency required.
3. Music Education—competency (equivalent to that which is normally attained in two semesters of college study) in Spanish.
4. All Others—competency (equivalent to that which is normally attained in two semesters of college study) in French, German, Italian, or Spanish.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major.

(a) **General Music.** Music 305A-305B, 308A-308B; Music 347; one unit of Music 348 or 349; four units selected from music courses numbered 369 through 389; Music 405A-405B, 408A-408B; four units of Music 451; seven units of upper division music electives. (37 units)

(b) **Music Education.** All candidates for a teacher credential must complete all requirements as outlined in this section of the catalog under *Policy Studies or Teacher Education*. This major may be used by students in *Policy Studies or Teacher Education* as an undergraduate major for the Bachelor of Music degree. Music 305A-305B, 308A-308B; Music 343 and three upper division music electives, or Music 554B, 554C, and 554E; Music 346, 347; one unit of Music 348 or 349; four units selected from music courses numbered 369 through 389; Music 405A-405B, 408A-408B; Music 446, four units of Music 451. (40 units)

(c) **Performance.** Music 305A-305B, 308A-308B; Music 347; one unit of Music 348 or 349; Music 367; six units selected from music courses numbered 369 through 389; Music 405A, 408A-408B; eight units of Music 451; Music 497; five units selected from Music 515, 516, 541, 542, 554. (Pianists must include Music 541A and 542A. Vocalists must include Music 541C and 554D). (41 units)

Students specializing in performance must appear in a joint recital during the junior year and must present a solo recital during the senior year. The student must pass an audition of the program to be performed before the music faculty no less than one month in advance of the recitals.

(d) **Composition.** Music 305A-305B, 308A-308B, 347; one unit of Music 348 or 349; six units selected from music courses numbered 369 through 389; Music 405A-405B, 408A-408B; six units of Music 451; Music 497; two units of Music 507; and two units of upper division music electives. (40 units)

The specialization may not be formalized until completion of Music 205B, or waiver by examination.

Students specializing in composition are required to present a concert of their compositions during the senior year and present the scores of works to be performed to the music faculty no less than one month in advance of the performance.

(e) **Jazz Studies.** Music 305A-305B, 308A-308B, 347, 364A-364B, 366, 367; six units selected from music courses numbered 369 through 389; Music 405A, 408A; eight units of Music 451; Music 466, 497, 566A-566B. (45 units)

Performance Studies for Credit

Credit may be allowed for performance studies under the following conditions:

1. Properly enrolled Bachelor of Music majors may enroll for performance studies with resident faculty without an additional fee.
2. Students may under no circumstances change instructors in the middle of a semester without first securing the permission of the director of the School of Music and Dance.
3. Prior to the start of performance studies at San Diego State University, students are required to take a preliminary audition conducted by music faculty which will indicate status at the beginning of their studies.
4. Students who have dropped out of school or have stopped taking performance studies for credit for one semester or more, upon resumption of that instruction for credit are required to present another preliminary audition.
5. At the end of each semester, the School of Music and Dance will sponsor a jury examination to satisfy itself that its standards have been met.
6. Students enrolled in performance studies must be concurrently enrolled in the Comprehensive Musicianship program until such time as the CM requirements are fulfilled.

Music Minor

To be admitted to the minor program, the student must audition to demonstrate vocal or instrumental performing ability.

The minor in music consists of 24 units in music selected from one of the following areas:

Electronic Music. Requirements include Music 104, 105, 106A, 106B, 110A-110B, 160, 207, 260, 351B, 360; two units of Music 370; Music 460; and two units of Music 507.

Elementary Music Education. Requirements include Music 102, 110A-110B, 115; two units of Music 170-189; four units of Music 220, 225, 230, 235, 240; Music 246A, 343, 345; two units of Music 369-389; and two units of upper division music electives.

Students 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, 364A-364B, 366, 466, 566A*, 566B*.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

* Additional prerequisites required.

Courses (MUSIC)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

MUSIC 101. Recitals (1) Cr/NC I, II

Preparation for individual solo performances and attendance at a minimum of 12 concerts or recitals in accordance with music requirements. Maximum credit four units.

MUSIC 102. Basic Musicianship for Non-Music Majors (3) I, II

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. For liberal studies and preservice teachers. Not open to students with credit in Music 105.

MUSIC 104. Music Technology I (1)

Two hours of activity.
Current technology in music composition, ear-training, score preparation, performance and research practices. Open to music majors and minors only.

MUSIC 105. Introduction to Elements of Music (2)

Introduction to music from an aesthetic, communicative, theoretical and creative perspective. Development of understanding of aesthetic valuing, musical notation, rhythm, theory, pitch, and musical terminology. Not open to students with credit in Music 102. (Formerly numbered Music 105A.)

MUSIC 106A. Introduction to Aural Skills I (1) Cr/NC

Three hours of activity.
Introduction to sight-singing and music dictation. Not open to students with credit in Music 102.

MUSIC 106B. Introduction to Aural Skills II (1) Cr/NC

Three hours of activity.
Prerequisite: Music 106A.
Introduction to sight-singing and music dictation continued.

MUSIC 110A-110B. Piano – Elementary Class Instruction (1-1) 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.

MUSIC 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.

MUSIC 115. Voice – Elementary Class Instruction (1) I, II

Two hours.
Mastery of the fundamentals of voice. Not open to voice majors.

MUSIC 151. Introduction to Music (3) 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.

MUSIC 160. Introduction to Electro-Acoustic Music (2)

One lecture and two hours of activity.
Historical overview of electro-acoustic music with hands-on introduction to analog multi-track recording/mixing, digital sequencing with emphasis on shared lineage of classical and popular idioms.

MUSIC 166. Elements of Jazz I (2)

Fundamental harmonic analysis of basic jazz progressions, common modes and blues scale variations, solo transcription analysis, and ear-training.

Performance Organization Courses (Music 170 through 189)

The performance organization courses are devoted to the study in detail and the public performance of a wide range of representative literature for each type of ensemble and designed to provide students with practical experience in rehearsal techniques.

MUSIC 170. Chamber Music (1) I, II

Three hours. Four hours for opera.

Prerequisite: Consent of instructor.

Sections for string, woodwind, brass, piano, vocal, and mixed ensemble groups of three or more players. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit four units.

MUSIC 174. Concert Band (1) 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.

MUSIC 175. Marching Band (2) I

More than six hours.

Prerequisite: Consent of instructor.

Study and public performance of literature for the ensemble. Practical experience in rehearsal techniques. Maximum combined credit for Music 175 and 375 eight units.

MUSIC 176. Wind Symphony (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Study and performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 177. Symphonic Band (1)

Five hours.

Prerequisite: Consent of instructor.

Study and performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 180. Symphony Orchestra (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Maximum credit four units.

MUSIC 184. Opera Theatre (2) I, II

Six or more hours per week.

The interpretation and characterization of light and grand opera. Specific work in coordination of operatic ensemble. Maximum credit eight units.

MUSIC 185. Concert Choir (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Maximum credit four units.

MUSIC 186. Chamber Singers (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal technique. Maximum credit four units.

MUSIC 189. Jazz Ensemble (1) I, II

More than three hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 204. Music Technology II (1)

Two hours of activity.

Prerequisite: Music 104.

Current technology in music composition, ear-training, score preparation, performance, and research practices. Open to music majors and minors only.

MUSIC 205A. Comprehensive Musicianship (3)

Two lectures and two hours of laboratory.

Prerequisite: Music 105 or passing placement examination.

Music theory, harmony, and musicianship. Instrumentation and notation, composition and arranging. World Music Laboratory: African ensemble and dance. Open to music majors and minors only.

MUSIC 205B. Comprehensive Musicianship (3)

Two lectures and two hours of laboratory.

Prerequisite: Music 205A with a grade of C (2.0) or better.

Tonal harmony in the common-practice period. Composition with ostinato forms. World Music Laboratory: Javanese gamelan. Open to music majors and minors only.

MUSIC 206A-206B. Aural Skills (1-1) Cr/NC

Prerequisite for Music 206A: Music 106B. Prerequisite for Music 206B: Music 206A.

Preparation for Junior Level Aural Skills Examination. For music majors only.

MUSIC 207. Composition Laboratory (1)

Three hours of laboratory.

Prerequisite: Consent of instructor.

Original writing in different homophonic and polyphonic forms for various media. Maximum credit two units.

MUSIC 220. Strings – Elementary Class Instruction (1)

Two hours.

Fundamentals of string instruments by lecture and acquisition of elementary skills for purpose of gaining teaching and conducting skills in working with strings. Primarily for music education majors.

MUSIC 225. Woodwinds – Elementary Class Instruction (1)

Two hours.

Fundamentals of woodwind instruments by lecture and acquisition of elementary skills for purpose of gaining teaching and conducting skills in working with woodwinds. Primarily for music education majors.

MUSIC 230. Brass – Elementary Class Instruction (1)

Two hours.

Fundamentals of brass instruments by lecture and acquisition of elementary skills.

MUSIC 235. Percussion – Elementary Class Instruction (1)

Two hours.

Fundamentals of percussion through acquisition of elementary skill on the snare drum and by demonstration and lecture regarding all commonly used percussion instruments of definite and indefinite pitch.

MUSIC 240. Guitar – Elementary Class Instruction (1) I, II

Two hours.

Open to all students interested in fundamentals of guitar and elementary music skills.

MUSIC 246A. Practicum in Music Education I (2) II

One lecture and two hours of activity.

Prerequisite: Music 205B.

Introduction to music education. Exposure to music teaching profession at all grade levels before choosing an area of specialization.

MUSIC 246B. Practicum in Music Education II (2)

One lecture and two hours of activity.

Prerequisite: Music 246A with a grade of C (2.0) or better.

Methods and materials. Development of lesson plan and selection of appropriate materials and methods. Rehearsal techniques for elementary, junior high, and high school. Observations of public school master teachers.

MUSIC 251. Performance Studies (1-2) I, II

Fifteen one-half hour private lessons for one unit; fifteen one-hour private lessons for two units.

Prerequisite: Open only to music majors. Audition and approval by music faculty.

Studies in technical, stylistic, and aesthetic elements of artistic performance. Maximum credit for Music 251 is eight units.

- | | |
|----------------------------|---|
| A. Keyboard | H. Harp |
| B. Voice | I. Jazz Instruments |
| C. Woodwinds | J. Medieval or Renaissance Instruments |
| D. Brass | K. Non-Western Instruments |
| E. Percussion | L. Composition |
| F. Strings | |
| G. Classical Guitar | |

MUSIC 260. Electro-Acoustic Music Composition I (2)

One lecture and two hours of activity.

Prerequisite: Music 160.

Sound sampling, musique concrete, subtractive synthesis, physics of sound and basic digital audio theory. Emphasis on application of techniques and theoretical knowledge to produce original musical compositions.

MUSIC 266. Elements of Jazz II (2)

Prerequisite: Music 166.

Harmonic analysis of standard and bebop repertoire, less common modes and dominant scales, solo transcription, analysis, and ear-training.

MUSIC 296. Experimental Topics (1-4)

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

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

MUSIC 301. Recitals (1) Cr/NC I, II

Preparation for individual solo performances and attendance at a minimum of 12 concerts or recitals in accordance with music requirements. Maximum credit four units.

MUSIC 305A. Comprehensive Musicianship (3)

Two lectures and two hours of laboratory.

Prerequisites: Music 205B with a grade of C (2.0) or better. Concurrent registration in Music 308A.

Counterpoint in 16th and 18th century styles. Composition of a 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.

MUSIC 305B. Comprehensive Musicianship (3)

Two lectures and two hours of laboratory.

Prerequisites: Music 305A with a grade of C (2.0) or better. Concurrent registration in Music 308B.

Theory and harmony of 19th and early 20th centuries. Analytic techniques, composition in sonata form. World Music Laboratory: Latin American ensemble. Open to music majors and minors only.

MUSIC 308A. Music History: Medieval – Renaissance (2)

One lecture and two hours of laboratory.

Prerequisites: Music 151. Concurrent registration in Music 305A.

European art music from ancient Greece through the Renaissance. Evolution of musical style in a historical and cultural context. Interrelationships of music, politics, technology, economics, and ideology. Open to music majors and minors only.

MUSIC 308B. Music History: Baroque – Classic (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.

MUSIC 343. Music Literature for Children (3) I, II

Prerequisite: Music 102 or 205B.

Analytical study of music suitable for children of all ages. Background information, musical structure and functions of this music in the lives of children.

MUSIC 345. World Music in Contemporary Life (3) I, II

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

Folk, ancient, and modern art music of world cultures, including traditional music of Africa, Asia, Latin America, the United States and Europe, as they relate to contemporary culture. Concert attendance required. Not open to music majors.

MUSIC 346. Practicum in Music Education III (2) 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.

MUSIC 347. Conducting (1)

Prerequisite: Music 205B with a grade of C (2.0) or better.

Basic techniques of conducting. Baton technique, conducting patterns, score reading, elements of performance and interpretation. Practical experience in typical conducting situations.

MUSIC 348. Choral Conducting (1)

Prerequisite: Music 347 with a grade of C (2.0) or better.

Elements of baton technique and development of skills common to choral conducting. Representative literature and techniques for choral organizations studied and performed. Practical experience in typical conducting situations.

MUSIC 349. Instrumental Conducting (1)

Prerequisite: Music 347 with a grade of C (2.0) or better.

Elements of baton technique and development of skills common to instrumental conducting. Representative literature and techniques for instrumental organizations studied and performed. Practical experience in typical conducting situations.

MUSIC 351. Great Music (3) 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

MUSIC 360. Electro-Acoustic Music Composition II (2)

One lecture and three hours of laboratory.

Prerequisite: Music 260.

Concepts, terminology, and history combined with composition and recording projects introducing analog electro-acoustic music with multi-track recording and analog synthesizers; or digital electro-acoustic music using digital synthesizers and computer software. May be repeated with new content. Maximum credit four units. (Formerly numbered Music 310.)

MUSIC 364A-364B. History of Jazz (2-2)

Jazz style and forms as they have evolved historically. Classroom playing experience in jazz styles as a part of study. Designed for music majors and minors.

MUSIC 366. Elements of Jazz III (2)

Prerequisite: Music 266.

Post bop repertoire, altered modes and scales, solo transcription, analysis, and ear-training.

MUSIC 367. Junior Recital (1) Cr/NC I, II

Prerequisite: Junior standing in music.

Selection of literature for recital program not to exceed 30 minutes in length; theoretical analysis and historical study of scores chosen; preparation and public performance; and examination before committee of music faculty.

Performance Organization Courses (Music 369 through 389)

The performance group courses are devoted to the study in detail and the public performance of a wide range of representative literature for each type of ensemble, and designed to provide students with practical experience in rehearsal techniques.

MUSIC 369. Collegium Musicum (1) I, II

Prerequisite: Consent of instructor.

Performance of medieval and renaissance music on reproductions of historical instruments. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit four units.

MUSIC 370. Chamber Music (1) I, II

Three hours. Four hours for opera.

Prerequisite: Consent of instructor.

Sections for string, woodwind, brass, piano, vocal, and mixed ensemble groups of three or more players. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit four units.

MUSIC 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.

MUSIC 375. Marching Band (2) I

More than six hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal technique. Maximum combined credit for Music 175 and 375 eight units.

MUSIC 376. Wind Symphony (1) I, II

Five hours per week.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 377. Symphonic Band (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Study and performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 380. Symphony Orchestra (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Maximum credit four units.

MUSIC 384. Opera Theatre (2) I, II

Six or more hours per week.

Interpretation and characterization of light and grand opera. Specific work in coordination of opera ensemble. Maximum credit eight units.

MUSIC 385. Concert Choir (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Maximum credit four units.

MUSIC 386. Chamber Singers (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal technique. Maximum credit four units.

MUSIC 389. Jazz Ensemble (1) I, II

More than three hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 405A. Comprehensive Musicianship (3)

Two lectures and two hours of laboratory.

Prerequisites: Music 305B with a grade of C (2.0) or better. Concurrent registration in Music 408A.

Harmony and counterpoint in the 20th century, from Impressionism to present. Analysis and composition in post-tonal or 12-tone techniques. World Music Laboratory: Asian or folk ensemble.

MUSIC 405B. Comprehensive Musicianship (3)

Two lectures and two hours of laboratory.

Prerequisites: Music 405A with a grade of C (2.0) or better. Concurrent registration in Music 408B.

Musical developments in last half of 20th century. Independent projects in composing and arranging for small and large ensembles. Laboratory: New music ensemble. Open to music majors and minors only.

MUSIC 408A. Music History: Romantic – Twentieth Century (2)

One lecture and two hours of laboratory.

Prerequisites: Music 308B. Concurrent registration in Music 405A.

European art music from 1800 to present. Evolution of musical style in a historical and cultural context. Interrelationships of music, politics, technology, economics, and ideology. Open to music majors and minors only.

MUSIC 408B. Music History: Jazz Survey and Improvisation (2)

One lecture and two hours of laboratory.

Prerequisites: Music 408A. Concurrent registration in Music 405B.

Historical and theoretical overview of jazz art music tradition. Rhythmic, harmonic, and melodic components. Analytical score study. Practical experience in modal and tonal jazz improvisation. Open only to music majors and minors.

MUSIC 445. Performing Arts and Culture (1)

Prerequisite: Upper division standing.

Exploration of traditional performing arts of different contemporary world cultures, with emphasis on kinesthetic and psychological aspects of experience of performance. Open to all upper division students. May be repeated with new content. Maximum credit three units.

MUSIC 446. Practicum in Music Education IV (2) 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.

MUSIC 451. Performance Studies (1-2) I, II

Fifteen one-half hour private lessons for one unit; fifteen one-hour private lessons for two units.

Prerequisite: Open only to music majors. Audition and approval by music faculty.

Studies in technical, stylistic, and aesthetic elements of artistic performance. Maximum credit for Music 451 is eight units.

- | | |
|----------------------------|---|
| A. Keyboard | H. Harp |
| B. Voice | I. Jazz Instruments |
| C. Woodwinds | J. Medieval or Renaissance instruments |
| D. Brass | K. Non-Western Instruments |
| E. Percussion | L. Composition |
| F. Strings | |
| G. Classical Guitar | |

MUSIC 460. Art of Recording (3)

Two lectures and three hours of activity.

Prerequisite: Music 360.

Creation of audio recordings of artistic merit. Vocal/instrumental microphone techniques for classical, jazz, rock; recording audio design, construction; acoustical properties, theories, mathematics.

MUSIC 466. Elements of Jazz IV (2)

Prerequisite: Music 366.

Atonal and aeromedical theories and philosophy, research paper, solo transcription, analysis, and ear-training.

MUSIC 496. Experimental Topics (1-4)

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

MUSIC 497. Senior Recital (2) Cr/NC I, II

Prerequisite: Senior standing in music.

Selection of literature for recital program not to exceed one hour in length; theoretical analysis and historical study of scores chosen; preparation and public performance; and examination before committee of music faculty.

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

Prerequisite: Consent of the music director.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

MUSIC 507. Composition Laboratory (1)

Three hours of laboratory.

Prerequisites: Music 207 with a grade of C (2.0) or better and consent of instructor.

Continuation of Music 207. Maximum credit two units.

MUSIC 515. Professional Orientation for Music Performers (2)

One lecture and two hours of activity.

Prerequisites: Twelve units of upper division or graduate standing in B.M. or M.M. degree. Others by consent of instructor.

Conditions met in professional music world as well as opportunities available. Auditions, contracts, legal and tax responsibilities, media and press promotion, grants, professional management, apprenticeships.

MUSIC 516. Performance Practice Forum (1)

Two hours of activity.

Prerequisite: Consent of instructor.

Musical style, repertoire, presentation, and evaluation as embodied in a musical performance. May be repeated with new content. Maximum credit four units.

MUSIC 541. Performance Studies Pedagogy (3)

Two lectures and three hours of laboratory.

Prerequisite: Consent of instructor.

Teaching beginning and intermediate applied music. Survey and evaluation of teaching materials. Observation of individual or group lessons.

- A.** Piano
C. Voice

MUSIC 542. Performance Studies Laboratory (2)

One lecture and three hours of laboratory.

Prerequisites: For 542A: Music 541A with a grade of C (2.0) or better.

For 542C: Music 541C with a grade of C (2.0) or better.

Practical experience in the teaching of individual or group lessons.

A. Piano

C. Voice

MUSIC 543. Diction (1)

Principles of pronunciation and enunciation. Application to song and opera in English, Italian, German, and French.

MUSIC 554. Music Literature (2) 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)

MUSIC 561. Area Studies: Ethnomusicology (3)

Prerequisite: Music 305B with a grade of C (2.0) or better.

Music of a specific culture. May be repeated with new content. See

Class Schedule for specific content. Maximum credit six units.

MUSIC 566A-566B. Jazz Arranging and Composition (2-2)

Prerequisite: Music 305B with a grade of C (2.0) or better.

Analysis of jazz compositions and arrangements; arranging and composing for large and small jazz ensembles.

MUSIC 569. Advanced Collegium Musicum (1) I, II

Prerequisite: Music 369.

Preparation and performance of representative works by a specific medieval or renaissance composer on historical instruments. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit four units.

MUSIC 570. Advanced Chamber Music (1) I, II

Three hours.

Prerequisite: Consent of instructor.

Study and public performance of established repertory as well as new compositions. Sections for string, woodwind, brass, piano, vocal, and mixed ensemble groups of three or more players. May be repeated with new course content. See *Class Schedule* for specific content. Maximum credit four units.

MUSIC 576. Wind Symphony (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 577. Symphonic Band (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Study and performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 580. Symphony Orchestra (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 584. Opera Theatre (2)

Six or more hours per week.

Prerequisite: By audition.

Interpretation and characterization of light and grand opera. Specific work in coordination of opera ensemble. Maximum credit eight units of which six units are applicable to a master's degree.

MUSIC 585. Concert Choir (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 586. Chamber Singers (1) I, II

Five hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal technique. Maximum credit four units.

MUSIC 589. Jazz Ensemble (1) I, II

Three hours.

Prerequisite: Consent of instructor.

Study and public performance of representative literature for the ensemble. Practical experience in rehearsal techniques. Maximum credit four units.

MUSIC 590. Advanced Practicum in Music (3)

Prerequisite: Consent of instructor in area of practicum.

Students will be assigned to appropriate class sections within selected undergraduate area as instructional assistants under staff supervision.

MUSIC 592. Analogs in Music, Art, and Literature (3)

Prerequisite: At least one survey course in music history or appreciation, art history, or comparative literature.

Cross-influences and correspondences in the arts from the standpoints of style, texture, rhythm, and form.

MUSIC 596. Special Topics in Music (1-3)

A specialized study of selected topics from the several areas of music. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to Bulletin of the Graduate Division.



Natural Science

In the College of Sciences

Administered by the Department of Physics

OFFICE: Physics 131
TELEPHONE: 619-594-6240

Faculty

Emeritus: Dessel, Dowler, Feher, Fisher, May, Thompson, Wallace
Program Coordinator: Roeder, P.

Faculty: Goldberg (Physics), Kimbrough (Geological Sciences),
Metzger (Chemistry and Biochemistry), Riggs (Geological
Sciences)

Offered by Natural Science

Teaching major in physical science for the single subject teaching
credential in science/physical science.

Minor in history of science and technology.

The Major

The physical science major is offered as an interdisciplinary approach to the study of science. It stresses the interrelationship of physics with chemistry, geology, astronomy, biology, and mathematics. The major is designed primarily for students who intend to become high school teachers of both interdisciplinary science and physics.

One of the requirements for acceptance into the College of Education's post-baccalaureate credential program is to either pass the appropriate CSET examinations or complete an approved academic program. The single subject teaching credential in science subject matter preparation program described below satisfies the academic requirements for a student planning to teach integrated science and physics at the secondary level. Entrance into the post-baccalaureate credentialing program in part requires certification of subject matter competency by this program. This certification requires completion of the academic program with the required grades, submission of a satisfactory portfolio, and the recommendation of the department. Contact the subject matter preparation program adviser. In addition, all candidates for a Single Subject Teaching credential at San Diego State University must complete the requirements outlined in the catalog under Teacher Education or Policy Studies. Contact the School of Teacher Education or the Policy Studies in Language and Cross-Cultural Education department for up-to-date information on prerequisites.

Physical Science Major

**In preparation for the Single Subject Teaching Credential
in Science/Physical Science**

**With the B.A. Degree in Applied Arts and Sciences
(Major Code: 19011)**

The physical science major in preparation for the single subject teaching credential in science/physical science has been submitted to the California Commission on Teacher Credentialing for approval.

Contact the natural science program coordinator for additional information.

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of the catalog on "Graduation Requirements." Candidates may complete

one of their two American Institutions courses at the upper division level or satisfy the California state and local government portion of American Institutions by passing the California Government examination available through the Office of Student Testing, Assessment and Research.

A minor is not required for this major.

Preparation for the Major. Africana Studies 140 or Chicana and Chicano Studies 121A or Communication 103; Astronomy 109, 201; Biology 201A, 201B; Chemistry 200, 201; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, 197L; Teacher Education 211 (1 unit). (50 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 31 upper division units to include Natural Science 315; Geological Sciences 412; Mathematics 342A; Physics 311, 317, 350, 354, 357, 360, 400A.

Additional Requirements for Subject Matter Preparation Certification

Satisfactory Grades. At most one course with a C- or lower among the courses listed under Preparation for the Major, and at most one course with a C- or lower among the courses listed under the Major. If a course is repeated, the highest grade will count.

Formative Assessment. Completion of a satisfactory, preliminary portfolio two semesters prior to graduation. Contact the subject matter preparation adviser for information.

Summative Assessment. Completion of a satisfactory, final portfolio, and a positive recommendation from a committee consisting of the instructor of Physics 357, the Department of Physics chair, and the subject matter preparation program adviser.

Minor in History of Science and Technology

No new students are being accepted. Contact the natural science program coordinator for information.

The minor in the history of science and technology consists of a minimum of 15 units to include Natural Science 315, 317; History 441; Mathematics 303; Philosophy 537*.

Courses in the minor may not be counted toward the major, but may be used to satisfy requirements for preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

* Prerequisites waived.

Courses (N SCI)

Refer to *Courses and Curricula and University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSE

N SCI 100. Physical Science (3) I, II

Conceptual approach to major issues in physics and chemistry, including principles of motion and energy and structure and properties of matter. Effects of physical science and technology on individual and human society.

UPPER DIVISION COURSES (Intended for Undergraduates)

N SCI 310. Science in Science Fiction (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Comparison of science portrayed in science fiction literature and mass media, with science as understood by practicing scientists, emphasizing theoretical frameworks such as relativity, quantum mechanics, and evolution, and how authors work within or against such frameworks.

N SCI 315. History of Science and Technology (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Ethical, moral, social, and cultural implications of significant issues and ideas in science and technology. History of development of these ideas from ancient Greek thinkers to contemporary scientists.

N SCI 317. Development of Scientific Thought (3)

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Basic scientific concepts and their historical development with emphasis on the problem of theory construction. The relationship between disciplined imagination and observational fact, as illustrated by selected case histories. Limitations of scientific inquiry.

N SCI 333. Technology and Human Values (3) II

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Development of technology from the Middle Ages to present. Ethical, moral, social, cultural, and organizational implications as to how societies acquire technology.

N SCI 412. Processes and Inquiry in the Physical Sciences (4)

Three lectures and two hours of activity.

Prerequisite: Completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

Investigation of processes of inquiry and rational thinking skills characteristic of the physical sciences. (Formerly numbered Natural Science 412A.)

UPPER DIVISION COURSE (Also Acceptable for Advanced Degrees)

N SCI 596. Special Topics in Natural Science (1-4) I, II, S

Prerequisite: Minimum ten units of natural science.

Selected topics in natural science for preservice and inservice elementary and secondary teachers and candidates for the M.A. in education. May be repeated with consent of instructor. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

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

Naval Science

OFFICE: Communication 130

TELEPHONE: 619-594-3730, 619-594-1135

FAX: 619-594-7848

FAX: 619-260-6821

In the College of Professional Studies and Fine Arts

Faculty

Chair: Turley

Professor: Turley

Associate Professor: Pittner

Assistant Professors: Arellano, Boccolucci, Brusca, Kessel, Reardon, Sinclair, Tranthien

Offered by the Department

Minor in naval science.

NROTC Curriculum

The naval science program provides college students desiring to become naval or marine corps reserve officers a basic professional background in the areas of leadership, ethics, and management; piloting and celestial navigation; nautical rules of the road; ship characteristics, design and propulsion; theory and employment of weapon systems; and development of warfare and amphibious operations. This curriculum is open to all university students. A graduate will be able to assume, through development of mind and character, the highest responsibilities of command, citizenship, and government.

The primary objectives of the Naval Science department curriculum are to provide:

1. An understanding of the fundamental concepts and principles of naval science;
2. A basic understanding of associated professional knowledge;
3. An appreciation of the requirements for national security;
4. A strong sense of personal integrity, honor and individual responsibility; and,
5. An educational background which will allow naval science students to undertake successfully, in later periods in their careers, advanced and continuing education in a field of application and interest to the Navy or Marine Corps.

Naval Science Minor

The minor in naval science consists of a minimum of fifteen units in naval science, 12 of which must be upper division.

Courses in the minor may not be counted toward the major, but may be used to satisfy requirements for preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (NAV S)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

NAV S 101. Introduction to Naval Science (2) I

Structure, principles, and practices; lines of command and control; logistical organizations; functions and services of major components of the Navy and Marine Corps; shipboard organization; ethics and basic leadership skills.

NAV S 102. Naval Ships Systems I (3) II

Ship characteristics and types including hull, electrical, auxiliary systems, stability and damage control. Operation advantages and disadvantages of steam, gas turbine, and diesel propulsion engines receive in-depth study. Leadership topics in an engineering setting.

NAV S 201A. Naval Leadership and Management I (3) I

Prerequisites: Naval Science 101 and 102.

Ethics and integrity, progressing through management theory and practical functions of management, culminating with module on leadership. Exposure to complex ethical, managerial, and leadership issues. (Formerly numbered Naval Science 401.)

NAV S 202. Sea Power and Maritime Affairs (3) II

Sea power and maritime affairs; general concept of sea power including Merchant Marine; role of naval warfare components used to support the Navy's mission; sea power as an instrument of national policy; comparative study of US and Soviet strategies.

UPPER DIVISION COURSES (Intended for Undergraduates)

NAV S 301. Navigation and Naval Operations I (3) I

Piloting, navigation, and maneuvering. Use of charts, visual and electronic aids, operation of magnetic and gyro compasses, relative-motion vector analysis, formation tactics, and ship employment. Other topics include tides, currents, wind and weather, navigation instruments and characteristics of electronic navigation.

NAV S 302. 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.

NAV S 310. Evolution of Strategic Operations (3) II

Forms of warfare through history to formulate sense of historical continuity in evolution of warfare, to develop a basic sense of strategy and alternative military actions, and to explore impact of historical precedent on military thought and actions.

NAV S 401A. Naval Ships Systems II (3) I

Prerequisite: Naval Science 302.

Develop working foundation and understanding of diversity and complexity of Navy and Marine Corps weapons systems including target detection and tracking, radar, sonar, electronic warfare systems, weapons warheads, fuzing, propulsion, guidance, launching, and fire control systems. (Formerly numbered Naval Science 201.)

NAV S 402. Naval Leadership and Management II (3) II

Prerequisite: Naval Science 201A.

Naval leadership and management with emphasis on military justice administration, naval personnel management, material management, and administration of discipline.

NAV S 410. Amphibious Operations (3) I

Amphibious warfare, doctrinal origins, and its evolution as an element of naval policy during the twentieth century.

Nursing

In the College of Health and Human Services

OFFICE: Hardy Tower 58
TELEPHONE: 619-594-5357
FAX: 619-594-2765
<http://nursing.sdsu.edu>

Agency Member of the American College of Nurse Midwives and the American Association of Colleges of Nursing. Accredited by the American College of Nurse Midwives, California Board of Registered Nursing, and the Commission on Collegiate Nursing Education.

Faculty

Emeritus: Broom, Dillon (Salerno), Flagg, Freitas, Gulino, Hines, Laiho, LaMonica, Lantz, Leslie, Lookinland, Loveridge, Moffett, Morris, Riegel, Shively, Thomas, Verderber, Wozniak

Director: Wahl

Associate Directors: Anderson, Saarmann

Professors: Blenner, Heineken, Wahl, Walker

Associate Professors: Anderson, Fitzsimmons, Hadley, Reed, Saarmann

Assistant Professors: Hunter, King, Smith, Suh, Sweeney

Lecturers: Bass, Bidwell, Blackford, Burns, Coffin-Romig, Esernia, Faron, Gaines, Gilbert, Hall, Hanscom, Herold, Jurf, Katzman, Kolhbry, Lamke, Lischke, Long, McCarthy, Miller, Ngo-Nguyen, Ottem, Parr, Preston, Reyno, Samad, Santarsiero, Tarver, Walsh, Yancey

Offered by the School

Master of Science degree in nursing.

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

Registered Nurse B.S., Major in Nursing Program.

School nurse services credential.

The Major

The nursing profession is concerned with the total health care of the individual and the family. It is a profession which believes in the prevention of illness, caring for those who are acutely ill, and helping people with long-term rehabilitative problems to live in the healthiest way possible. Nursing is both a science and an art. It has its foundation in biophysical and behavioral humanistic sciences, as well as in specific nursing practice skills and techniques.

Students in the nursing program are provided opportunities to acquire knowledge from the natural and social sciences; to develop critical thinking and professional decision-making abilities; to utilize current research in the application of the nursing process; to develop leadership potential and accountability in professional practice; to become aware of the emerging roles of the professional nurse and of the social forces and trends affecting health and health care systems; and to learn to balance professional and personal growth and values.

Nurses are in demand throughout the country and are needed in such settings as acute care hospitals, community health agencies, homes, jails, outreach programs, public schools, health maintenance organizations, and clinics which serve underprivileged, minority, and rural populations. Career opportunities are particularly good for minority, bilingual/bicultural persons.

Impacted Program

The nursing major is an impacted program. To be admitted to the nursing major, students must meet the following criteria:

- a. First-time freshmen must have completed one year of high school college preparatory courses in advanced algebra, biology, and chemistry with laboratory. Transfer students must have completed the same requirements or equivalent college-level courses;

- b. Complete with a minimum GPA of 2.50: organic chemistry (1 semester), introductory sociology, introductory psychology, oral communication (Communication 103), general biology, human anatomy with laboratory, and microbiology (1 semester with laboratory) (anatomy and microbiology must total 7 semester units with a minimum grade of B- in each course). These courses cannot be taken for credit/no credit (Cr/NC);
- c. Show evidence of volunteer and health care experience, bilingual ability, and leadership/achievement in school or community organizations;
- d. For fall admission, submit the nursing supplemental application by November 30;
- e. For spring admission, submit the nursing supplemental application by August 31.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Standards for Admission

Admission to the University

Applicants must be eligible for admission to the University. See "Regulations: Admission and Registration" section of this catalog. Students accepted as nursing majors are subject to further screening to determine their eligibility to be admitted into the professional coursework.

Admission to the Professional Program in Nursing

1. **Prerequisite Courses.** The following courses, or their equivalents, and course grades are required for admission to the nursing program:
 - a. Course grade requirement (C- or better) in each of these required university courses: Biology 100, Chemistry 130*, Communication 103, Psychology 101, and Sociology 101.
 - b. Course grade requirement (B- or better) in each of these required university courses: Biology 210 and 212.

*It is recommended that students with limited chemistry background take Chemistry 100 before Chemistry 130.

2. **Minimum Grade Point Average.** Applicants must complete the seven prerequisite courses with a minimum overall grade point average of 2.5.
3. **Mathematics and Writing Competency Requirements.** Prior to admission to the School of Nursing, all students must satisfy the SDSU mathematics and writing competency requirements.
4. **Additional Point System.** Applicants requesting admission to the professional coursework will be ranked and evaluated on the basis of a point system. A maximum of 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 and on the School of Nursing Web site <http://nursing.sdsu.edu>. Consult the School of Nursing Web site for the deadline date and any updated information.

Special Instructions

- 1. Impacted Program.** The nursing major is designated as an impacted program and specific regulations related to admissions are imposed.
- 2. Full-Time/Part-Time Study.** Students are encouraged to enroll in all of the nursing courses scheduled each semester. However, part-time enrollment can be arranged by contacting the undergraduate adviser within the school.
- 3. Liability Insurance and Transportation.** Students enrolled in the nursing program are required to provide their own professional liability insurance and transportation to off-campus clinical agencies and for home visits.
- 4. Honors Program.** The honors program is available to students in the senior level who meet the criteria. Four units of honors courses constitute the honors program and will be validated as such on the official transcript. Less than four units completed will not be validated as "honors," but may be credited as a special studies program.
- 5. Health Insurance.** All students are advised to obtain health insurance coverage. Students are responsible for health care cost when services are rendered by a health care agency.
- 6. CPR Certification.** Students are required to be certified prior to admission. American Heart Association (AHA) certification, health care provider course or American Red Cross (ARC) Professional Rescue is required. (Both Level C.) Certification must be maintained throughout the program.
- 7. Licensure.** Students should request consultation with the undergraduate adviser regarding problems of license by endorsement with other states if the R.N. license examination is taken prior to degree completion.
- 8. Malpractice Insurance.** Upon admission to the nursing program, students must purchase professional liability insurance (\$1 million to \$3 million). Students must maintain insurance throughout the program.
- Upon admission to the nursing program, students are required to have a physical examination and bring proof of the examination and required immunizations to Student Health Services.

10. Option Open to L.V.N.'s for eligibility to the R.N. license examination. THIS OPTION HAS NO RELATION TO DEGREE REQUIREMENTS AND DEGREE COMPLETION.

Course Requirements

	Units
BIOL 210 Fundamentals of Microbiology	4
BIOL 261 Human Physiology	4
NURS 254 Nurse-Client Relationships	3
NURS 304 Clinical Pharmacology in Nursing Practice	3
*# NURS 308 Adult Health Nursing	6
# NURS 314 Gerontological Nursing	3
*# NURS 416 Psychiatric-Mental Health Nursing	5
NURS 460 Professional Development	2
Total	30

* Includes management/evaluation of patient care.

Includes geriatric nursing.

General Education Requirements

Students will complete a minimum of 49 units in General Education to include a minimum of nine upper division units. No more than 12 units may be used for General Education credit from any one department or academic unit.

I. Communication and Critical Thinking: 9 units

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

1. Oral Communication: Communication 103 (3 units)
2. Composition (3 units)
3. Intermediate Composition and Critical Thinking (3 units)

II. Foundations: 28 units

A. Natural Sciences and Quantitative Reasoning (10 units)

1. Physical Sciences (3 units) to be satisfied by:
Chemistry 130 (3 units)

2. Life Sciences (3 units) to be satisfied by:
Biology 100 (3 units)

3. Laboratory (1 unit) to be satisfied by:
Biology 210

or
Biology 212
or
Biology 261

4. Mathematics/Quantitative Reasoning (3 units) You may **not** use Credit/No Credit grades.

B. Social and Behavioral Sciences (6 units) to be satisfied by:

Psychology 101 (3 units)
Sociology 101 (3 units)

C. Humanities (12 units)

Refer to General Education course offerings in the Graduation Requirements section of the catalog.

III. American Institutions: Three units of the six units of coursework which meet the American Institutions graduation requirement may be used in General Education, excluding courses numbered 500 and above.

IV. Explorations: Courses in this area must not be taken sooner than the semester in which you achieve upper division standing (60 units passed). Upper division courses in the major department may not be used to satisfy General Education. Nine units to include Psychology 351 and six upper division units in Humanities **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

<i>First Semester</i>	<i>Units</i>	<i>Second Semester</i>	<i>Units</i>
Biology 100.....	3	Biology 210	4
Chemistry 130	3	Biology 212	4
Sociology 101	3	Psychology 101	3
G.E. (Communication 103)	3	G.E. (Written Communication)	3
G.E. (Written Communication)	3	General Education	3
	15		17

Second Year

<i>First Semester</i>	<i>Units</i>	<i>Second Semester</i>	<i>Units</i>
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.....	3
	16	GE (Statistics)	3
			17

Third Year

<i>First Semester</i>	<i>Units</i>	<i>Second Semester</i>	<i>Units</i>
Psychology 351	3	Nursing 307	3
Nursing 304	3	Nursing 354	5
Nursing 308	6	Nursing 356	5
Nursing 314	3	General Education	3
	15		16

Fourth Year

<i>First Semester</i>	<i>Units</i>	<i>Second Semester</i>	<i>Units</i>
Nursing 414	6	Nursing 458	5
Nursing 416	5	Nursing 460	2
General Education	6	Nursing 452 or 454.....	5
	17	American Institutions	3
			15

Nursing Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 12031)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Nursing majors are eligible to take the State Board Registered Nurse license examination after completing seven semesters of the prescribed curriculum. Graduates are eligible to apply for the California Certificate of Public Health Nursing.

Nursing majors may be part-time students in the curriculum. Consultation with the undergraduate adviser is mandatory.

Preparation for the Major*. Upon acceptance into the program, Nursing 202, 206, 252, 254; Biology 261; three units in statistics should be selected from General Education requirements in Foundations II.A., Mathematics/Quantitative Reasoning; and three units in growth and development or Psychology 230. (27 units)

NOTE: A grade of C (2.0) or better is *required* in all nursing courses except Nursing 453 which, as an elective is exempt from this requirement. No nursing course may be repeated more than once. A grade of C (2.0) or better or Cr is required in corequisite courses. (Biology 261, Psychology 351, growth and development, and statistics).

Biology 261 is a prerequisite to beginning second semester nursing courses. Psychology 351 is also required prior to the fifth semester in the nursing program.

Progress in the nursing program is dependent upon completion of nursing courses in the prescribed sequence as outlined above. Students will not be permitted to progress to the next semester until nursing courses are completed from the previous semester.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 48 upper division units in nursing to include Nursing 304, 307, 308, 314, 354, 356, 414, 416, 458, 460; and 452 or 454.

* Prerequisite courses needed for admission to the nursing program include: general biology, human anatomy with laboratory, microbiology with laboratory, organic chemistry, introductory sociology, introductory psychology, and oral communication (Communication 103).

School Nurse Services Credential

(Credential Code: 00600)

San Diego State University offers curricula leading to the School Nurse Services Credential. This authorizes the holder to serve as a School Nurse. For information concerning the credential, the student is referred to the School of Nursing office, HT-58, or the School of Nursing Web site.

The School Nurse Services Credential has been approved by the Commission on Teacher Credentialing.

All applicants seeking admission to the School Nurse Services Credential program **must be admitted to the university and accepted as a classified postbaccalaureate student.**

Standards for Admission

1. Baccalaureate degree in nursing or related field (including community health nursing).
2. Current California Registered Nurse License.
3. Required admission and planning interview with program adviser.
4. Have a minimum cumulative grade point average of 3.0 on a 4.0 scale in undergraduate upper division courses.
5. One year experience as a registered nurse within five years of application.
6. Undergraduate community health nursing course.

Program

The following program elements are required of all school nurse credential candidates: (31 units)

	Units
NURS 500 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
SLHS 540 Hearing Conservation and Audiometry for School Nurses	3
SPED 500 Human Exceptionality	3
Electives: Three units to be selected with approval of adviser.	

Courses (NURS)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

NURS 101. Introduction to Nursing (3) Cr/NC I, II

Nursing from a historical, current, and future perspective. Philosophy and science of nursing, nursing specialties, and academic preparation for professional nursing practice. Not required for the major.

NURS 202. Client Assessment (4) I, II

Two lectures and six hours of laboratory.

Prerequisites: Admission to nursing program and concurrent registration in Nursing 206 and Biology 261.

Determining and measuring variables relevant to assessment of psychosocial and physical functioning.

NURS 206. Nursing Practice I (5) I, II

Three lectures and six hours of laboratory.

Prerequisites: Admission to nursing program and concurrent registration in Nursing 202 and Biology 261.

Basic nursing skills and integration of diagnosis, planning, and implementation of nursing care. Application of nursing process.

NURS 252. Nursing Practice II (5) I, II

Three lectures and six hours of laboratory.

Prerequisites: Nursing 202, 206, Biology 261, and concurrent registration in Nursing 254.

Focus on psychological, social and biological stressors affecting man's health status and the modalities of nursing intervention which promote health. Emphasis on developmental and situational stressors commonly experienced in modern society and man's adaptive and maladaptive behavioral and biological responses from adulthood through senescence.

NURS 254. Nurse-Client Relationships: Cultural and Mental Health Concepts (3) I, II

Prerequisites: Nursing 202 and 206; concurrent registration in Nursing 252.

Nurse-client communication and application to clinical nursing practice. Origins of a variety of communication styles. Cultural and mental health concepts related to communication.

UPPER DIVISION COURSES (Intended for Undergraduates)

NURS 304. Clinical Pharmacology in Nursing Practice (3) I, II

Prerequisites: Nursing 252, 254; concurrent registration in Nursing 308, 314.

Major classifications of drugs; pharmacological and toxicological activity; clinical applications. Role of nurse in assessment, intervention, and patient education. (Formerly numbered Nursing 456.)

NURS 307. Nursing Research (3) I, II

Prerequisites: Nursing 304, 308, 314; concurrent registration in Nursing 354 and 356.

Nursing research process. Emphasis on identification of researchable questions and beginning critiquing ability.

NURS 308. Adult Health Nursing (6) I, II

Three lectures and nine hours of laboratory.

Prerequisites: Nursing 252, 254; concurrent registration in Nursing 304 and 314.

Application of theories of stressors and/or biological responses specifically affecting the adult on the health-illness continuum. Laboratory focuses on the application of the nursing process in implementing preventive, supportive, and restorative therapeutic modalities which assist the adult client to reestablish, maintain, or develop new adaptive responses.

NURS 312. Concepts in Professional Nursing (3) I, II

Prerequisite: Admission to the RN to BS program.

Concepts in professional nursing. Differentiation of professional practice with emphasis on stress theory, therapeutic communication, values clarification, and legal aspects. Not open to generic students.

NURS 314. Gerontological Nursing (3) I, II

Two lectures and three hours of laboratory.

Prerequisites: Nursing 252, 254; concurrent registration in Nursing 304 and 308.

Theory and selected laboratory experience focusing on stressors affecting elderly on health-illness continuum. Gerontologic nursing in a variety of settings.

NURS 350. Women's Health Across the Lifespan (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.A. Natural Sciences and Quantitative Reasoning.

Explores health issues women face across their lives. Focus on developing knowledgeable users of research on causes of and risk factors for health problems. Not applicable to nursing majors.

NURS 354. Nursing Care of the Childbearing Family (5) I, II

Two lectures and nine hours of laboratory.

Prerequisites: Nursing 304, 308, 314; concurrent registration in Nursing 307 and 356.

Family-centered focus encompassing adaptive and maladaptive responses to stressors in the maternity cycle and their effect on the neonate. Clinical laboratory focuses on the application of nursing theory and process in providing preventive, supportive and restorative care to mothers and neonates.

NURS 356. Parent-Child Nursing (5) I, II

Two lectures and nine hours of laboratory.

Prerequisites: Nursing 304, 308, 314; concurrent registration in Nursing 307 and 354.

Stressors affecting the child on health-illness continuum. Nursing theory and laboratory focuses on application of nursing process in providing preventive, supportive and restorative therapeutic modalities in a variety of settings. Emphasis on the child in the family and the necessary intervention to promote adaptation of the child to attain, maintain or regain an optimum level of health.

NURS 414. Community Health Nursing (6) I, II

Three lectures and nine hours of laboratory.

Prerequisites: Nursing 307, 354, 356; concurrent registration in Nursing 416.

Assessment and utilization of community health care concepts and delivery with emphasis on promotion of health, prevention of illness and individual and group teaching techniques. Consideration given to cultural aspects of health care.

NURS 416. Psychiatric-Mental Health Nursing (5) I, II

Three lectures and six hours of laboratory.

Prerequisites: Nursing 307, 354, 356; concurrent registration in Nursing 414.

Theory and clinical laboratory in application of nursing process to care of clients evidencing maladaptive responses to psychosocial stressors. Presentation of theories describing and explaining maladaptive behaviors and application of nursing interventions in a variety of treatment modalities.

NURS 452. Basic Concepts in Critical Care Nursing (5) I, II

Three lectures and six hours of laboratory.

Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 453, 458, and 460.

Theory and selected laboratory experience in care of clients with complex health problems requiring intensive nursing care. Consideration given to student's preference for specific clinical area of concentration.

NURS 453. Basic EKG Monitoring (1) Cr/NC I, II

Prerequisite recommended: Concurrent registration in Nursing 452.

Basic electrophysiological and interpretive concepts necessary for identification and management of supraventricular and ventricular rhythms.

NURS 454. Primary Health Care Nursing (5) I, II

Three lectures and six hours of laboratory.

Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 458 and 460.

Theory and selected laboratory experiences in primary health care settings. Implementation of expanded role of professional nurse in primary care. Major primary care health problems. Health monitoring, continuity of care, epidemiological concepts, risk appraisal, health teaching, counseling, motivation.

NURS 458. Nursing Management and Leadership (5) I, II

Three lectures and six hours of laboratory.

Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 460 and Nursing 452 or 454.

Theories and functions of nursing management and leadership within health care system. Economics of health care.

NURS 460. Professional Development (2) I, II

Prerequisites: Nursing 414 and 416; concurrent registration in Nursing 458 and Nursing 452 or 454.

Preparation for professional role in nursing. Emphasis in socioeconomic, political, and legal aspects of nursing. Discussions of advocacy, ethics, and current issues.

NURS 496. Experimental Topics (1-4) I, II

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

NURS 498. Cooperative Education Supervised Practice (2-6) Cr/NC I, II, S

Seminar: Two hours biweekly. Clinical hours arranged by student and employer.

Prerequisite: Nursing 308.

Supervised practice in application of previously learned knowledge and skills in selected clinical agencies. Professional interaction with other health care workers to strengthen professional nursing identity. Work under supervision of registered nurse preceptor and faculty coordinator. May be repeated. Maximum credit two units applicable to a bachelor's degree.

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

Prerequisites: Nursing 308 and consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

NURS 500. Advanced Health Assessment and Health Promotion (4) I

Three lectures and three hours of laboratory.

Prerequisite: Consent of graduate or credential adviser.

Physical and psychosocial assessment techniques, health promotion strategies for select populations.

NURS 596. Special Topics in Nursing (1-3)

Prerequisites: Completion of 30 upper division units in nursing or graduate status; 3.0 grade point average.

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

GRADUATE COURSES Refer to *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, Cooke, Dickerson, Gunning, Josephson, Stout
Interim Chair: Aufsesser
Professor: Spindler
Associate Professors: Beshgetoor, Kern
Assistant Professor: Misra
Lecturers: Mosier, 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. To be admitted to the foods and nutrition major, students must meet the following criteria:

- Complete the following courses (or their equivalents): Nutrition 101, 203, 204, 205; Accountancy 230; Biology 100, 100L, 210; Chemistry 100, 130, 160; Economics 201 (or Statistics 250); Psychology 101; Sociology 101. A grade of C or higher must be earned in Nutrition 101, Chemistry 100 and 130. These courses cannot be taken for credit/no credit (Cr/NC);
- Have a cumulative GPA of 2.40 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Foods and Nutrition Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 13061)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Nutrition 101, 203, 204, 205; Accountancy 230; Biology 100, 100L, 210; Chemistry 100, 130, 160; Economics 201 (or Statistics 250); Psychology 101; Sociology 101. (42 units)

These prerequisite courses may not be taken Cr/NC. A grade of C or higher must be earned in Nutrition 101, Chemistry 100 and 130.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 40 upper division units to include Nutrition 301, 302, 302L, 303, 303L, 304, 404, 405, 406; Biology 336; Exercise and Nutritional Sciences 304, 304L; the remaining nine units selected with the approval of adviser from Nutrition 309, 388, 407, 488, 499, 510; Biology 321; Chemistry 361, 567; Community Health Education 470; and Management 350 and 352 or Psychology 319. Biology 336 will also satisfy three units of the General Education requirement in Explorations IV.A. Natural Sciences.

Courses (NUTR)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

NUTR 101. Professional Issues: Foods and Nutrition (1) I, II

Prerequisite: Rhetoric and Writing Studies 100.

Philosophical basis of foods and nutrition and relations of its specialties to the field as a whole.

NUTR 107. Nutrition Today (3) I, II

Obtaining nutritional needs from a varied food supply.

Not open to foods and nutrition majors or students with credit in Nutrition 204.

NUTR 202. Nutrition for Athletes (3)

Prerequisite recommended: Nutrition 107.

Review of basic diet which will provide nutritional adequacy. Analysis of current theories and practices related to nutrition and athletic performance.

NUTR 203. Cultural Aspects of Food and Nutrition (3)

Prerequisite: Completion of a General Education course in 1.) Communication and Critical Thinking, 2.) Composition, or 3.) Intermediate Composition and Critical Thinking.

Food habits and health beliefs about foods and nutrition. Regional and ethnic influences.

NUTR 204. Fundamentals of Nutrition (3) I, II

Prerequisites: Biology 100, 100L; Chemistry 100 and 130 (or concurrent registration in Chemistry 231). **Proof of completion of prerequisites required:** Copy of transcript.

Nutrition as applied to the stages of the normal life cycle.

NUTR 205. Food Preparation (5) I, II

Three lectures and six hours of laboratory.

Prerequisites: Grade of C or better in Nutrition 101 and Chemistry 100 and 130 (or concurrent registration in Chemistry 231). **Proof of completion of prerequisites required:** Copy of transcript.

Composition, preparation, preservation, sensory and consumer evaluation of foods.

NUTR 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

NUTR 301. Science of Foods (3) I, II

Prerequisites: Nutrition 205 and Biology 210. **Proof of completion of prerequisites required:** Copy of transcript.

Physical, chemical, nutritional, and functional properties and quality attributes of foods and food additives; food handling, changes and interactions of food components induced by processing and storage; food laws, regulations, legislation, and food safety issues.

NUTR 302. Advanced Nutrition (3) I, II

Prerequisites: Nutrition 204, Biology 336, and one course in biochemistry. Concurrent registration in Nutrition 302L. **Proof of completion of prerequisites required:** Copy of transcript.

Integration of cellular, physiological, and biochemical relationships with human nutrient requirements.

NUTR 302L. Advanced Nutrition Laboratory (2) I, II

Six hours of laboratory.

Prerequisites: Nutrition 204, Biology 336, and one course in biochemistry. Concurrent registration in Nutrition 302. **Proof of completion of prerequisites required:** Copy of transcript.

Application and evaluation of techniques used to assess nutritional status, including basic methods, experimental animal and human studies.

NUTR 303. Quantity Food Production (2) I, II

Prerequisites: Nutrition 205 or Information and Decision Systems 302. Concurrent registration in Nutrition 303L.

Quantity food production service delivery systems. Skills for food safety, recipe standardization, menu planning, purchasing, production operations, and quality standards. Intended for majors in foods and nutrition and hospitality and tourism management.

NUTR 303L. Quantity Food Production (1)

Three hours of laboratory.

Prerequisites: Nutrition 205 or Information and Decision Systems 302. Concurrent registration in Nutrition 303.

Practical applications of quantity food production systems and methods with emphasis on food safety (HACCP), menu planning, purchasing, facilities and equipment, and food quality. Intended for majors in foods and nutrition and hospitality and tourism management.

NUTR 304. Nutrition Throughout the Life Span (3)

Prerequisite: Nutrition 204.

Factors affecting nutrient needs and ways to meet nutrient requirements across the life span. Not open to students with credit in Nutrition 208.

NUTR 309. Eating Disorders and Weight Control (2) Cr/NC I, II

Prerequisite: Upper division standing in foods and nutrition or kinesiology or other majors with consent of instructor.

Obesity and other eating disorders. Review of etiology, incidence, socioeconomic influences, pathogenesis and treatments. Treatment techniques practiced include modification of diet, activity and behavior. Of interest to those wishing to do weight control counseling.

NUTR 311. Nutrition for Health and Fitness (3) I, II

Prerequisites: Biology 100, 212, and Chemistry 100.

Food choices for health contrasted with food fads and eating problems. Nutrition labeling, metabolic roles of nutrients, nutrient needs related to exercise and stage of life, professional and legal concerns with dietetics for allied health fields. May not be used toward a degree in foods and nutrition.

NUTR 388. Dietetic Practice I (1)

Prerequisites: Admission to SDSU Didactic Program in Dietetics, Nutrition 204, 205, and consent of instructor.

Practical experience in food service and medical nutritional therapy for future dietitians.

NUTR 398. Supervised Field Experience (1-3)

Three hours per week for 15 weeks per unit of course credit.

Prerequisite: Upper division standing required; limited to foods and nutrition majors.

Supervised practical experience in areas of food and nutrition. Maximum credit six units.

NUTR 404. Food Systems Management (3) I, II

Prerequisites: Nutrition 303 and 303L.

Managerial functions in food service systems.

NUTR 405. Experimental Food Science (3) I, II

One lecture and six hours of laboratory.

Prerequisite: Nutrition 301. **Proof of completion of prerequisite required:** Copy of transcript.

Application of principles and methods of physical and sensory evaluation and food component analysis to conventional and fabricated foods; effects of additives and ingredient variations; project studies; data interpretation and report writing.

NUTR 406. Diet Therapy (4) I, II

Prerequisites: Nutrition 302 and 302L. **Proof of completion of prerequisites required:** Copy of transcript.

Dietary management of pathological and debilitating diseases.

NUTR 407. Medical Nutrition Therapy Laboratory (1)

Three hours of laboratory.

Prerequisites: Admission to SDSU Didactic Program in Dietetics, Nutrition 302, 302L, and concurrent registration in Nutrition 406.

Required for Didactic Program in Dietetics competencies established by the American Dietetic Association. Builds multi-level skills for dietetic practice to assess nutritional status and to develop care plans for patients.

NUTR 488. Dietetic Practice II (1)

Prerequisites: Admission to SDSU Didactic Program in Dietetics, Nutrition 302, 302L, 303, 303L, 388, and consent of instructor.

Advanced practical experience in food service and medical nutritional therapy for future dietitians.

NUTR 496. Experimental Topics (1-4) I, II

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

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

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

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

NUTR 510. Nutrition and Community Health (3) I, II

Two lectures and three hours of activity.

Prerequisites: Grade of C or better in Nutrition 302, 302L, Nutrition 203, 304, and consent of instructor.

Nutritional problems in the community with consideration of their resolution. Field placement experience required.

NUTR 596. Advanced Studies in Nutrition (1-6)

Prerequisite: Nine upper division units in nutrition.

Advanced study of selected topics. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of nine units of 596. No more than six units of 596 may be applied to either the bachelor's or master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to Bulletin of the Graduate Division.



Oceanography

Administered by the
Department of Geological Sciences

OFFICE: Geology/Mathematics/Computer Science 237
TELEPHONE: 619-594-5586

San Diego State University provides preparation for ocean-oriented careers by offering marine-related coursework and oceanographic experience within regular degree programs in the Departments of Biology, Chemistry and Biochemistry, Economics, Civil and Environmental Engineering, Geography, Geological Sciences, Mechanical Engineering, and Physics. Master's degrees with specialization in marine problems may also be earned in these departments. The Ph.D. degree is offered in biology, chemistry, and ecology, jointly with the University of California. Degrees in general oceanography or marine studies are not offered by the university. The Coastal and Marine Institute coordinates work in the area of marine studies and provides special supporting services to the faculty, staff and students, including student advising, assistance in research and publication, operation of the university's marine laboratory at San Diego Bay, and a boat operations program.

Courses in general oceanography are offered by faculty from the Departments of Biology and Geological Sciences. Advanced coursework and research in geological and physical oceanography are conducted in the Geological Sciences Department. An option in marine geology is offered as part of the undergraduate major in geological sciences. Advanced courses and research in biological oceanography, marine biology, marine botany, and marine zoology are conducted in the Department of Biology. Similar marine-related coursework and research are offered in the Departments of Economics and Geography and in the College of Engineering. Students who require advising in these areas should inquire at one of the departments listed above or the Coastal and Marine Institute. (See section of this catalog on Colleges, College of Sciences Research Centers and Institutes.)

Oceanography Minor

Offered for undergraduate science students by the Department of Geological Sciences, the minor in oceanography consists of a minimum of 16 upper division units to include Biology 515 or 517; Geological Sciences 540, 545; 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)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSE

OCEAN 100. The Ocean Planet (4)

Three lectures and three hours of laboratory.

Physical, chemical, geological, and biological foundations of the global ocean system, with emphasis on science as a process and its role in environmental issues from global climate change to local pollution.

UPPER DIVISION COURSES (Intended for Undergraduates)

OCEAN 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.

OCEAN 306. Scientific Scuba Diving for Certified Divers (3)

Two lectures and three hours of laboratory.

Prerequisites: Oceanography 305 and Advanced or Scientific Diving Certification, diving skills proficiency evaluation, acceptable openwater diving equipment, physical examination approval for scuba diving, waiver for scuba diving.

Scientific diving operations, techniques and procedures; dive planning and lead diver responsibilities; underwater work, mapping, search and salvage, navigation, deep, night and small boat diving; emergency procedures and rescue. Physics, physiology, medicine, decompression theory, oceanography, marine life and marine environment. Master Diver Certification. Not open to students with credit in Exercise and Nutritional Sciences 324.

OCEAN 320. The Oceans (3) I, II

Prerequisites: One introductory college course in a life science and one in a physical science, and completion of the General Education requirement in Foundations II.A., Natural Sciences and Quantitative Reasoning.

The ocean system, its influence on life, climate, the earth, and humankind.

OCEAN 496. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

OCEAN 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.

For additional courses in Marine Studies see:

Biology 515. Marine Invertebrate Biology
Biology 517. Marine Ecology
Biology 520. Ichthyology
Economics 454. Economics of the Ocean
Geography 504. Coastal and Submarine Physiography
Geography 588. Intermediate Remote Sensing of Environment
Geological Sciences 540. Marine Geology
Geological Sciences 545. Descriptive Physical Oceanography

Persian

In the Department of Linguistics and Oriental Languages
In the College of Arts and Letters

OFFICE: Business Administration 327
TELEPHONE: 619-594-5268
FAX: 619-594-4877
<http://www-rohan.sdsu.edu/dept/linguist/index.html>

Faculty

Chair: Kaplan

Offered by the Department of Linguistics and Oriental Languages

Courses in Persian.

High School Equivalents

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

Secondary school language courses can be used as follows:

1. The first *two years* of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first *three years* of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

Courses (PERS)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

No credit will be given for Persian 101 and 102 taken out of sequence.

LOWER DIVISION COURSES

Native speakers of Persian will not receive credit for taking lower division courses in Persian except with advance approval from the department.

PERS 101. Elementary Modern Persian I (4)

Introduction to modern Persian and Persian writing system. Development of speaking, listening, and reading skills using multimedia materials. Vocabulary for everyday topics and develop culturally appropriate discourse strategies for everyday situations. Not open to students who have completed three years of high school Persian unless the third course was completed five or more years ago. Not open to students with credit in Persian 102.

PERS 102. Elementary Modern Persian II (4)

Prerequisite: Persian 101 or two years of high school Persian.

Continuation of Persian 101. Development of speaking, listening, and reading skills using multimedia materials. Vocabulary for everyday topics and develop culturally appropriate discourse strategies for everyday situations. Not open to students who have completed four years of high school Persian unless the fourth course was completed five or more years ago.

PERS 296. Experimental Topics (1-4)

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

Philosophy

In the College of Arts and Letters

OFFICE: Adams Humanities 4142
TELEPHONE: 619-594-5263

Faculty

Emeritus: Feenberg, Friedman, Nelson, O'Reilly, Rosenstein, Shields, Snyder, Troxell, Warren, Weissman

Chair: Barbone

Professors: Corlett, Weber, Weston

Associate Professors: Barbone, Chaffin, Francescotti, Moellendorf, Wheeler

Lecturers: Anderson, Freeman, Peñafuerte, Reyes, Schlesinger

Offered by the Department

Master of Arts degree in philosophy.

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

Minor in philosophy.

The Major

The philosophy major explores and seeks to understand values and the nature of reality. Through the study of philosophy, questions are asked about existence and experience: What is truth? What is morally right? What kind of life is best? What kind of society? Is there an ultimate reality? Philosophy studies the types of questions that most other subject areas are unable to address fully.

There are three different ways these questions are characteristically investigated in the philosophy major at San Diego State University. They are approached historically, by studying the history of philosophy from the ancient Greeks to the present; analytically, by carefully examining the meanings and interrelationships of ideas; and critically, by training students in the art of evaluating various claims and the arguments for and against them.

While the analytical and critical approach are part of every course in philosophy, the philosophy curriculum at San Diego State University emphasizes the historical approach. The aim is to provide the philosophy major with a thorough grounding in the development of philosophy so that the student is well prepared to participate in the discussion of contemporary issues.

The education of a philosophy major, along with providing the satisfaction of dealing with fundamental issues which have concerned serious thinkers for many centuries, also provides the student with skills that may be used in a variety of careers. Some students begin graduate work after their B.A., either in philosophy, with the expectation of teaching or writing in the field, or in law, education, or other professional programs. Some enter new fields of research, working on computer problems or artificial intelligence. Other students find that the special skills they have developed as philosophy majors - the ability to read complex material with comprehension, to analyze problems, to find relevant sources, to evaluate evidence, to propose solutions and to examine them self-critically, and to report the results of their inquiries with clarity and coherence - are valued by employers in many different fields. Such students may find career opportunities in government, industry, finance, and social services.

Advising

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

Philosophy Major

**With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 15091)**

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

A minor is not required with this major.

Preparation for the Major. Six lower division units in philosophy to include Philosophy 110 or 120. Philosophy 120 is preferred as preparation for Philosophy 521.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units in philosophy to include Philosophy 521; at least nine units selected from Philosophy 411, 412, 413, 414; and no more than six units of 300-level courses. During the last semester, all seniors shall submit to the department a portfolio of their scholarly work in philosophy.

Philosophy Minor

The minor in philosophy consists of 24 units in philosophy: Six lower division units to include Philosophy 110 or 120, and 18 upper division units to include no more than six units of 300-level courses.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (PHIL)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

**PHIL 101. Introduction to Philosophy: Ethics (3) I, II
(CAN PHIL 4)**

Philosophical inquiry, with emphasis on problems of moral value. Students are encouraged to think independently and formulate their own tentative conclusions concerning a variety of vital contemporary issues facing individuals and society.

PHIL 102. Introduction to Philosophy: Knowledge and Reality (3) I, II

Introduction to philosophical inquiry with emphasis on problems of knowledge and reality. Students are encouraged to think independently and formulate their own tentative conclusions.

PHIL 103. Historical Introduction to Philosophy (3)

Introduction to philosophical inquiry through study of the works of major philosophers in their historical contexts.

PHIL 110. Critical Thinking and Composition (3) I, II

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.

PHIL 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.

PHIL 296. Experimental Topics (1-4)

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

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

Students taking 300-level courses for the major will be required to do extra work to be arranged with the instructor.

PHIL 305. Classics of Western Philosophy (3)

Prerequisites: Upper division standing, and completion of the General Education requirement in Foundations II.C., Humanities.

Analysis of major texts selected from diverse historical periods in western philosophy. Texts will illustrate different world views (e.g., Platonism, Stoicism, Skepticism) and their relationship to other disciplines and to present world views.

PHIL 310. Philosophy and Human Nature (3)

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

Concept of human nature. Descriptive and normative aspects of major theories of human nature.

PHIL 329. Social Ethics (3)

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

Ethical issues of contemporary life. Individualism vs. collectivism; democracy vs. dictatorship; ethical problems arising in law, medicine, business, government and interpersonal relationships.

PHIL 330. Medical Ethics (3)

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

Value judgments upon which medicine is based and the ethical issues which medicine faces.

PHIL 332. Environmental Ethics (3)

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

Development of traditional values concerning the natural environment. Reasons for altering values in light of modern changes in relationship of human beings to the environment. Application of ethical principles to actions affecting the environment.

PHIL 333. Philosophy of Technology (3)

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

Nature of technology. Ethical aspects of social, political, and environmental problems associated with rapid development of technology over the last century. Responses to these problems by contemporary philosophers.

PHIL 334. Philosophy and Literature (3)

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

Study of literature of philosophical significance and of philosophical problems of literature.

PHIL 351. Chinese Philosophy (3)

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.

PHIL 411. Ancient Western Philosophy (3)

Prerequisite: Three units in philosophy.

Ancient western philosophy through the third century A.D.

PHIL 412. Medieval Philosophy (3)

Prerequisite: Three units in philosophy.

European, Arabic, and Jewish philosophies from the fourth to the fifteenth centuries.

PHIL 413. Renaissance and Early Modern Philosophy (3)

Prerequisite: Three units in philosophy.

European philosophy from the sixteenth to eighteenth centuries.

PHIL 414. Nineteenth Century European Philosophy (3)

Prerequisite: Three units in philosophy.

European philosophy in the nineteenth century.

PHIL 496. Experimental Topics (1-4)

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

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

Prerequisites: Six upper division units in philosophy and prior arrangements with a supervising instructor.

Individual study. Maximum credit six units.

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

PHIL 506. Twentieth Century Continental Philosophy (3)

Prerequisite: Six upper division units in philosophy.

Major figures and movements in European philosophy from Husserl to the present.

PHIL 507. Twentieth Century Anglo-American Philosophy (3)

Prerequisite: Six upper division units in philosophy.

Major movements, issues, or figures of twentieth century Anglo-American philosophy. Course may be repeated with new content. Maximum credit six units.

PHIL 508. Existentialism (3)

Prerequisite: Six units in philosophy.

The philosophical aspects of existentialism. Major emphasis is on the diversity of thought within a common approach as this is shown in individual thinkers.

PHIL 510. Philosophy of Law (3)

Prerequisites: Three units from Philosophy 101, 102, or 103; and three units from philosophy or political science.

Philosophical and ethical investigation into nature of law, rights, liberty, responsibility, and punishment.

PHIL 512. Political Philosophy (3)

Prerequisite: Philosophy 101, 102 or 103.

Selected aspects of the political structures within which we live, such as law, power, sovereignty, justice, liberty, welfare.

PHIL 521. Deductive Logic (3) II

Prerequisite: Philosophy 110 or 120. Recommended: Philosophy 120.

Principles of inference for symbolic deductive systems; connectives, quantifiers, relations and sets. Interpretations of deductive systems in mathematics, science and ordinary language. Not open to students with credit in Mathematics 523.

PHIL 523. Theory of Knowledge (3)

Prerequisite: Six units in philosophy.

Philosophical analysis of knowledge, including conceptions of belief, justification, and truth.

PHIL 525. Metaphysics (3)

Prerequisite: Six units in philosophy.

Prominent theories of reality, e.g., realism and nominalism, materialism and idealism, teleology and determinism.

PHIL 528. Theory of Ethics (3)

Prerequisite: Six units in philosophy.

Advanced topics in ethical theory, including normative ethics and meta-ethics. May include historical or contemporary readings or both. Issues may include content of moral value, nature of moral judgment, and accounts of virtue and right action.

PHIL 531. Philosophy of Language (3)

Prerequisite: Six units in philosophy.

An introduction to theories of meaning for natural languages and formal systems; concepts of truth, synonymy and analyticity; related epistemological and ontological problems.

PHIL 532. Philosophy of History (3)

Prerequisite: Six units in philosophy.

Accounts of historical development, historical change, and nature of historical explanation.

PHIL 535. Philosophy of Religion (3)

Prerequisite: Six units in philosophy.

Philosophical examination of issues raised by the religious impulse in man.

PHIL 536. Philosophy of Mind (3)

Prerequisite: Three upper division units in philosophy.

Prominent theories and arguments regarding relation between mind and body. Varieties of dualism considered along with major materialist rivals.

PHIL 537. Philosophy of Science (3)

Prerequisite: Six units in philosophy.

The basic concepts and methods underlying contemporary scientific thought. Contributions of the special sciences to a view of the universe as a whole.

PHIL 541. History of Aesthetics (3)

Prerequisite: Philosophy 101, 102 or 103.

Major documents in the history of aesthetics.

PHIL 542. Philosophy of Art (3)

Prerequisite: Six units in philosophy.

The nature of aesthetic experience. Principal contemporary theories of art in relation to actual artistic production and to the function of art in society.

PHIL 543. Philosophy and Literary Theory (3)

Prerequisites: Three upper division units in philosophy and three upper division units in literature.

Relations between philosophy and literary discourse. Strategies of interpretation offered by major contemporary thinkers.

PHIL 555. Philosophy of Technology (3)

Prerequisite: Six units in philosophy.

Philosophy of technology in leading thinkers such as Marx, Heidegger and Marcuse.

PHIL 575. A Major Philosopher (3)

Prerequisite: Six upper division units in philosophy.

The writings of one major philosopher. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units applicable to the major. Maximum credit six units applicable to a master's degree.

PHIL 596. Selected Topics (3)

Prerequisite: Six upper division units in philosophy.

A critical analysis of a major problem or movement in philosophy. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of nine units of 596 applicable to the major in philosophy. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

PHIL 599. Special Study (1-3)

Prerequisite: Upper division or graduate standing and consent of instructor.

Directed individual study in philosophy on a theme or topic chosen in consultation with the instructor. Maximum credit six units. Maximum combined credit six units of Philosophy 599 and 798 applicable to the M.A. degree in Philosophy.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.

Physics

In the College of Sciences

OFFICE: Physics 131

TELEPHONE: 619-594-6240

FAX: 619-594-5485

E-MAIL: physdept@sciences.sdsu.edu

<http://www.physics.sdsu.edu>

Faculty

Emeritus: Burnett, Cottrell, Day, Feher, Garrison, Lilly, Nichols, Piserchio, Reh fuss, Shackelford, Shore, Smith, Teasdale, Templin, Wallace, Wolter

Chair: Papin

Professors: Davis, Goldberg, Johnson, Morris, Oseroff, Papin, Roeder, S., Sweedler, Torikachvili

Associate Professor: Johnson

Assistant Professors: Anderson, Baljon, Weber

Lecturers: DiMauro, Ferguson, Nelson, Roeder, P.

Adjunct: Bendall, Jani, Mueller

Offered by the Department

Master of Arts degree in physics.

Master of Science degree in physics.

Master of Science degree in radiological health physics.

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

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

Major in chemical physics with the B.S. degree in applied arts and sciences.

Teaching major in physical science for the single subject teaching credential in science/physical science.

Minor in physics.

The Major

The study of physics is considered the foundation of modern science. It has fascinated the finest minds of every age – from Newton to Maxwell, Einstein, Bohr, Schroedinger, Oppenheimer and Schwinger. The study of this diverse field encompasses such areas as optics, electricity, magnetism, the properties of the solid state, atomic structure, nuclear structure, motion, relativity, space and time. Physics also plays a significant role in chemistry, biology, astronomy, and geology, and in the applied sciences of engineering and technology.

Students who become physics majors will be selecting a rewarding and vital career. The great burst of activity during the last 20 years has instilled a new excitement in physics. For example, the invention of the laser in the late 1950s revolutionized the field of optics. These advances stimulated whole new areas in physics applications. Superconductivity has led to the search for a high-temperature superconductor so that electrical power might be transmitted without loss; quantum mechanical tunneling has led to the tunnel diode; and solid state physics brought about the transistor and its successors.

The career opportunities for physics graduates are as diverse as the field itself. They include research and development; management or administration in industrial laboratories or government agencies; technical sales; electronic design; laser instrument research; and secondary teaching.

Physics Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 19021)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Individual master plans for each student are filed with both the physics undergraduate adviser and the Office of Advising and Evaluations. No more than 48 units in physics courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Physics 195, 195L, 196, 196L, 197, 197L; Chemistry 200; Mathematics 150, 151, 252. (29 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 31 upper division units to include Physics 311, 350, 354, 357, 360, 400A-400B, 410; Mathematics 342A, 342B.

Physics Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 19021)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Individual master plans for each student are filed with both the physics undergraduate adviser and the Office of Advising and Evaluations.

A minor is not required with this major.

Basic Requirements for all Students

Preparation for the Major. Physics 195, 195L, 196, 196L, 197, 197L; Chemistry 200; Mathematics 150, 151, 252. (29 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 43 upper division units to include Physics 311, 350, 354, 357, 360, 400A-400B, 410, 498A, 498B; Mathematics 342A, 342B. In addition, the student must complete the requirements for either one of the following areas:

(a) General Physics

Nine units of elective coursework in physics or related areas. Electives must be approved by the Physics department undergraduate adviser.

(b) Modern Optics

Required: Physics 406, 552, 553.

Recommended: Physics 516, 532, 554.

Chemical Physics Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 19081)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." Individual master plans for each student are filed with the physics and chemistry undergraduate advisers and the Office of Advising and Evaluations.

A minor is not required with this major.

Preparation for the Major. Physics 195, 195L, 196, 196L, 197, 197L; Chemistry 200, 201, 231, 251; Mathematics 150, 151, and 252. (43 units)

Recommended: A course in computer programming.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 39 upper division units to include Physics 311, 350, 400A, 410; Chemistry 410A-410B, 417, 550; Mathematics 342A, 342B; six units selected from Physics 357, 360, 400B; Chemistry 431, 457, 510, 515; Physics 538 or Chemistry 538; and Research Project: Chemistry 497 (3 units) or Chemistry 498 (3 units) or Physics 498A and 498B (3 units).

Physical Science Major

In preparation for the Single Subject Teaching Credential in Science/Physical Science

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

(Major Code: 19011)

The physical science major in preparation for the single subject teaching credential in science/physical science has been submitted to the California Commission on Teacher Credentialing for approval.

Contact the natural science program coordinator for additional information.

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of the catalog on "Graduation Requirements." Candidates may complete one of their two American Institutions courses at the upper division level or satisfy the California state and local government portion of American Institutions by passing the California Government examination available through the Office of Student Testing, Assessment and Research.

A minor is not required for this major.

Preparation for the Major. Africana Studies 140 or Chicana and Chicano Studies 121A or Communication 103; Astronomy 109, 201; Biology 201A, 201B; Chemistry 200, 201; Mathematics 150, 151, 252; Physics 195, 195L, 196, 196L, 197, 197L; Teacher Education 211 (1 unit). (50 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 31 upper division units to include Geological Sciences 412; Mathematics 342A; Natural Science 315; Physics 311, 317, 350, 354, 357, 360, 400A.

Additional Requirements for Subject Matter Preparation Certification

Satisfactory Grades. At most one course with a C- or lower among the courses listed under Preparation for the Major, and at most one course with a C- or lower among the courses listed under the Major. If a course is repeated, the highest grade will count.

Formative Assessment. Completion of a satisfactory, preliminary portfolio two semesters prior to graduation. Contact the subject matter preparation adviser for information.

Summative Assessment. Completion of a satisfactory, final portfolio, and a positive recommendation from a committee consisting of the instructor of Physics 357, the Department of Physics chair, and the subject matter preparation program adviser.

Physics Minor

The following courses are prerequisites to the physics minor and do not count toward the 15 units required for the minor. Physics 195, 195L, 196, 196L, 197, 197L; Mathematics 150, 151, 252.

The minor in physics consists of a minimum of 15 units to include Physics 350, 354, 360, 400A; Mathematics 342A.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (PHYS)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

Maximum credit 12 units for any combination of Physics 107, 170, 180A-180B, 182A-182B, 195, 195L, 196, 196L, 197, 197L.

PHYS 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.

PHYS 149. Special Study (1-2) Cr/NC I, II

Prerequisite: Consent of supervising instructor.

Individual study and laboratory work in area of student's major interest. Students will be assigned a member of the staff who will supervise their work. Maximum credit two units.

PHYS 170. Preparation for Physics (3)

Prerequisite: Two years of high school algebra.

Elemental principles of physics approached from problem-solving and critical thinking perspectives necessary for success in Physics 180A and Physics 195. Not open to students with credit in Physics 107, 180A, or 195.

PHYS 180A-180B. Fundamentals of Physics (3-3) I, II

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement and qualification on the Mathematics Departmental Placement Examination, Part IA. Physics 180A is prerequisite to 180B.

Recommended: For Physics 180A, concurrent registration in Physics 182A; for Physics 180B, concurrent registration in Physics 182B.

Semester I: Mechanics, wave motion, sound, and fluids. Semester II: Electricity, magnetism, optics, and modern physics. Presented in a two-semester algebra/trigonometry based sequence. Physics 180A not open to students with credit in Physics 195. Physics 180B not open to students with credit in Physics 196.

PHYS 182A-182B. Physical Measurements (1-1) I, II

Three hours of laboratory.

Prerequisite for 182A: Credit or concurrent registration in Physics 180A.

Prerequisite for 182B: Credit or concurrent registration in Physics 180B.

A laboratory course to accompany Physics 180A-180B. Semester I: Properties of matter, mechanics, sound, and wave motion. Semester II: Electricity, DC circuits, oscilloscope measurement techniques, electric and magnetic fields, and optics. 182A: Not open to students with credit in Physics 195L. 182B: Not open to students with credit in Physics 196L.

PHYS 195. Principles of Physics (3) I, II**(195 + 195L: CAN PHYS 8)****(195 + 195L + 196 + 196L + 197 + 197L: 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.

PHYS 195L. Principles of Physics Laboratory (1) I, II**(195 + 195L: CAN PHYS 8)****(195 + 195L + 196 + 196L + 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.

PHYS 196. Principles of Physics (3) I, II**(196 + 196L: CAN PHYS 12)****(195 + 195L + 196 + 196L + 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.

PHYS 196L. Principles of Physics Laboratory (1) I, II**(196 + 196L: CAN PHYS 12)****(195 + 195L + 196 + 196L + 197 + 197L: 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.

PHYS 197. Principles of Physics (3) I, II**(197 + 197L: CAN PHYS 14)****(195 + 195L + 196 + 196L + 197 + 197L: CAN PHYS SEQ B)**

Prerequisite: Physics 196.

Fundamental principles of physics in areas of wave motion, sound, electromagnetic waves, optics, relativity, and modern physics. Designed for students requiring calculus-based physics.

PHYS 197L. Principles of Physics Laboratory (1) I, II**(197 + 197L: CAN PHYS 14)****(195 + 195L + 196 + 196L + 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.

PHYS 296. Experimental Topics (1-4)

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

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

PHYS 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.

PHYS 311. Electronics for Scientists (4)

Three lectures and three hours of laboratory.

Prerequisites: Physics 180B and 182B, or 196 and 196L.

AC and DC circuits, diodes, transistors, conventional and operational amplifiers, analog to digital conversion, pulse and digital electronics. Introduce science majors to modern electronic devices and their utilization in scientific instrumentation.

PHYS 317. Introduction to Computational Physics (2)

Six hours of laboratory.

Prerequisites: Physics 197 and Mathematics 342A.

Numerical methods applied to a variety of physics topics. Use of computers to solve and plot problems involving differential equations, matrices, root finding, numerical integration.

PHYS 333. Physics Perspectives (3)

Prerequisite: Physics 180B or 197.

Theoretical physics emphasizing basic themes cutting across separate traditional subject divisions. Visualize three-dimensional vector fields, forces and torques. Balance between derivations, conceptual understanding, numerical problem-solving, estimations, and proportional reasoning.

PHYS 350. Classical Mechanics (3)

Prerequisites: Physics 195 with a minimum grade of C and Physics 197. Credit or concurrent registration in Mathematics 342A.

Newtonian mechanics, gravitation, small oscillations, collisions, motion of rigid bodies, Lagrangian mechanics.

PHYS 354. Modern Physics (3)

Prerequisites: Physics 197 with a minimum grade of C. Credit or concurrent registration in Mathematics 342A.

Special theory of relativity. Particle properties of electromagnetic radiation, and wave properties of particles. Introduction to quantum theory with applications to atomic structure.

PHYS 357. Advanced Physical Measurements (3)

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.

PHYS 360. Thermal Physics (3)

Prerequisites: Physics 350, Mathematics 342A, Physics 354 or Chemistry 410A.

Classical thermodynamics and statistical mechanics. Applications of equilibrium thermodynamics. Statistical mechanics, including concepts from probability and statistics. Maxwell-Boltzmann, Fermi-Dirac, and Bose-Einstein statistics. Applications of statistical mechanics in calculating macroscopic properties of simple systems.

PHYS 400A-400B. Classical Electromagnetism (3-3)

Prerequisites for Physics 400A: Physics 196 with a minimum grade of C; Physics 197 and Mathematics 342A. Physics 400A is prerequisite to Physics 400B.

Electrostatics, magnetostatics, electromagnetic induction, Maxwell's equations, radiation and wave propagation.

PHYS 406. Optics (3)

Prerequisites: Physics 197, 197L, Mathematics 342B.

Reflection, refraction, matrix methods, dispersion, polarization, double refraction, interference, diffraction, Fourier optics, coherence theory, lasers, and holography with applications to optical instruments, wave propagation, and the nature of light.

PHYS 410. Quantum Mechanics (3)

Prerequisites: Physics 350, Mathematics 342B, Physics 354 or Chemistry 410A.

Mathematical and physical foundations of quantum theory in terms of wave and matrix mechanics. Applications to properties of atoms and solids.

PHYS 496. Selected Topics in Physics (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.

PHYS 498A. Senior Research (1) Cr/NC

One discussion period and two additional hours per week to be arranged.

Prerequisites: Physics 357 and consent of instructor.

Selection and design of individual research project. Oral and written progress reports.

PHYS 498B. Senior Research (2)

Two discussion periods and four additional hours per week to be arranged.

Prerequisite: Physics 498A.

Laboratory work, progress reports, oral and written final reports.

PHYS 499. Special Study (1-3)

Individual study or laboratory work on a special problem in physics selected by the student. Each student will be assigned a member of the staff who will supervise his/her work. Credit, hours and topics to be arranged in each case. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

PHYS 516. Theory of Scientific Instrumentation (3)

Prerequisites: Physics 311, Mathematics 342B.

Fourier analysis with applications to scientific instrumentation, spectroscopy, and image processing; Z transforms and digital filtering; detection systems and their optimization of the signal-to-noise ratio.

PHYS 532. Condensed Matter Physics (3)

Prerequisite: Credit or concurrent registration in Physics 410.

Elastic, thermal, electric, magnetic and optical properties of solids. Introduction to the energy band theory of solids, with applications to semiconductors and metals.

PHYS 533. Experimental Techniques in Condensed Matter Physics (3)

One lecture and six hours of laboratory.

Prerequisites: Physics 357 and credit or concurrent registration in Physics 532.

Experiments in various fields of condensed matter such as x-ray diffraction, Hall effect, superconductivity, and electron paramagnetic resonance.

PHYS 534. Colloquium in Condensed Matter Physics (1) Cr/NC

Prerequisite: Credit or concurrent registration in Physics 532.

Student and faculty research project presentations. Maximum credit three units.

PHYS 538. Polymer Science (3)

(Same course as Chemistry 538.)

Prerequisites: Chemistry 200 or 202; and Chemistry 410B or Physics 360 or Mechanical Engineering 350 or 352.

Structure, synthesis, physical properties, and utilities of polymers.

PHYS 552. Modern Optics and Lasers (3)

Prerequisites: Physics 406 with minimum grade of C; credit or concurrent registration in Physics 400B.

Electromagnetic theory, matrix methods of optics, propagation of Gaussian beams, optical resonators, interaction of radiation and atomic systems, theory of laser oscillation, nonlinear optics, specific laser systems, optical detectors, applications of lasers in physics.

PHYS 553. Modern Optics Laboratory (3)

One lecture and six hours of laboratory.

Prerequisites: Physics 357 with minimum grade of C; Physics 406 with minimum grade of C; credit or concurrent registration in Physics 552.

Experiments in various fields of modern optics such as holography, physics of lasers, Fourier transform spectroscopy, Raman spectroscopy, light modulation techniques, fiber optics, spatial filtering, diffraction grating spectroscopy, radiometry, and nonlinear optics.

PHYS 554. Colloquium in Optics Research (1) Cr/NC

Prerequisites: Concurrent registration in Physics 498A or 498B or 797 and consent of instructor.

Student and faculty research project presentations. Maximum credit three units.

PHYS 560. Radiological Physics and Dosimetry (3)

Prerequisite: Credit or concurrent registration in Physics 354.

Ionizing radiation fields, interactions of radiation with matter, cavity theory, external radiation dosimetry.

PHYS 561. Nuclear Instrumentation (3)

One lecture and six hours of laboratory.

Prerequisites: Physics 311 and 560.

Radiation detection, measurement, and spectroscopy. Ionization chambers, GM and proportional counters, scintillation and semiconductor detectors, and thermoluminescent dosimetry.

PHYS 564. Nuclear Physics (3)

Prerequisite: Credit or concurrent registration in Physics 410.

Nuclear and elementary particle phenomena including nuclear structure, decay, and radioactivity. Nuclear reactions and devices. Experimental methods and applications.

PHYS 570. Relativity (3)

Prerequisites: Physics 354 and 400B.

Relative coordinates, Lorentz transformation, covariant formulation of the laws of physics, applications of special relativity, introduction to curved space time, cosmology.

PHYS 580. Computational Physics (3)

Prerequisites: Physics 354; Computer Engineering 160 or Computer Science 106; and credit or concurrent registration in Physics 400A.

Computer programming for numerical solution of problems in classical mechanics, electromagnetism, optics, and quantum mechanics. Use of Fortran and C programming languages and the UNIX operating system. Incorporation of standard subroutines for linear algebra and differential equations into student written programs.

PHYS 596. Special Topics in Physics (1-4)

Prerequisite: Consent of instructor.

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

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

Policy Studies in Language and Cross-Cultural Education

OFFICE: Business Administration 248
TELEPHONE: 619-594-5155
FAX: 619-594-1183

In the College of Education

Accredited by the California Commission on Teacher Credentialing.

Faculty

Emeritus: Kuhlman, Nuñez, Pacheco
Interim Chair: Espinosa
Professors: Espinosa, Ochoa, Young
Associate Professors: Jones, Rodriguez, A., Rodriguez, J., Tran
Assistant Professors: Alfaro, Cadiero-Kaplan
Lecturers: Sanz, Sparaco

Offered by the Department

Master of Arts degree in education.
Multiple subject bilingual cross-cultural language and academic development credential (B/CLAD) emphasis: Spanish.
Single subject bilingual cross-cultural language and academic development credential (B/CLAD) emphasis: Spanish.
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 <http://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 in BA-248).

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/CSET, 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 Office of Student Testing, Assessment, and Research in SS-2549, 619-594-5216. Call the PLC department for additional information on CBEST.
2. **Subject Matter Competency.** Students must verify completion of subject matter competency in diversified subjects commonly taught in self-contained classrooms prior to admission to the Multiple Subject Credential Program. To be admitted to the BCLAD multiple subject credential program, a candidate shall have achieved a passing score on the California Subject Examination for Teachers (CSET) that is required for the credential sought. Registration information and materials for the CBEST are available in BA-259.
3. **Prerequisite Courses.** The following courses must be completed with a grade of "C" or better prior to admission to the program, but may be in progress at the time of application or taken in the term immediately prior to the program start date.

Liberal Studies Majors.

PLC 515	3 units
ED 451	3 units
SPED 450	2 units

Non-Liberal Studies Majors (must take the above and below prerequisites).

ENS 241A, 241B	2 units
LING 420* or 520	3 units
LING 452*	3 units
MATH 210** or 211 or 313	3 units
Art 100 or 101 or 387; Music 102 or 343; Theatre 100 or 120 or 310 or 315	3 units

* Linguistics 420 and 452 are requirements for the Liberal Studies major.

** With approval of the mathematics adviser, any of the following mathematics courses may be substituted for Mathematics 210: Mathematics 121, 150, 312.

4. **Grade Point Average.** Candidates must have cumulative grade point averages (GPAs) within the upper one-half of undergraduate students in the candidates' majors. GPAs vary according to discipline and graduating institution. GPA requirements are available in the Policy Studies in Language and Cross-Cultural Education Department (PLC), BA-248. Candidates are required to submit two sets of official transcripts from all colleges and universities attended and unofficial SDSU transcripts for GPA calculations.
5. **Letter of Recommendation.** Two professional references and one letter of recommendation must be submitted attesting to the applicants following characteristics: (a) attitude, aptitude and ability to teach children; (b) personality and character; (c) academic ability. At least one letter should be from an elementary school teacher the student has worked with and the others may be from faculty and administrators.
6. **Tuberculin Clearance.** Evidence of a negative tuberculosis test (these tests are valid for four years and must be in effect during the time that candidates are enrolled in the credential program). Clearance statements may be secured from Health Services, private physicians or HMOs, or public health agencies.
7. **Early Field Experience.** Applicants must provide evidence of a minimum of 60 hours of experience with students in typical elementary classroom settings within the last three years. Evidence must be documented.
8. **Oral English and Written Statement of Professional Goals and Philosophy.** Have an interview with the admissions and retention committee of the PLC Department.
9. **California Certificate of Clearance.** This certificate represents a background clearance and check conducted by the State Department of Justice and Federal Bureau of Investigation. Turnaround time for the clearance can take as long as eight months. Possessors of K-12 California credentials may satisfy this requirement by submitting copies of those certificates. 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 Processing Center, BA-250.
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 BA-248, telephone 619-594-5155.
11. **Language and Culture Examination.** All candidates must take and meet the minimum PLC Department Spanish Language Proficiency and Cultural Awareness Examination prior to entering the credential program. Please call 619-594-1160.
12. **Reading Instruction Competence Assessment (RICA).** California Education Code Section 44283 requires that candidates for the preliminary or clear credential multiple subject pass this RICA requirement. The purpose of this assessment is to ensure that the candidate possess the knowledge and skills important for the provision of effective reading instruction to students. The RICA requirement applies to candidates who did not complete all

credential requirements prior to October 1, 1998. Candidates must have passed the RICA in order to be able to file for the credential.

13. **Appeals Process.** Candidates who do not meet all the admission requirements may petition the PLC Department Admissions and Retention Committee for individual consideration; petition forms must be submitted concurrently with the application packets.
14. **Application.** Applicants should complete application procedures the semester prior to beginning the credential program. Call the department for Policy Studies application deadline.

In addition to the minimum admissions standards identified above, the PLC Department Admissions and Retention Committee may also consider qualifications such as previous teaching experience and relevant working experience with children. Due to the number of applicants, application to the program does not ensure admission.

	Program	Units
PLC 901	Professional Portfolio I: Health and Safety in Classroom Teaching (Cr/NC).....	1
PLC 902	Professional Portfolio II (Cr/NC).....	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 915A	Teaching and Learning in the Content Area: English Language Development/SDAIE: Multiple Subjects	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

Preliminary Credential Requirements

1. A bachelor's degree (or higher) with any major other than education.
2. Completion of an approved program of professional education. (See Department of Policy Studies in Language and Cross-Cultural Education for further information.)
3. Passage of PRAXIS Multiple Subject/CSET.
4. Passage of the Spanish Language Proficiency and Cultural Awareness Examination.
5. Demonstrated knowledge of principles and provisions of United States Constitution through successful completion of three-unit college level course or examination. Courses are listed in General Catalog section on "Graduation Requirements," IV. American Institutions Requirement.
6. Passage of California Basic Educational Skills Test (CBEST).
7. Passage of Reading Instruction Competence Assessment (RICA) Test.
8. Completion of an approved fifth year program (a minimum of 30 upper division or graduate-level postbaccalaureate units).

9. Demonstrated knowledge of the needs of and methods of providing educational opportunities to individuals with exceptional needs: Special Education 450.
10. Demonstrated knowledge of computer hardware, software, and applications to educational/classroom use (computer literacy): Educational Technology 470.
11. Knowledge of health education in California, including substance abuse and nutrition: Community Health Education 101 or 920, or Health and Human Services 280, or Policy Studies in Language and Cross-Cultural Education 901, and verification of CPR competency.

NOTE: Undergraduate students in their final semester prior to obtaining a baccalaureate degree may sign up for concurrent post-baccalaureate credit as explained in the section of this catalog on "General Regulations."

According to SB 2042 legislation, teachers will be able to earn Professional Clear Credentials upon successful completion of induction programs sponsored by their employers and approved by the California Commission on Teacher Credentialing.

Single Subject Bilingual Cross-Cultural Language and Academic Development Credential (B/CLAD) Emphasis: Spanish (Credential Code: 00100)

The Single Subject Bilingual Cross-Cultural Language and Academic Development (B/CLAD) Spanish emphasis is available for students interested in teaching in a bilingual credential secondary school classroom. This credential authorizes the holder to teach in any self-contained bilingual or regular classroom in which one teacher is responsible for teaching the given subject area.

Candidates who will pursue this credential need to specify "Single Subject 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 <http://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/PRAXIS-CSET 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 Office of Student Testing, Assessment and Research 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 teacher-training institution or through California Subject Examinations for Teachers (CSET). Competency will be assessed and verified by subject matter departments at SDSU. Requirements for the various single subject majors are listed with the academic majors in the *General Catalog*.

Test scores submitted for verification of subject matter competency are valid for five years from the date of the examination. Information and registration materials for the current PRAXIS examinations are available in the lobby of the Education building.

3. Prerequisite Courses:

PLC 515	Theories and Practices in Multilingual Education	3 units
ED 451	Introduction to Multicultural Education	3 units
LING 420	Linguistics and English	3 units
SPED 450	Classroom Adaptations for Special Populations	2 units

4. **Grade Point Average.** Candidates must have cumulative grade point averages (GPAs) within the upper one-half of undergraduate students in the candidates' majors. GPAs vary according to discipline and graduating institution. GPA requirements are available in the Policy Studies in Language and Cross-Cultural Education Department (PLC), BA-248. Candidates are required to submit two sets of official transcripts from all colleges and universities attended and unofficial SDSU transcripts for GPA calculations.
5. **Letter of Recommendation.** Two professional references and one letter of recommendation must be submitted attesting to the applicant's following characteristics: (a) attitude, aptitude and ability to teach children; (b) personality and character; (c) academic ability. Letter of recommendation should be from a school teacher with whom the student has worked and the others may be from faculty and administrators.
6. **Tuberculin Clearance.** Evidence of a negative tuberculosis test (these tests are valid for four years and must be in effect during the time that candidates are enrolled in the credential program). Clearance statements may be secured from Health Services, private physicians or HMO's, or public health agencies.
7. **Early Field Experience.** Applicants must provide evidence of a minimum of 45 hours of experience with adolescent students in typical classroom settings within the three years. Evidence must be documented.
8. **Oral English and Written Statement of Professional Goals and Philosophy.** Have an interview with the admissions and retention committee of the PLC Department.
9. **California Certificate of Clearance.** This certificate represents a background clearance and check conducted by the State Department of Justice and Federal Bureau of Investigation. Turnaround time for the clearance can take as long as eight months. Possessors of K-12 California credentials may satisfy this requirement by submitting copies of those certificates. Submit clearance application packet and fees to the Credentials Processing Center, BA-250.
10. **Credential Advising Appointment.** Each applicant must meet with a faculty adviser to plan an appropriate program, which includes a minimum of 31 units as defined by the Commission on Teacher Credentialing. Appointments can be made in BA-248, telephone 619-594-5155.
11. **Language and Culture Examination.** All candidates must take and meet the minimum Spanish Language Proficiency and Cultural Awareness Examination prior to entering the credential program. Please call 619-594-3218.

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		Units
Prerequisites		
ED 451	Introduction to Multicultural Education	3
PLC 515	Theories and Practices in Multilingual Education	3
LING 420	Linguistics and English	3
SPED 450	Classroom Adaptations for Special Populations.....	2
First Semester		
PLC 400	The Secondary School and Bilingual Education	3
PLC 924	Behavioral and Psychological Aspects of Teaching in the Bilingual Classroom	3
PLC 933	Skills in Teaching Reading to Bilingual Secondary Students.....	3
PLC 953	Language Development in Bilingual Secondary Classrooms	3
PLC 954	Humanistic and Social Aspects of Teaching in the Bilingual Classroom	3
PLC 963	Student Teaching for Bilingual Secondary Students I	4
TE 914	Teaching and Learning in the Content Area: Major	3
Second Semester		
PLC 901	Professional Portfolio I: Health and Safety in Classroom Teaching (Cr/NC)	1
PLC 903	Bilingual Secondary Student Teaching Seminar ...	3
PLC 915B	Teaching and Learning in the Content Area: English Language Development/Specially Designed Academic Instruction.....	3
PLC 964	Student Teaching for Bilingual Secondary Students II	9-12
EDTEC 470	Technologies for Teaching.....	3

Preliminary Credential Requirements

1. A bachelor's degree with one of the approved single subject majors listed in the School of Teacher Education single subject teaching credential catalog section. Credentials can be granted only in the designated single subject credential areas.
2. Completion of an approved program of professional education. (See Department of Policy Studies in Language and Cross-Cultural Education for further information about the approved programs.)
3. MAJOR ADVISER'S RECOMMENDATION. Passage of subject matter examination(s) or waiver thereof through completion of one of the approved single subject credential majors with a written recommendation from the Ryan major adviser.

Candidates applying for the Single Subject Credential program after August 31, 1995 who have not satisfied subject matter competency through coursework or PRAXIS examination(s), must take and pass a new set of examinations for the Single Subject Credential in seven areas: biology[#], chemistry[#], English language arts, geoscience[#], mathematics, physics[#], and social science. Candidates for the science authorizations (noted with #) must also take and pass a general science examination. Candidates should check with the Policy Studies in Language and Cross-Cultural Education Department (PLC), BA-248, to clarify the appropriate means for satisfaction of the subject matter competency requirement.

4. Passage of the Spanish Language Proficiency and Cultural Awareness Examination.
5. Demonstrated knowledge of principles and provisions of United States Constitution through successful completion of three-unit college level course or examination. Courses are listed in General Catalog section on "Graduation Requirements," IV. American Institutions Requirement.
6. Passage of California Basic Educational Skills Test (CBEST).

NOTE: Undergraduate students in their final semester prior to obtaining a baccalaureate degree may sign up for concurrent postbaccalaureate credit as explained in this catalog.

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 credentialled teachers in theory and application of English Language Development (ELD) and Specially Designed Academic Instruction in English (SDAIE) methodology for linguistically diverse students in grades K-12.

- A. Prerequisites: Linguistics 420 or 520.
- B. Certificate Requirements:
1. Twelve units including: Policy Studies in Language and Cross-Cultural Studies 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), BA-248, or call 619-594-5155 for more information.

* Prerequisite waived for students in this certificate program.

Bilingual Cross-Cultural Language and Academic Development (BCLAD) Certificate

This experimental certificate program meets California Commission on Teaching Credentialing (CTC) competencies for the BCLAD (Spanish/English) Certificate through 12 units of coursework conducted in California and Mexico. It addresses the following three domains:

1. Methodology for Primary Language Instruction
2. The Culture of Emphasis
3. The Language of Emphasis

Admission Criteria

Candidates must have an intermediate level of proficiency in Spanish and their CLAD credential/certificate to qualify, plus two letters of recommendation from school or district based personnel. Candidates will be administered a Spanish proficiency pre-and 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)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES (Intended for Undergraduates)

PLC 397. Problems in Education (Credit to be arranged) I, II (Offered only in Extension)

Prerequisite: Consent of instructor.

Class study of specially selected problems in education. Does not apply to pattern requirements for credentials. Credit earned in this course not applicable to a bachelor's degree.

PLC 400. The Secondary School and Bilingual Education (3) II

Prerequisite: Upper division standing.

Bilingual education at the secondary levels, including roles, curricular models, organization, and legal justification. Must demonstrate bilingual competencies before conclusion of course and admission to program. Taught in Spanish.

PLC 415. Fieldwork in Bilingual Community Context (3)

Two lectures and two hours of activity.

Prerequisite: Upper division standing.

Analysis of culturally and linguistically diverse school communities. Participation in bilingual classrooms/schools in preparation for entering B/CLAD credential program.

PLC 496. Experimental Topics (1-4) I, II

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

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

Prerequisite: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

PLC 515. Theories and Practices in Multilingual Education (3)

Theoretical, legal, and historical context for multilingual education; policies and practices in bilingual programs; school and community profiles. Fieldwork required. Some sections taught in Spanish. (Formerly numbered Policy Studies in Language and Cross-Cultural Education 401.)

PLC 553. Language Assessment and Evaluation in Multicultural Settings (3)

Theories and methods of assessment and evaluation of diverse student populations including authentic and traditional models. Procedures for identification, placement, and monitoring of linguistically diverse students. Theories, models, and methods for program evaluation, achievement, and decision making.

PLC 596. Special Topics in Bilingual and Multicultural Education (1-3)

Prerequisite: Consent of instructor.

Selected topics in bilingual, cross-cultural education and policy studies. See *Class Schedule* for specific content. Maximum credit of six units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.

Political Science

In the College of Arts and Letters

OFFICE: Nasatir Hall 127
TELEPHONE: 619-594-6244
FAX: 619-594-7302

Faculty

Emeritus: Andrain, Crain, Cutter, Feierabend, Gripp, Hobbs, Janssen, Johns, Kahng, Keiser, Lewin, Little, Miles, Padgett, Schultze, Soule, Strand, Terrell

Chair: King

Professors: Gupta, Heck, Hofstetter, King, Loveman

Associate Professors: Abdel-Nour, Alexseev, Carruthers, Fairlie, Kennedy, McCall

Assistant Professors: Adams, Graubart, Guang, Maher, Schreiber, Varadarajan

Lecturers: Bergstrom, Epps, Ingram, Speckmann, Stoddard, Sullivan

Offered by the Department

Master of Arts degree in political science.

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

Minor in political science.

The Major

Political science is the study of governments. Its concerns, however, are not limited to formal governmental institutions such as the executive and legislative branches or the justice systems. Political science is also interested in other organizations and activities which are part of the process of government, including political parties, interest groups, and the press.

Students who become political science majors will learn about who creates the rules by which people are governed, the attitude and behavior of leaders and members of the public which cause certain decisions to be made, and how these decisions affect such values as liberty, equality, welfare, and justice. Political science is concerned with contemporary public affairs, problems in other political systems and contemporary international politics, as well as with historical growth, evolution, and decline of various types of governments.

The many career opportunities which might be available to political science graduates include teaching at the secondary level; positions with the federal government in areas such as intelligence, foreign affairs, environmental protection, and budget and computer administration; positions with state and local governments, including administrative aide for a city manager, staff assistant for a county supervisor, and assistant to the registrar of voters; administrative positions on the staffs of national, state, and local legislators; claims adjuster or claims representative; statistical technician; marketing researcher; lobbyist for a business or trade organization; political reporter; and title office trainee.

Impacted Program

The political science major is an impacted program. To be admitted to the political science major, students must meet the following criteria:

- Complete with a grade of C or higher: Political Science 101, 102 (or 320), 103, 201 (one of the following equivalent courses can be taken in place of Political Science 201: Economics 201, Psychology 270, Sociology 201, Statistics 119 or 250, or logic course Philosophy 120). These courses cannot be taken for credit/no credit (Cr/NC);
- Have a cumulative GPA of 2.50 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser in order to declare or change the major.

Political Science Major

**With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22071)**

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." A total of 40 upper division units must be taken, of which 24 must be selected as described in the major. No more than 48 units in political science courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Political Science 101, 102, 103, and three units of either statistics or logic (Political Science 201; Economics 201; Psychology 270; Sociology 201; Statistics 119, 250; Philosophy 120). (12 units)

These prerequisite courses may not be taken Cr/NC. The minimum grade in each class is C or higher.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or History 450W, Linguistics 305W, or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

International Experience. The department encourages international experience for its majors. It will facilitate the transfer of political science credits for appropriate study abroad, student exchange, or other overseas programs. International internships may also receive political science credit, if approved in advance by a department adviser.

Major. A minimum of 24 upper division units to include (a) 21 upper division units in political science, three of which can include Women's Studies 375, provided that at least three units shall be taken in each field; and (b) a three unit capstone requirement, fulfilled by Political Science 495, 497, 498, or any 500-level political science course excluding Political Science 515 and 516.

Field I: Political Theory. Courses numbered 301A to 305, 406 to 410.

Field II: American Politics. Courses numbered 321 to 338, 346 to 348, 422 to 454, 530 to 535.

Field III: Comparative Politics. Courses numbered 356 to 370, 555 to 568.

Field IV: International Politics. Courses numbered 375, 393, 478 to 485, 575 and 577.

Political Science Minor

The minor in political science consists of a minimum of 18 units in political science to include Political Science 101 and either 102 or 103; 12 of the 18 units must be in upper division courses and at least nine of these units must be selected from **one** of the following subject matter areas (a or b or c):

- a. Political Theory (Field I)
- b. American Politics (Field II)
- c. Comparative Politics and International Politics (Fields III and IV)

International Experience. The department encourages international experience for students in the political science minor. It will facilitate the transfer of political science credits for appropriate study abroad, student exchange, or other overseas programs. International internships may also receive political science credit, if approved in advance by a department adviser.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (POL S)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

POL S 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.

POL S 102. Introduction to American and California Government and Politics (3) I, II

Political processes and institutions in the United States and California. Considers a variety of public policy issues such as environmental quality, health, education, relation between government and business, taxation, and foreign affairs as reflected in the dynamics of national and state politics. When taken with Political Science 101 will satisfy graduation requirement in American Institutions. **Credit will not be allowed for both Political Science 102 and 320.**

POL S 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.

POL S 201. Elementary Statistics for Political Science (3) I, II

Prerequisites: Satisfaction of the Entry-Level Mathematics requirement; course in intermediate algebra; Political Science 101 and 102.

Quantitative methods in political science. Tabular and graphic presentation, measures of central tendency, simple correlation and sampling techniques. Students with credit or concurrent registration in the following lower division statistics courses will be awarded a total of four units for the two (or more) courses: Political Science 201; Biology 215; Civil Engineering 160; Economics 201; Psychology 270; Sociology 201; Statistics 119, 250.

POL S 296. Experimental Topics (1-4)

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

Field I: Political Theory

UPPER DIVISION COURSES (Intended for Undergraduates)

POL S 301A-301B. History of Western Political Thought (3-3)

Prerequisites: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Development of political ideas from the Golden Age of Greece until the French Revolution. Relevance of theory to a critical understanding of concrete political and social problems involving power, freedom, equality, justice and action. 301A emphasizes Plato, Aristotle, Augustine, Aquinas, and Marsilius of Padua. 301B stresses major political theorists such as Machiavelli, Hobbes, Locke, and Rousseau.

POL S 302. Modern Political Thought (3)

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

Major writers of political thought in the last two centuries, including Burke, J.S. Mill, Freud, Marx, Weber and Sartre. The following topics may be covered: conservatism, liberalism, utilitarianism, socialism, fascism, positivism and existentialism.

POL S 305. American Political Thought (3)

The origin and development of American political ideas from colonial times to the present. Meets the graduation requirement in the United States Constitution. When taken with Political Science 320, 321 or 422, will also satisfy graduation requirements in American Institutions.

POL S 406. Democracy and Mass Society (3)

Origin and development of theories of democracy and application of democratic ideas to contemporary political life.

POL S 408. Nations and Nationalism (3)

Prerequisite: Upper division standing.

Development and continuing appeal of national identities. How groups construct collective memories for political purposes. Relationship of nationalism to modernity, industrialization, and colonialism.

POL S 410. Contemporary Political Thought (3)

Prerequisite: Political Science 301B or 302 or 305 or 406.

Contemporary political questions and theoretical attempts to address them. Debates about justice, citizenship, and multiculturalism; as well as controversies over nature and scope of politics.

Field II: American Politics

UPPER DIVISION COURSES (Intended for Undergraduates)

POL S 321. State Politics (3)

Politics and policy making at the state and local levels, relations among national, state, and local governments. Emphasis on California problems and politics. Meets the graduation requirement in California government. When taken with Political Science 305 or 320, will also satisfy graduation requirements in American Institutions.

POL S 322. Creative Conflict Management (3)

One lecture and four hours of activity.

Facilitate interpersonal and group conflict resolution. New techniques in bargaining used to learn how to reach win-win agreement. The new paradigm taught is interest based negotiation (IBN).

POL S 334. Politics of the Environment (3)

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

Analysis of political process as it shapes environmental policy in a world characterized by finite resources. Emphasis on expanding national and international claims made upon these resources. May include a substantial amount of material about foreign political systems.

POL S 335. Public Policy (3)

Prerequisite: Political Science 101 and 102.

Theory and practice of process of formulating public policy; roles of administrators, legislators, courts, interest groups, and political parties; public agencies and public interest; case studies in formulating public policies. May include a substantial amount of material about foreign political systems.

POL S 336. Women's Issues in the American Political Process (3)

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

American politics and public policy debates around women participating in politics, including support of and restrictions to feminism, legal strategies, and new understandings of public and private issues.

POL S 338. The Legislative Process (3)

Detailed analysis of legislatures. Special attention devoted to impact of dynamic factors on formal procedures. May include a substantial amount of material about foreign political systems.

POL S 346. Law and the Political System (3)

Forces influencing the making of law; relationship between social and legal change; nature and limits of the judicial function.

POL S 347A-347B. American Constitutional Law (3-3)

Substantive principles of American constitutional law. Rights and liberties protected by the Constitution against action of federal and state governments. May include problems of judicial review, federal system, separation of powers, nature of selected congressional-presidential powers. Satisfies graduation requirement in United States Constitution. (Formerly numbered Political Science 547A-547B.)

POL S 348. The Supreme Court and Contemporary Issues (3)

Recent decisions of the Supreme Court of the United States and their relationship to contemporary political and social issues. Not open to students with credit in both Political Science 347A and 347B.

POL S 422. Urban Politics (3)

Prerequisite: Political Science 101 or 102.

The processes by which social conflicts in American urban areas are represented and regulated. Urban political culture; ecology; group development and activity; power structures; and reform movements are surveyed. The character of the urban political "problem" and proposed solutions are evaluated. Meets graduation requirement in California state and local government. When taken with Political Science 305 or 320, will also satisfy all requirements in American Institutions.

POL S 425. Political Behavior (3)

Prerequisites: Political Science 102.

Social and attitudinal variables in political behavior. Quantitative research data as used in electoral studies. May include a substantial amount of material about foreign political systems.

POL S 426. Political Communication (3)

Communication as a political process; the effects of political communication on individuals and groups. May include a substantial amount of material about foreign political systems.

POL S 430. Immigration and Border Politics (3)

Prerequisite: Political Science 102 or 320.

U.S. immigration and border politics within a global and historical perspective. Transformations of sovereignty, communities, identity, and rights within an era of mass migration and economic interdependence. Policy and popular debates about admission, border control, and the incorporation of migrants.

POL S 435. Power and Poverty in the United States (3)

Prerequisites: Political Science 101 and 102.

Impact of government upon income inequality and poverty in the United States. Examines programs of U.S. welfare state in comparative perspective and their successes and failures. Minimum standards for distributional justice and inquiries into obligations we have toward our fellow citizens.

POL S 436. The American Presidency (3)

Prerequisites: Political Science 101 and 102.

Analysis of principal institutions, functions and problems of the presidency and federal executive branch. Attention given to presidential leadership, staffing, executive-legislative relations and policy formation.

POL S 454. Special Problems in Public Law (3)

Prerequisites: Political Science 101 and 102, and three upper division units within Field II.

Exploration of selected issues in the field of law.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

POL S 530. Political Parties (3)

Prerequisite: Political Science 102 or 320.

The political party as a part of the process of government; party organization and activities; nominating and campaign methods; theories and functions of the party system; party responsibility. The functioning of political parties in the American political system. May include a substantial amount of material about foreign political systems.

POL S 531. Interest Groups and Political Movements (3)

Prerequisite: Political Science 101 or 102.

Pressure group activity, lobbies, mass movements; factors which explain origins and motivations of group behavior; votes, money, information, protest as political resources; theories of pluralism, power elite and mass society; class and ethnic politics. May include a substantial amount of material about foreign political systems.

POL S 533. Democracy in America (3)

Prerequisite: Political Science 102 or 320.

Quality and quantity of democratic experience in contemporary America. Construction of American regime, arrangement of power within that regime, expansion and contraction of citizen participation, and principles that Americans generally espouse.

POL S 535. Gender and Politics (3)

Prerequisites: Political Science 101 and 102.

How gender matters in understanding key political science concepts including democracy, public/private participation and representation. Women involved in political institutions as elected officials, activists, and policy makers from U.S. and comparative perspectives.

Field III: Comparative Politics

UPPER DIVISION COURSES (Intended for Undergraduates)

POL S 356. Governments of Continental Europe (3)

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

The political systems of countries of western continental Europe.

POL S 357. Politics of England (3)

The structure and functioning of the English parliamentary system with emphasis on present-day political principles and parties.

POL S 359. Government and Politics of Russia and the Commonwealth (3)

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

Contemporary developments in Russia and states of former Soviet Union. Focus on Gorbachev era and post-Gorbachev transformations of political, economic, and social systems.

POL S 361. Governments and Politics of the Developing Areas (3)

Prerequisites: Political Science 101 or 103; and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Internal political systems, governmental structures and the foreign policies of developing nations.

POL S 362. Governments and Politics of East Asia (3)

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

The internal political structure and foreign policies of China, Japan, and Korea.

POL S 363. Governments and Politics of the Middle East (3)

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

The governmental and political structures of representative states in the Middle East including Turkey, Israel and the Arab states.

POL S 364. Political Change in Modern Africa (3)

Dynamics of social and political change in modern Africa.

POL S 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)**

POL S 555. Comparative Political Systems (3)

Prerequisite: Political Science 103.

An examination of selected political and governmental systems for purposes of comparative study and analysis to determine similarities, differences and general patterns and universals among political systems.

POL S 560. Comparative Public Policy (3)

Prerequisite: Political Science 103 or 335.

Ways that political and social factors shape policy choices, implementation strategies, and policy outcomes in selected countries, emphasis on industrialized nations. Policy areas chosen from: education, health, nutrition, crime, transportation, housing, energy, population control, poverty, unemployment, inflation.

POL S 564. Environmental Politics in Global Perspective (3)

Prerequisite: Upper division or graduate standing.

Comparative examination of environmental politics and policy in major world regions. Considers environmental politics with related policy challenges of economic growth, equity, and social justice. Course content varies with regional focus.

POL S 566. Political Change in Latin America (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.

POL S 567. Political Systems of Latin America (3)

Prerequisite: Political Science 566.

Domestic and international politics of selected Latin American states.

POL S 568. Mexican Politics (3)

Prerequisite: Political Science 101 or 103.

Principal factors in Mexican governmental decision making. Ideology, political groups, tactics of leaders and governmental structure.

Field IV: International Politics

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

POL S 375. International Relations (3)

Dynamics of conflict and cooperation among national, international and transnational actors; contributing political, economic, and social factors.

POL S 393. Institute on World Affairs (3)

Weekly lectures by visiting experts on contemporary international relations. Speakers may include scholars, diplomats, government officials, journalists, military officers and international business executives.

POL S 478. Conduct of American Foreign Relations (3)

Institutional arrangements by which American foreign policy decisions are formulated and implemented. Issues confronted by American foreign policy decision makers.

POL S 479. National Security Policy (3)

Objectives, instruments, and consequences of national security policy.

POL S 482. International Relations of the Latin American States (3)

Foreign policies of Latin American states; the Organization of American States; relationships with the United Nations and the United States.

POL S 485. Politics of Globalization (3)

Prerequisite: Political Science 103 or six units of political science.

Ideas and practice of globalization since end of World War II, focusing on political debate around contemporary changes in trade, production, and global social relations, and on impact of globalization on political institutions such as state, civil society, social movements, and democracy.

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

POL S 575. International Relations of the Pacific Rim (3)

Prerequisite: Political Science 362 or 375.

Dynamics of conflict and cooperation among nations of the Pacific Rim. Stress on political and economics factors that shape interstate relations.

POL S 577. Principles of International Law (3)

The function of law in the international community. The historical development of the ideas and rules of international law and their place in the modern diplomatic and legal structure.

Elective Courses

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

POL S 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.**

POL S 495. Internship in Local Politics (3) I, II

Prerequisites: Limited to senior political science majors; three upper division units within Field II.

Seniors in the major choose internships within San Diego County in government agencies, offices of elected officials, or others approved by instructor. Requires 80 hours of fieldwork and periodic analytical essays.

POL S 496. Experimental Topics (1-4)

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

POL S 497. 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.

POL S 498. Internship in National Politics (12) I, II

Prerequisite: Consent of instructor.

Students will be assigned to political agencies in Washington, D.C., such as congressional staffs, interest groups, executive agencies, legal/judicial offices and political party committees. Maximum credit six units applicable to the major in political science; maximum credit three units applicable to the minor in political science.

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

Prerequisites: Twelve upper division units in political science and consent of the instructor.

Individual study. Maximum credit six units.

**UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)****POL S 515. Research Design and Analysis in Political Science (3)**

Prerequisite: Political Science 201.

Conceptual analysis, measurement, and scaling. Elementary statistical analysis of behavioral data using computers and data processing using one of the major statistical packages.

POL S 516. Statistics for Political Scientists (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.

POL S 596. Topics in Political Science (1-3)

Prerequisite: Upper division or graduate standing.

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

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



OFFICE: Business Administration 403
TELEPHONE: 619-594-6588
FAX: 619-594-5293

Faculty

Emeritus: Silverman
Interim Chair: Wilson

Offered by the Department of Spanish and Portuguese Languages and Literatures

Major in European studies, with emphasis in Portuguese.

See European Studies.

Major in international business, with emphasis in Portuguese.

See International Business.

Minor in Portuguese.

Portuguese Minor

The minor in Portuguese consists of a minimum of 15-17 units taught in Portuguese, six units of which must be in upper division Portuguese courses. Any course taught in English needs department approval to apply to the minor requirements. Recommended: History 552.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Portuguese to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Portuguese 301 or the equivalent level of achievement. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

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

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. **Four years** of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the language requirement.

Courses (PORT)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

Native speakers of Portuguese will not receive credit for taking lower division courses in Portuguese except with advance approval from the department.

All lower division courses in Portuguese are taught in Portuguese.

Portuguese

In the College of Arts and Letters

No credit will be given for lower division courses taken after successfully completing any upper division Portuguese course. No credit will be given for Portuguese 101, 201, 301 taken out of sequence.

PORT 101. Elementary/Intensive Portuguese I (5) 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.

PORT 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.

PORT 296. Experimental Topics (1-4)

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

PORT 299. Special Study (1-3)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division courses in Portuguese are taught in Portuguese unless otherwise stated.

No credit will be given for lower division courses taken after successfully completing any upper division Portuguese course.

PORT 301. Intermediate Portuguese Grammar and Composition (3)

Prerequisites: Portuguese 201; and completion of the General Education requirement in Foundations II.C., Humanities.

Oral and written composition in Portuguese, based on models from modern Portuguese and Brazilian texts.

PORT 401. Advanced Portuguese Grammar and Composition (3)

Prerequisites: Portuguese 301; and completion of the General Education requirement in Foundations II.C., Humanities.

Oral and written composition in Portuguese, based on models from modern Portuguese and Brazilian texts.

PORT 443. Contemporary Luso-Brazilian Civilization (3)

Prerequisite: Portuguese 401.

Historical, cultural socioeconomic, ethnic, geographic, and political factors of modern Brazil and Portugal.

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

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

PORT 534. Portuguese Literature (3)

Prerequisite: Portuguese 401.

Important movements, authors, and works in the literature of Portugal from its beginnings to the present.

PORT 535. Brazilian Literature (3)

Prerequisite: Portuguese 401.

Important movements, authors, and works of the literature of Brazil from the colonial period to modern times.

Professional Studies and Fine Arts

OFFICE: Professional Studies and Fine Arts 212
TELEPHONE: 619-594-5124
FAX: 619-594-4987

Faculty

Faculty assigned to teach Professional Studies and Fine Arts courses are drawn from the Schools of Art, Design and Art History, Music and Dance, and Theatre, Television, and Film.

Media Arts and Technology Minor

To be admitted to the minor in Media Arts and Technology, the student must present a portfolio that includes work in the creative arts and/or creative digital technology.

The minor consists of 24 units to include Professional Studies and Fine Arts 320, 330; six units of Professional Studies and Fine Arts 430; three units selected from Art 157, Dance 181, Music 151, Television, Film and New Media 160, or Theatre 100; and nine lower division units selected from the following in two artistic disciplines: Art 101, 102, 103, 240, Dance 100, 171, 255, 290, Music 105, 110A, 110B, 160, 260, Theatre 107, 115, 240A, 240B, 240C.

Courses in the major department or required for the major may not be used to satisfy requirements for the minor. A minimum of six upper division units must be completed in residence at San Diego State University.

Students must officially declare the minor before taking any upper division courses acceptable for the minor. Students must meet the prerequisites for the minor in effect at the time they declare the minor.

Additional prerequisites may be required for the lower division courses in the minor.

Courses (PSFA)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSE

PSFA 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

PSFA 320. Creativity and Communication in the Arts (3)

Two lectures and two hours of activity.

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

Common elements shared by various artistic forms. Focus on creativity and communication as exemplified in subject, form, function, medium, organization, and style. Attendance at dance, drama, film, music, television, and visual art events required.

“Nothing in life is to be
feared. It is only to be
understood.”

— Madame Curie

PSFA 330. Artistic Practice in the Digital Age (3)

Prerequisite: Upper division standing.

Multidisciplinary artistic practice related to digital technologies with emphasis on works that encourage new media collaboration and interaction with audiences. Critical issues pertinent to art and technology that seek to depict, question, and transform our cultural landscape.

PSFA 430. Art and Technology Workshop (3)

Six hours of activity

Prerequisite: Grade of C or better in Professional Studies and Fine Arts 330.

Collaborative and/or interdisciplinary practical experience in digital media using various approaches to the creative process in the arts. Maximum credit six units.

PSFA 496. Experimental Topics (1-4)

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

Psychology

In the College of Sciences

OFFICE: Life Sciences 110

TELEPHONE: 619-594-5358

UNDERGRADUATE ADVISING OFFICE: Life Sciences 03

TELEPHONE: 619-594-5412

FAX: 619-594-1332

<http://www.psychology.sdsu.edu>

Faculty

Emeritus: Alf, Borges, Bryson, Defran, Dicken, Fenson, Franzini, Gallo, Graham, Grossberg, Harari, Hillix, Hunrichs, Karen, Kass, Koppman, Leckart, Lee, Lynn, McCordick, McDonald, Mollenauer, O'Day, Penn, Plotnik, Psomas, Radlow, Rodin, Rosenbaum, Sattler, Schulte, Scollay, Segal, Smith, Spinetta, Stevens, Turner

Chair: Murphy

Undergraduate Adviser: Ulloa

Professors: Atkins, Cronan, Dunn (IVC), Graf, Hornbeck, Klonoff, Litrownik, Malcarne, Marlin, Marshall, Martin, Matt, McGivern, Murphy, Price (Joseph), Prislín, Reed, Reilly, Riley, Saccuzzo, Sallis, Scott

Associate Professors: Castañeda (IVC), Conte, Friend, Hatstrup, Mattson, Mueller, Price (Judy), Thomas, Velasquez

Assistant Professors: Alfonso-Reese, Devos, Ehrhart, K., Ehrhart, M., Gallo, Roesch, 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 Organizational Psychology, Public Health, Social Ecology, Education,

Program Development, Criminal Justice, Law, Administrative Social Work, Human Resource Development, and Medicine.

What is the Ph.D. in psychology? Graduate work which leads to the Ph.D. trains one to be a scientific psychologist, to study human behavior and mental processes, and to teach at the university. The Ph.D. in clinical psychology also includes supervised training in clinical practice. The time commitment for earning a Ph.D. degree is considerable, and these programs are highly competitive. Only a small percentage of psychology graduates will in fact go on to earn the Ph.D. in psychology.

Impacted Program

The psychology major is an impacted program. To be admitted to the psychology major, students must meet the following criteria:

- a. Complete the following nine units: Psychology 101, 270, and Biology 100. Complete an additional three units from the following courses: Psychology 201, 211, 230, 260, 271. The required 12 units must be completed with a grade of C or higher. With the exception of Psychology 201, these courses cannot be taken for credit/no credit (Cr/NC).
- b. Have a cumulative GPA of 2.40 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Advising

All students planning to major in psychology are urged to make an appointment at the Psychology Undergraduate Advising Office (Life Sciences 03) during their first semester of residence at SDSU. Students who plan to transfer as psychology majors should make an appointment before registering. The Advising Office is open year round and the telephone number is 619-594-5412.

Psychology Major

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

(Major Code: 20011)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 50 units in psychology courses can apply to the degree.

A minor is not required for this major. However, depending on career goals, students may wish to consider minors in areas such as biology, business, public administration, recreation, social work, statistics, and others.

General Requirements for the Major

Preparation for the Major. Psychology 101, 201, 211, 230, 260, 270, 271, and Biology 100. (20 units). With the exception of Psychology 201, these prerequisite courses may not be taken Cr/NC. The minimum grade in each class is C or higher. **NOTE:** Psychology majors may use Psychology 270 to satisfy Mathematics/Quantitative Reasoning General Education requirement. **NOTE ALSO:** A college level statistics course will be accepted from another department in lieu of Psychology 270.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements." Psychology majors are urged to discuss scheduling the language requirement with an adviser in the Psychology Undergraduate Advising Office.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

The Major. Methods. All majors must complete Psychology 301 or 410 or both. Psychology 301 is suitable for most psychology majors, including those planning to enter the job market after graduation, those undecided about career plans, and those planning to pursue graduate work in related fields such as counseling.

Students planning to pursue graduate work in psychology should take psychology 370 and 410 as early as possible. **Note:** Students enrolling in these courses must have earned a B or better in Psychology 270 or its equivalent. Students unsure of their statistical or computer competence may wish to take Psychology 301 before enrolling in Psychology 370 or 410.

Breadth. All majors must complete 12 units selected from a list of content courses covering areas of biological, developmental, abnormal, social, personality, cognitive, and sensation/perception.

Requirements for the Major. A minimum of 31 upper division units in psychology to include Psychology 301 or 410 and 12 units, including at least three units from each of the following groups. The remaining three units are selected from Group II or Group III.

Group I. One of the following:

Psychology 340 or 344.

Group II. At least one of the following:

Psychology 319;

Psychology 331 or 332;

Psychology 333 or 350.

Group III. At least one of the following:

Psychology 360 or 361 or 362;

Psychology 380;

Psychology 388.

Recommendations for Electives

Employment with the B.A. Electives should be selected in accord with general career goals. Students interested in health and human services may take courses that focus on psychological health and well-being or issues related to child development. Those interested in business may take courses that focus on industrial, organizational and consumer issues or that emphasize computer skills, measurement, data analysis, or some combination of these.

Masters programs in counseling. At SDSU, a Master of Science degree in Counseling is offered by the College of Education and a Master of Social Work degree is offered by the College of Health and Human Services. For these programs students have considerable latitude in the selection of psychology electives, but it is important to develop an appropriate profile of volunteer or work experience.

Graduate programs in psychology. Most masters or doctoral programs in psychology require students to have strong research profiles. SDSU psychology majors can accomplish this by completing Psychology 370, 410, and becoming involved as early as possible in faculty-sponsored research.

Psychology Minor

The minor in psychology consists of 19-21 units selected from one of the following areas:

Industrial/Organizational: Psychology 101, 270, and 271 or equivalent; 12 units of upper division psychology to include Psychology 319, 320, 321, and 340. Students with credit in Management 350 or Public Administration 340 may not enroll in Psychology 321, but may select another upper division psychology course. (19 units)

Personality and Social: Psychology 101, 230 and 211 or 260; 12 units of upper division psychology courses of which nine must be selected from Psychology 331 or 332 or 333, 340, 350 and 351. (21 units)

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (PSY)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Note: Many psychology courses have enforced prerequisites, meaning the student must provide proof of having completed the prerequisite to the instructor in order to remain enrolled. Students who have not completed an enforced prerequisite and who fail to drop the class officially will be assigned the grade of "WU," which is equivalent to an "F." Before enrolling in psychology courses, students should consult the catalog to determine that they have completed any enforced prerequisites.

LOWER DIVISION COURSES

PSY 101. Introductory Psychology (3) I, II

Facts, principles, and concepts which are basic to understanding human behavior.

PSY 201. Introduction to the Psychology Major (1) Cr/NC

Prerequisites: Psychology 101 and completion of 30 units.

Exposure to information about careers in psychology. Includes the identification of career-related strengths and interests and information on postbaccalaureate options in psychology and related fields. Introduction to resources in Psychology Undergraduate Advising and Career Services.

PSY 211. Learning (3) I, II

Prerequisite: Psychology 101.

Basic principles and research in animal and human learning.

PSY 230. Developmental Psychology (3) I, II

Prerequisite: Psychology 101. **Proof of completion of prerequisite required:** Copy of transcript.

Psychological development of normal individual from conception through childhood, adolescence, and maturity. Emphasis on interdependence of various periods of the individual's life. Not open to students with credit in Child and Family Development 270 or General Studies 130.

PSY 250. Faculty Student Mentoring Program (1) 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. Maximum credit two units.

PSY 260. Introduction to Physiological Psychology (3) I, II

Prerequisites: Psychology 101 and Biology 100. **Proof of completion of prerequisites required:** Copy of transcript.

Elementary physiology of the nervous system. Physiological mechanisms underlying the psychological phenomena of sensation, perception, emotion, arousal, motivation, learning and memory, and cortical specialization.

PSY 270. Statistical Methods in Psychology (3) I, II

Prerequisites: Psychology 101; concurrent registration in Psychology 271; satisfaction of the Entry-Level Mathematics requirement. **Proof of completion of prerequisites required:** Copy of ELM score or verification of exemption, and verification of registration in Psychology 271.

Quantitative methods in psychology for producing, analyzing, and interpreting data. Sampling, basic research designs, describing distributions through graphs and quantitative indices, linear correlation and regression, applications of normal probability curve, confidence intervals, and tests of significance. Students with credit or concurrent registration in the following lower division statistics courses will be awarded a total of four units for the two (or more) courses: Psychology 270; Biology 215; Civil Engineering 160; Economics 201; Political Science 201; Sociology 201; Statistics 119 and 250.

PSY 271. Data Analysis in Psychology (1) I, II

Two hours of activity in computer laboratory.

Prerequisite: Satisfaction of the Entry-Level Mathematics requirement and credit or concurrent registration in Psychology 270. **Proof of completion of prerequisite required:** Verification of registration in Psychology 270 or copy of transcript.

Statistical and graphic analysis and interpretation of psychological data using computer technology. Activities involve statistical software such as SPSS for Macintosh (Windows) as well as standard spreadsheets.

**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.*

PSY 301. Introduction to Research Methods in Psychology (4) I, II

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.

**PSY 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.

PSY 319. Industrial and Organizational Psychology (3) I, II

Prerequisites: Psychology 101 and 270. **Proof of completion of prerequisites required:** Copy of transcript.

Broad-based survey of various content areas of industrial (e.g. selection, appraisal) and organizational (e.g. motivation, leadership) psychology. Underlying psychological principles that influence human behavior in the workplace. Not open to students with credit in Psychology 320 or 321.

PSY 320. Personnel and Industrial Psychology (3) I, II

Prerequisites: Psychology 319. **Proof of completion of prerequisites required:** Copy of transcript.

Psychological principles applied to industrial problems of selection, placement and training. Students who completed Psychology 321 prior to fall 2003 will be exempt from the Psychology 319 prerequisite during 2004-05 academic year.

PSY 321. Organizational Psychology (3) I, II

Prerequisite: Psychology 319. **Proof of completion of prerequisites required:** Copy of transcript.

Human behavior in context of organizational life. Factors related to effectiveness of individuals and groups within organizations, including organization design, leadership and control, motivation, cooperation, and conflict. Not open to students with credit in Management 350 or Public Administration 340. Students who completed Psychology 320 prior to fall 2003 will be exempt from the Psychology 319 prerequisite during 2004-05 academic year.

PSY 331. Psychology of Infant and Child Development (3) I, II

Prerequisite: Psychology 101 and 230. **Proof of completion of prerequisite required for Psychology 230:** Copy of transcript.

Psychological development of normal child from infancy through childhood focusing on physical, social, cognitive, and linguistic aspects of development. Not open to students with credit in Psychology 432 covering this topic.

PSY 332. Psychology of Adolescent and Early Adult Development (3) I, II

Prerequisites: Psychology 101 and 230. **Proof of completion of prerequisite required for Psychology 230:** Copy of transcript.

Psychological development of normal individual from adolescence through early adulthood focusing on physical, social, and cognitive aspects of development.

PSY 333. Developmental Psychopathology (3)

Prerequisites: Psychology 101 and 230. **Proof of completion of prerequisite required for Psychology 230:** Copy of transcript.

Cognitive, affective, and social aspects of abnormal development from childhood through adolescence. Consideration, within a developmental framework, of etiological theories and factors, problem expression and treatment issues. Not open to students with credit in Psychology 453 covering this topic.

PSY 340. Social Psychology (3) I, II

Prerequisites: Psychology 101; completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required.

The major problems and findings concerning group behavior and group membership, the socialization of the individual, and processes of social interaction.

PSY 344. Psychology and Culture (3)

Prerequisite: Psychology 101.

Impact of culture in each of psychology's major areas, theories, and empirical findings.

PSY 345. Chicana and Chicano Psychology (3)

Prerequisite: Psychology 101.

Evolution of psychology of Chicanos with emphasis on understanding underlying roots and foundations. Empirical research conducted with Chicanos in areas of psychology, psychiatry, and mental health.

PSY 350. Abnormal Psychology (3) I, II, S

Prerequisites: Psychology 101; completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required.

Causes and treatment of abnormal behavior with emphasis on major behavior disorders.

PSY 351. Psychology of Personality (3), I, II, S

Prerequisites: Psychology 101; completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required.

Major theoretical approaches to individual differences and the study of the person. Techniques of personality assessment. Selected research findings.

PSY 355. Psychology of Human Sexual Behavior (3)

Prerequisite: Psychology 101.

Evaluation of behavioral and physiological data of normal, aberrant, and dysfunctional human sexual behavior, including description of available treatment methods.

PSY 360. Behavioral Neuroscience (3)

Prerequisites: Psychology 101 and 260. **Proof of completion of prerequisites required:** Copy of transcript.

Biological and physiological underpinnings of behavior: genetics, hormones, transmitters, plasticity/regeneration, development, and metabolism/nutrition. Analysis of their role in normal behavior, psychopathology, neurological disorders, and treatment of behavioral disturbances.

PSY 361. Neuropsychology (3)

Prerequisites: Psychology 101 and 260. **Proof of completion of prerequisites required:** Copy of transcript.

Characterization of human brain-behavior relationships derived from neuropsychometric studies of healthy, neuropsychiatric and brain damaged populations. Emphasis on functional neuroanatomy and the effects of abnormal brain development and disease on processes such as cognition, memory, language, visual-spatial, and other functions.

PSY 362. Cognitive Neuroscience (3)

Prerequisites: Psychology 101 and 260. **Proof of completion of prerequisites required:** Copy of transcript.

Functional organization of the human brain, including sensorimotor and cognitive systems and their functional interactions; development and evolution; normal and pathological plasticity. Approaches applied to healthy human brain, such as neuroimaging and event-related potentials.

PSY 365. Drugs and Behavior (3)

Prerequisite: Psychology 260.

Fundamentals of regulation, administration, tolerance, dependence, and physiological activity of drugs. Effects of stimulants, depressants, opiates, psychedelics, and psychotherapeutic drugs on the nervous system and on cognitive, personality, and behavioral functioning.

PSY 370. Psychological Testing and Measurement (3) I, II

Prerequisites: Grade of B or better in Psychology 270 or equivalent statistics course; grade of B or better in Psychology 301. **Proof of completion of prerequisite required:** Copy of transcript. Note: Students electing to take Psychology 410 for the methods requirement may petition waiver of the Psychology 301 prerequisite by permission of the undergraduate adviser.

Measurement theory and the basic principles of testing. Selection, construction and critical evaluation of group tests of intelligence, personality, aptitude, interest and achievement.

PSY 380. Cognitive Psychology (3)

Prerequisite: Psychology 101. Recommended: Psychology 211.

Theory and research on attention, learning, memory, thinking, understanding, and language.

PSY 388. Sensation and Perception (3)

Prerequisites: Psychology 101 and 260.

Theory and research in sensory and perceptual processes.

PSY 407. Health Psychology (3) I, II

Prerequisites: Psychology 211 and 270. **Proof of completion of prerequisites required:** Copy of transcript.

Behavioral components of major illnesses and causes of death and disability. Primary prevention of health problems through behavior change and psychological features of the health care system.

PSY 410. Laboratory in Experimental Psychology (5) I, II

Two lectures and six hours of activity.

Prerequisites: Psychology 211, a grade of B or better in Psychology 270 or equivalent statistics course, and Psychology 271. **Proof of completion of prerequisites required:** Copy of transcript.

Understanding of experimental design, quantitative methods, and experimental reports as they are applied to all areas of psychology.

PSY 412. Advanced Laboratory in Social Psychology (5) (Offered only at IVC)

Two lectures and six hours of activity.

Prerequisites: Psychology 410. **Proof of completion of prerequisites required:** Copy of transcript.

Experimental literature, assigned and original laboratory projects in the field of social psychology.

PSY 442. Prejudice and Stereotypes (3)

Prerequisite: Psychology 340. **Proof of completion of prerequisite required:** Copy of transcript.

Classic and contemporary theories and research on prejudice and stereotyping to include origin and forms of phenomena, consequences, and approaches aimed at reducing them.

PSY 446. Advanced Topics in Social Psychology (3)

Prerequisite: Psychology 340. **Proof of completion of prerequisite required:** Copy of transcript.

Selected areas in social psychology. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

PSY 452. Introduction to Counseling and Therapy (3)

Prerequisite: Psychology 350 or 351. **Proof of completion of prerequisite required:** Copy of transcript.

Theory, methods, and research in psychological approaches to personality and behavior change. Not open to students with credit in Counseling and School Psychology 660.

PSY 456. Psychology of Death and Bereavement (3)

Latest psychological research and clinical practice in the area of death and dying, geared to assisting the student in appropriate ways of aiding both the dying and the bereaved in coming to terms with death.

PSY 470. Intermediate Statistics for Psychological Research (3)

Prerequisites: Grade of B or better in Psychology 270 and 271; grade of B or better in Psychology 301 or 410.

Theoretical foundations of statistics including probability theory, distribution theory, and statistical inference. Model-based statistical comparisons. Application of statistical theory to psychological research questions.

PSY 491. Academic or Psychological Counseling Experiences (3) Cr/NC

Prerequisites: Upper division psychology major with a 3.0 minimum grade point average and consent of the psychology undergraduate coordinator.

Individual supervision of academic or psychological counseling experiences, geared to acquisition of counseling and communication skills. May be repeated with approval of psychology undergraduate coordinator. Maximum credit six units. No more than 12 units of courses numbered Psychology 491, 494, 495, 497, 499 may be counted toward the major.

PSY 492. Responsible Conduct in Scientific Research (1) Cr/NC

Prerequisite: At least one introductory level science course.

Responsible conduct in scientific research. Topics include conflict of interest, plagiarism, reporting of scientific results, authorship, responsible use and care of animals, responsible use of human subjects.

PSY 494. Special Study: Techniques for Teaching and Tutoring in Psychology (2) Cr/NC

Prerequisite: Consent of instructor.

Practical knowledge and experience in psychology instruction and advanced content in a specific area of psychology. May be repeated with new content. Maximum credit four units. No more than 12 units of courses numbered Psychology 491, 494, 495, 497, 499 may be counted toward the major.

PSY 495. Readings and Practice in Companionship Therapy (3) Cr/NC I, II

Prerequisites: Psychology 350 and three units from Psychology 230, 340, or 351. **Proof of completion of prerequisites required:** Copy of transcript.

Work with troubled or potentially troubled clients from selected community agencies. May be repeated with approval of psychology undergraduate coordinator. Maximum credit six units. No more than 12 units of courses numbered Psychology 491, 494, 495, 497, 499 may be counted toward the major.

PSY 496. Selected Topics in Psychology (1-4)

Prerequisite: Psychology 101.

Intensive study in specific areas of psychology. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

PSY 497. Senior Project (1-3) I, II

Prerequisites: Twelve units of psychology and consent of instructor.

Individual investigation and APA-style report on a research project. Maximum credit six units. No more than 12 units of courses numbered Psychology 491, 494, 495, 497, 499 may be counted toward the major.

PSY 498. Undergraduate Honors Thesis (3-6)

Prerequisites: Psychology 410, 3.5 overall GPA, 3.75 GPA in major, and consent of honors coordinator.

Directed research in psychology and completion of honors thesis. Required of students graduating with a Certificate of Recognition of Psychology Honors Thesis. May be repeated for a maximum of six units.

PSY 499. Special Study (1-3) Cr/NC I, II

Individual study, including library or laboratory research and a written report. Maximum credit six units. No more than 12 units of courses numbered Psychology 491, 494, 495, 497, 499 may be counted toward the major.

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

PSY 501. History of Psychology (3)

Limited to graduate students or psychology majors with senior standing.

The historical background of modern psychology.

PSY 502. Philosophical Issues in Psychology (3)

Prerequisite: Six units of psychology.

Mind-brain relationship and other topics at the interface of psychology and philosophy.

PSY 547. Applied Social Psychology (3)

Prerequisite: Psychology 340.

Problems, methods, and ethical issues related to applied social psychology. Applications to various settings to include educational system, business and industry, health settings, legal system, mass communication, and the environment.

PSY 561. Advanced Neuropsychology (3)

Prerequisite: Psychology 360 or 361 or grade of B or better in Psychology 260.

Biological bases of neuropsychological function and dysfunction, relationships between brain structure and function, neuropsychological assessment tools.

PSY 564. Seminar in Psychopharmacology and Behavioral Disorders (3)

Prerequisite: Grade of B or better in Psychology 260.

Drugs as cause and cure of behavioral problems. A review of drugs commonly used to change behavior in primary schools, psychiatric centers, in-home programs and mental hospitals. (Formerly numbered Psychology 764.)

PSY 587. Advanced Principles of Learning and Cognition (3)

Prerequisites: Psychology 211, 270, and 380.

Empirical data, basic principles and theoretical positions of major theorists in learning and cognitive psychology.

PSY 596. Selected Topics in Psychology (1-3)

Prerequisites: Psychology 101 and consent of instructor.

Intensive study in specific areas of psychology. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

**GRADUATE COURSES
Refer to *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

FAX: 619-594-1165

A Member of the National Association of Schools of Public Affairs and Administration (NASPAA).

Faculty

Emeritus: Boostrom, Calavita, Clapp, Dobbs, Gilbreath, Gitchoff, Henderson, Kitchen, Kochanski, Lee, Sparrow

Director: Rea

Professors: Caves, Gazell, Herzog, Pugh, Rea, Ryan, R., Sutton, Wilson

Associate Professors: Coates, McIlwain, Pearl, Sabbath, Stock

Assistant Professors: Baer, Franco, Nurge, Ryan, S.

Offered by the School of Public Administration and Urban Studies

Master of City Planning degree.

Master of Public Administration degree.

Concentration in city planning.

Concentration in criminal justice administration.

Master of science degree in criminal justice and criminology. (Jointly with the College of Arts and Letters.)

Major in criminal justice administration with the B.S. degree in applied arts and sciences. (Refer to this section of the catalog on Criminal Justice Administration.)

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

Emphasis in city planning.

Major in urban studies with the B.A. degree in liberal arts and sciences. **See** Interdisciplinary Programs.

Minor in public administration.

Certificate in fire protection administration (offered only in Extension).

Certificate in public administration (available at Imperial Valley Campus only).

Certificate in transborder public administration and governance (refer to *Bulletin of the Graduate Division*).

The Major

Today, more than ever before, the nation is in need of effective leadership and competence in the administration of public affairs. The growth of all levels of government and public service organizations and their increasing responsibilities in a complex society have led directly to the need for more capable public administrators. The primary purpose of the public administration major is to provide knowledge and skills for students who wish to prepare themselves for management careers in government, community agencies, private not-for-profit organizations, planning and consulting firms, and private sector organizations that work in partnership with the public sector.

The undergraduate public administration major is an interdisciplinary program. In addition to the courses taken within the department, provisions have been made for the student to select additional courses in areas as diverse as economics, sociology, social welfare, political science, and psychology. Required preparatory courses for the major include classes in accountancy, economics, information and decision systems, political science, and statistics.

Career opportunities in public administration can be found throughout the public and private sectors, and the future is represented by an expanding job market. The Public Administration Center within the School of Public Administration and Urban Studies provides a comprehensive file of current job openings locally, throughout California, and across the country.

Upon graduation, students have secured a wide variety of administrative positions within government, the private sector, and community agencies. For example, graduating students have recently been placed with city personnel and finance departments, county operating departments, special districts, hospitals, and consulting firms.

Impacted Program

The public administration major is an impacted program. To be admitted to the public administration major, students must meet the following criteria:

- Complete 18 units in the following courses with a grade of C or higher: Accountancy 230; Economics 101 and 102; Information and Decision Systems 180; Political Science 102; and a three-unit course in elementary statistics. These courses cannot be taken for credit/no credit (Cr/NC);
- Complete a minimum of 60 transferable semester units;
- Have a cumulative GPA of 2.40 or higher;
- Students not meeting the minimum GPA requirement may petition for special consideration.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Public Administration Major

**With the B.A. Degree in Applied Arts and Sciences
(Major Code: 21021)**

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Preparation for the Major. Public Administration 200, Accountancy 230, Information and Decision Systems 180, Economics 101 and 102, Political Science 102, and a three-unit course in statistics. (21 units)

These prerequisite courses may not be taken Cr/NC. The minimum grade in each class is C.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Public Administration 301, 310 or 312 or 315, 330, 340, 450, 460, 497 or 498; and 15 units selected with the approval of an adviser from the public administration faculty. Note: Students may only double count **one** elective course also taken to satisfy the university upper division Explorations requirement. Within this program, students may specialize in such areas as personnel and labor relations, urban management, urban planning, public finance and budgeting, information

systems, and environmental management. Interested students must seek guidance from a public administration program faculty adviser. 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 (Major Code: 21021)

Preparation for the Major. Public Administration 200, Accountancy 230, Economics 101 and 102, Information and Decision Systems 180, Political Science 102, and a three-unit course in statistics. (21 units)

These prerequisite courses may not be taken Cr/NC. The minimum grade in each class is C.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Public Administration 301, 310, 330, 340, 450, 460, 497 or 498; and Public Administration 320, 420, 525, and two courses selected from Public Administration 341, 350, 510, and 512. 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

(Imperial Valley Campus)

To receive the certificate a candidate must complete an approved program of 18 units with a minimum grade point average of 2.5. Up to two public administration courses taken at another institution may be included among the required courses with approval of the program adviser.

Requirements include Public Administration 301, 330; three units selected from Public Administration 340, 341, or 450; and nine units in an area of specialization selected with the approval of the adviser.

Courses (P A)

Refer to *Courses and Curricula and University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSE

P A 200. The Urban Scene (3) I, II

Key issues in public administration, social policy, and city planning. Emphasis on government structure and public decision-making process, organizational behavior, effectiveness of criminal justice policies, zoning, and land use considerations.

UPPER DIVISION COURSES (Intended for Undergraduates)

P A 301. Concepts and Issues in Public Administration (3) I, II

Theory and practice of governmental administration in differing environments, role of administrators in public policy, issues facing administrators, techniques of administration.

P A 310. Management of Urban Governments (3) I, II

Problems of local units of government in the urban environment. Organization and function of local agencies. Emphasis on California.

P A 312. Management of State Governments (3) I

Administrative and constitutional problems of state management in the American federal system. Emphasis on California.

P A 315. Management of the Federal Government (3) II

Prerequisite: Public Administration 301.

Problems in the administration of the federal government. Leadership, specialization, unity of command, and oversight.

P A 320. Introduction to Urban Planning (3) I, II

An introduction to community planning: regional, county, and city. Consideration of the master plan including its purposes, contents, and method of adoption.

P A 330. Public Personnel Administration (3) I, II

Analysis of personnel problems. Supervision and management of public employees and public organizations in an age of change.

P A 340. Administrative Behavior (3) I, II

Social, psychological, and behavioral theories of organization; concepts of administrative leadership; organization and the individual; emphasis on governmental organizations. Not open to students with credit in Psychology 321.

P A 341. Administrative Management (3) I, II

Areas and problems of administrative research. Management and operations in public organizations including forecasting, resource allocation, planning and administration of programs, preparation of administrative reports. Quantitative models of managerial decision making.

P A 350. Contemporary Urban Issues (3)

Focus on urban areas and urbanism from a public policy perspective; course examines and critiques the physical, economic, social and political dimensions of contemporary American cities utilizing a multidisciplinary approach.

P A 420. Methods of Analysis in City Planning (3) II

Prerequisites: Public Administration 320 and basic statistics course.

Methods of primary data collection and analysis of secondary data sources for problem solving in city planning, techniques associated with urban design and urban development.

P A 440. Microcomputer Applications in Criminal Justice and Public Administration (3)

Two lectures and three hours of laboratory.

Prerequisite: Limited to criminal justice administration and public administration majors.

Operation and use of microcomputer hardware and software in criminal justice. Laboratory instruction focuses on applicability of programs to criminal justice operations.

P A 450. Fiscal and Budgetary Policy (3) I, II

Prerequisites: Public Administration 301, Economics 101 and 102.

Policies of fiscal administration and budgeting; political implications of the governmental budget process; revenue, debt, and treasury management; the functions of accounting and financial reporting.

P A 460. Administration and Public Policy Development (3) I, II

Process of formulating public policy with emphasis on the role of public agencies.

P A 475. The American City in the Cinema (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.)

P A 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.

P A 485. Planning and Public Policy in U.S.-Mexico Border Region (3)

Prerequisite: Public Administration 301.

City planning, regional, and public policy issues in the binational Mexico-U.S. border region. Policy analysis: macro/regional and micro/urban.

P A 490. Community Organizing in a Diverse Society (3) I, II

Prerequisite: Upper division standing.

Understanding of barriers, strategies, and benefits of community organizing in diverse communities. Studies of successful "grassroots" leaders and their political and cultural environments for purpose of analyzing and applying concepts of organizing.

P A 496. Experimental Topics (1-4)

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

P A 497. Investigation and Report (3) I, II

Prerequisite: Consent of instructor.

Analysis of special topics. Admission by permission of instructor.

P A 498. Internship in Public Administration (2-6) Cr/NC I, II

Prerequisites: Public Administration 301, 330, 340, 341, 450, and all lower division required courses; senior standing and a "B" (3.0) average in the major.

Students will be assigned to various government agencies and will work under joint supervision of agency heads and the course instructor. Participation in staff and internship conferences. Maximum credit six units.

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

Prerequisite: Twelve upper division units in public administration. Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

P A 510. Intergovernmental Relations in the United States (3) I

Prerequisite: Public Administration 310 or 312 or 315.

Constitution, political and administrative characteristics of American federalism, including regionalism, interstate compacts, and grants-in-aid.

P A 512. The Metropolitan Area (3)

Prerequisite: Public Administration 310 or 312.

Problems of government and administration arising from population patterns and physical and social structures of metropolitan areas.

P A 520. Decision Making in the Urban Community (3)

Prerequisite: Public Administration 310.

Processes of decision making in the management of urban communities.

P A 525. The U.S. City Planning Process (3) I

Prerequisite: Public Administration 320 or graduate standing.

Description and critique of traditional city planning process; styles and roles of city planner; city planning values and ethics.

P A 530. Negotiation and Bargaining in the Public Service (3)

Prerequisite: Public Administration 301.

Specific issues such as strategies, the effects of threat, the physical setting, use of a third-party observer and theories of advocacy. Emphasis on analyzing simulations of the bargaining process and developing effective negotiation skills.

P A 531. Governmental Employer-Employee Relations (3)

Prerequisite: Public Administration 330.

Historical development, legal basis, and organizational implications of governmental employer-employee relations; emphasis on California local government.

P A 540. Public Administrative Systems Analysis (3)

Prerequisites: Public Administration 301 and a statistics course.

Systems and organization analysis; work standards and units; procedures analysis; administrative planning.

P A 550. Budgetary and Financial Administration in the Public Sector (3) II

Prerequisites: Public Administration 301 and 450.

Management trends in public sector financial administration; budgetary procedures and techniques; control and monitoring systems. Cash management, capital projects management, debt administration, disbursement, funds management, and auditing.

P A 580. Comparative Public Administration (3)

Prerequisite: Public Administration 301.

Administrative organization and process of selected foreign and American governments. Analysis of the cultural basis of administrative systems.

GRADUATE COURSES IN PUBLIC ADMINISTRATION AND URBAN STUDIES and CITY PLANNING Refer to *Bulletin of the Graduate Division*.

OFFICE: Professional Studies and Fine Arts 431
TELEPHONE: 619-594-5110
FAX: 619-594-3320

Recreation

In the College of Professional Studies and Fine Arts

Accredited by the National Recreation and Parks Association.

(**Note:** Students graduating from this program are immediately eligible to sit for the examination to become a Certified Leisure Professional and thereby acquire this valuable credential for professional advancement.)

Faculty

Emeritus: Duncan, Hanson, Hutchinson, Peterson, Rankin
Chair: Lamke
Professors: Beck, L., Dixon, Gattas, Lamke
Associate Professor: Testa
Assistant Professor: Sasidharan
Lecturers: Beck, A., Gabay, Sipe

Offered by the Department of Recreation, Parks and Tourism

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

- Emphasis in outdoor recreation.
- Emphasis in recreation systems management.
- Emphasis in recreation therapy.

Minor in recreation.

The Major

A commitment to working with people to enhance the quality of their lives is important to a study of recreation.

Increasingly diverse opportunities are available in the park, recreation and tourism profession. The major offers a sufficiently wide range of courses for students who may wish to enter diverse recreation, park, or human services fields.

Students in this major elect one of three areas of emphasis. The outdoor recreation emphasis stresses conservation, natural science, ecology, and recreation/park administration. Society's efforts to sustain a balance between the environment and recreational use are studied.

Recreation systems management stresses the effective organization, administration and supervision of recreation, park, and tourism agencies, both public and private.

Recreation therapy prepares students to work 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.

Recreation Administration Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 21031)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

The major in recreation administration must be planned with an emphasis in one of the following three areas: (1) Outdoor Recreation, (2) Recreation Systems Management, or (3) Recreation Therapy.

A minor is not required with this major.

Emphasis in Outdoor Recreation

Preparation for the Major. Recreation 101, 107, 284; Biology 100, 100L; Geography 101; Geological Sciences 100, 101; Psychology 101; Sociology 101. (27 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Recreation 396W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 54 upper division units to include Recreation 304, 305, 351, 464, 485, 487, 489, 498 (12 units), 561, 566, 575; Geography 370; and nine units selected from Biology 327; Geography 572, 575; Geological Sciences 301; History 441; Political Science 334; Psychology 340; Recreation 450, 477, 496.

Emphasis in Recreation Systems Management

Preparation for the Major. Recreation 101, 107, 284; Information and Decision Systems 180; Psychology 101; Sociology 101; and six units selected from Accountancy 230; Economics 101; Finance 240; Information and Decision Systems 290. (25 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Recreation 396W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 51 upper division units to include Recreation 304, 305, 351, 464, 498 (12 units), 561, 566, 575; nine units selected from Recreation 340, 450, 470, 475, 477, 485, 489, 580; and nine units selected from Counseling and School Psychology 400; Marketing 370, 371, 373; Psychology 321, 340; Public Administration 301, 340, 350, 460; Sociology 355, 444.

Emphasis in Recreation Therapy

Preparation for the Major. Recreation 101, 107, 284; Biology 212; Information and Decision Systems 290; Psychology 101; Social Work 110; Sociology 101. (26 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Recreation 396W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 54 upper division units to include Recreation 304, 305, 351, 361, 371, 464, 498 (12 unit section), 561, 566, 575; Biology 336; Psychology 350; and nine units selected from Counseling and School Psychology 400; Exercise and Nutritional Sciences 301; Psychology 333, 351, 452; Sociology 436, 441, 443, 444, 543. Note: To satisfy professional certification programs, completion of nine units should include one upper division course specifically oriented to "human growth and development" and one upper division course in a "helping area" outside of psychology, e.g. counseling, sociology, special education, or human services.

Recreation Minor

The minor in recreation consists of a minimum of 22 units to include Recreation 101, 107, 304, 305, and nine additional upper division units selected from Recreation 340, 351, 361, 371, 464, 475, 485, 496, 575, 580. Prerequisite to the minor includes Biology 100.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (REC)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

REC 101. Introduction to Recreation Systems (3) I, II

Basic role of recreation and park systems in today's society. Scope of recreation services, their history, philosophy, facilities, programs, personnel and evaluation.

REC 107. Recreation Planning and Leadership (4) I, II

Three lectures and three hours of laboratory.

Theories, principles and techniques of group leadership, group dynamics, communication, problem solving, creativity, program planning, and publicity as they relate to selected recreation systems.

REC 284. Supervised Field Work (3) Cr/NC I, II, S

Prerequisites: Consent of instructor or department chair, credit or concurrent registration in Recreation 107, and 125 hours experience in recreation leadership.

Observation and participation in community recreation leadership. Practical experience in a variety of recreational settings. Eight hours per week at an agency.

REC 296. Experimental Topics (1-4)

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

UPPER DIVISION COURSES (Intended for Undergraduates)

REC 304. Challenges of Leisure (3) 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.)

REC 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.)

REC 340. Conduct of Recreational Sports (3) I, II

Three lectures plus outside practical experience in the conduct of recreational sports programs.

Organization of competition, community sports programs, administration of intramural athletics, and techniques of officiating.

REC 351. Recreation for Special Populations (3) I, II

Analysis of the sociopsychological aspects of special populations and their implications for leisure pursuits. Field trips may be included.

REC 361. Scientific Foundations of Recreation Therapy (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.

REC 371. Professional Foundations of Recreation Therapy (3) I, II

Prerequisite: Recreation 351 required for recreation majors; open to others with consent of instructor.

Analysis of present-day policies, programs, implementation and future aspects of professional principles of recreation therapy.

REC 396W. Writing in Recreation Settings (3) I, II

Prerequisite: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Theory and practice of writing in the field of recreation and parks with application to various settings.

REC 404. Cross-Cultural Perspectives of Tourism (3) I, II, S

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

Concepts, definitions, and measures of essential cultural components of tourism. Integrated view of interrelated socio-cultural tourism issues with an understanding and appreciation of diverse cultures.

REC 450. Camp and Aquatic Administration (3)

Prerequisite: Recreation 101.

Management of resident, day and travel camps and swimming pools, beaches, lakes and marinas; legal requirements, health and safety standards, finances, programming, maintenance, and planning.

REC 464. Supervision of Recreation and Park Agencies (3) I, II

Prerequisite: Recreation 107.

Interagency relations, personnel policies and procedures, volunteer coordination, supervisory techniques, community organization, public relations in public, private and commercial settings.

REC 470. Recreational Travel and Tourism Management (3) I

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.

REC 475. Commercial Recreation and Attractions Management (3) I

Analysis of commercial recreation field, including design, development, programming and marketing aspects of various commercial recreation enterprises.

REC 477. Tourism Planning (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.

REC 484. Directed Leadership (3) Cr/NC I, II, S

One lecture and eight hours of supervised activity.

Prerequisite: Recreation 284.

Supervised leadership experience in public and private recreation agencies. Maximum credit six units.

REC 485. Outdoor Recreation Planning and Policy (3) II

Nature and scope of recreation in nonurban areas. Public demand for recreation and its impact on natural resources. Management, planning, research and operation of regional and national park and recreation areas.

REC 487. Outdoor Education and Environmental Interpretation (3)

Prerequisite: Recreation 101.

Philosophy, theory, methods, and scope of outdoor education and environmental interpretation.

REC 489. Outdoor Leadership and Adventure Programming (3)

Prerequisite: Recreation 305.

Theoretical principles and experience in leadership, judgment, and decision making in outdoor adventure programming.

REC 496. Experimental Topics (1-4)

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

REC 498. Internship in Recreation Systems (6 or 12) Cr/NC I, II, S

Twenty off-campus hours required per week for 6-unit program, or 40 off-campus hours required per week for 12-unit programs.

Prerequisites: Consent of instructor or department chair, completion of all required lower division recreation courses, and completion of both Standard or Multimedia First Aid certificate and CPR certificate by end of semester.

Students will be assigned to various governmental, commercial, private or medical agencies conducting recreation programs. Variety of experiences in supervision and administration. Maximum credit 12 units.

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

Prerequisite: Consent of special study adviser.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

REC 561. Legal Aspects and Research in Recreation and Parks (3)

Prerequisite: Recreation 464.

Legal obligations and research pertinent to delivery of leisure services. Liability and risk management, open space acquisition and preservation, constitutional guarantees, administrative regulations, contracts, and criminal law. Methods of investigation and evaluation, data analysis and reporting in relation to research needs in recreation, parks and tourism. (Formerly numbered Recreation 560.)

REC 566. Administration and Fiscal Aspects in Recreation and Parks (3)

Prerequisite: Recreation 464.

Organizational behavior, planning, policy development, and future trends in recreation systems. Basic principles of fiscal management including budgeting, record keeping, and marketing as applied to recreation, parks and tourism agencies. (Formerly numbered Recreation 565.)

REC 575. Designing Recreation and Park Areas and Facilities (3) I, II

Prerequisite: Recreation 101.

Design principles and concepts applied to planning and development of park and recreation areas and facilities.

REC 580. Leisure, Recreation Therapy, and the Aging Process (3) II

Concepts of the relationship between leisure and gerontology are examined. Influence of leisure and recreation on work and life satisfaction of older adults in relationship to recreation therapy services.

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

FAX: 619-594-1004

E-MAIL: hoagland@mail.sdsu.edu

<http://www-rohan.sdsu.edu/dept/relstweb/rsweb>

Faculty

Emeritus: Anderson, Downing, Friedman, Gefter, Johnson, Jordan, Khalil, Sparks

Chair: Holler

Professor: Holler

Associate Professors: Levitt, Moore

Assistant Professor: Mohammed

Lecturers: Boni, Mueller

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)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units in religious studies to include Religious Studies 400 and at least three units from Sacred Texts, nine units from World Traditions, nine units from Religion, Society, and Culture, three units from Religion in the Americas, and three additional units selected from any of the four areas.

Area 1, Sacred Texts: Religious Studies 301, 305, 310. (3 units)

Area 2, World Traditions: Religious Studies 320, 325, 328, 333, 335, 337, 338, 339, 345. (9 units)

Area 3, Religion, Society, and Culture: Religious Studies 350, 353, 358, 363, 364, 370, 373, 376, 378, 379. (9 units)

Area 4, Religion in the Americas: Religious Studies 385, 390A, 390B, 395, 530. (3 units)

Courses with variable content (496, 580, 581, 582, 583, 596) may be used in the four areas of study when deemed relevant by the department adviser.

Religious Studies Minor

The minor in religious studies consists of a minimum of 15 units in religious studies to include at least three lower division units and 12 upper division units.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Courses (REL S)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

REL S 100. Exploring the Bible (3) I, II

Basic content and themes of the Hebrew Bible and New Testament using methods of contemporary biblical studies. Attention to ancient Near Eastern and Greco-Roman cultural settings as well as the impact of the Bible on contemporary culture.

REL S 101. World Religions (3) I, II

Major world and selected tribal traditions from primal times to present. Broad historical development and philosophical overview including founders, teachings, beliefs, practices, and interactions with culture, such as art, literature, politics.

REL S 103. American Religious Diversity (3) I, II

Religious identities and traditions of diverse peoples living in the US. Major world religions in context of contemporary multicultural America. Religions of indigenous peoples and religious movements which have arisen in US. Not open to students with credit in Religious Studies 102.

REL S 296. Experimental Topics (1-4)

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

Area 1: Sacred Texts

UPPER DIVISION COURSES (Intended for Undergraduates)

REL S 301. Hebrew Bible (3) I, II

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Literature, history, major themes of Bible; methods and concerns of contemporary biblical studies. Situates folkloric, political, heroic, poetic, and religious meanings of texts among their original audiences.

REL S 305. The New Testament (3) I, II

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors and Religious Studies 301.

Structure, composition, meaning of New Testament; methods for interpreting Biblical texts. Focus on letters of Paul, post-Pauline writings, Gospel accounts of Jesus's life.

REL S 310. The Qur'an (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Major themes of Qur'an including cosmology, eschatology, good and evil, gender, God and monotheism, People of the Book (Jews and Christians), and role of religion in society. Attention to historical period in which the Qur'an was compiled.

Area 2: World Traditions

UPPER DIVISION COURSES (Intended for Undergraduates)

REL S 320. Judaism (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Jewish history, culture, theory, and practice. Biblical roots of modern Jewish beliefs, basic movements within modern Judaism; Jewish calendar and Jewish life cycle as seen in Hebrew Bible, short stories, and films.

REL S 325. Christianity (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Historical development of Christian traditions and major issues confronting Christianity today. Beliefs and practices important to Christian self-understanding, debates over authority of Bible, accommodations to modern science, and relationship with non-Christian religions.

REL S 328. Islam (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Islamic religion and culture in Asia, Africa, and Near East. History, doctrines, practices, literatures, social and intellectual movements, role of Mohammed, and gender relations within Islam as understood in global context. (Formerly numbered Religious Studies 340.)

REL S 333. Ancient Near Eastern Religions (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Religious worlds of ancient Egypt, Mesopotamia, and Canaan through an examination of gods, goddesses, mythology, death, after-life, and religious art, architecture, and archaeology.

REL S 335. Comparative Mysticism (3)

Prerequisite: Three units of religious studies.

Meaning, origin, and development of mysticism. Purgation, illumination, annihilation, separation, covenant, and union of soul with the Divine as found in world scriptures, writings of prominent mystics, and mystical movements such as Kabbalists, Sufis, and yogic traditions.

REL S 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.)

REL S 338. Buddhism (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Origins and interpretations of Buddhist teachings in India, China, Tibet, and Japan. Trends in contemporary Buddhism and foundational concepts on Theravada and Mahayana Buddhism including their development in various Asian geographical settings.

REL S 339. Religions of India (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Major religious traditions from pre-Aryan Harappas to post-colonial India. Literatures of Hinduism, religious practices such as yoga and tantra, scriptural schools, sacrificial cults, Vedas, Upanishads, Bhagavad-Gita, Vedanta philosophies, early Buddhism. (Formerly numbered Religious Studies 401.)

REL S 345. Religions of East Asia (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Confucianism, Taoism, and Buddhism in broad historical and cultural context. Focus on Chan (Zen) school of Buddhism, Confucius, neo-Confucianism of Ju Xi, and Taoist masters Lao Ze and Chuang Ze. (Formerly numbered Religious Studies 403.)

Area 3: Religion, Society, and Culture

UPPER DIVISION COURSES (Intended for Undergraduates)

REL S 350. Dynamics of Religious Experience (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Religious experiences created in dynamics of myth, ritual, pilgrimage and community using film as primary data base. Primal and shamanistic religion, ecstatic experience and mysticism.

REL S 353. Religion and Psychology (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Religious dimensions of psyche using insights from academic and transpersonal psychology. Construction of religious identities through spiritual practice and transformation. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units of which three units may be applicable to General Education.

REL S 358. Death, Dying, and the Afterlife (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Diverse ways religions deal with process of dying and rituals involved in transition of life to death. Grieving, end-of-life decisions, views on afterlife.

REL S 363. Religion and the Sciences (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Views of science and religion as separate, conflicting, complementary, and overlapping. Galileo and the Church, the Scopes Trial, and twentieth century physics provide historical examples for study of assumptions about science and religion.

REL S 364. Religion and Film (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Representations of religion in modern cinema and analysis of how religious themes and imagery in film reflect societal values, beliefs, and morals.

REL S 370. Women in Religion (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Women's contributions to and transformations of mainstream and marginal religions, including ancient goddess worship and modern witchcraft, indigenous religions, and major world religions. Spiritual questions and quests of contemporary women.

REL S 373. Women and the Bible (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Narrative, legal, and poetic material about women in Bible. How women are depicted by authors of Bible, lives of women in ancient world, how women and women's studies are transforming biblical studies.

REL S 376. Nature, Spirituality, Ecology (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Cross-cultural religious views of nature. Attention to sacred texts, writings of naturalists, deep ecologists, and ecofeminists on place of nature in spirituality and role of spirituality in ecology.

REL S 378. Religion and the Marketplace (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Modes of consumption and economics in relation to religious beliefs and practices. Use of religion in marketing and marketing of religion.

REL S 379. Religious Violence and Nonviolence (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

Role of religion in terrorism, hate groups, scapegoating, domestic and ecological violence, versus role of religion in peacemaking and movements for social justice. Nonviolent philosophies of Gandhi, Martin Luther King, Jr., and pacifism in Jain, Buddhist, and Christian traditions.

Area 4: Religion in the Americas

UPPER DIVISION COURSES (Intended for Undergraduates)

REL S 385. American Indian Religions (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

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.

REL S 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.

REL S 395. Alternative Religious Movements (3)

Prerequisites: Three units of religious studies. Recommended: Completion of the General Education requirement in Foundations II.C., Humanities.

America's alternative religions, popularly called "cults," and why they attract spiritual seekers. New religions and transplanted Asian and African religions. Theoretical structures of belief systems and concrete specifics on different groups.

UPPER DIVISION COURSE (Also Acceptable for Advanced Degrees)

REL S 530. Religion and Revolution (3)

Prerequisite: Three units of religious studies.

Twentieth century liberation movements in their religious expression, from 1960's Latin America through Black theology, feminist theology, eco-theology, and queer theology. International religious liberation movements, particularly in Africa and the Americas.

Elective Courses

UPPER DIVISION COURSES (Intended for Undergraduates)

REL S 400. Senior Seminar (3)

Prerequisite: Religious studies major with more than 90 units; others with consent of department chair.

Senior capstone seminar in major. Discussion and research on topics in religious studies. Formal research paper and presentation.

REL S 496. Experimental Topics (1-4)

Prerequisite: Three units of religious studies.

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

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

Prerequisite: Twelve upper division units in religious studies.
Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

REL S 580. Major Figure (3)

Prerequisite: Three units of religious studies.

Life, works and significance of one major figure in a religious tradition. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

REL S 581. Major Theme (3)

Prerequisite: Three units of religious studies and upper division or graduate standing.

Advanced systematic study of a theme or motif selected from major religious traditions. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

REL S 582. Major Text (1-3)

Prerequisites: Three units of religious studies and upper division or graduate standing.

Advanced systematic study of a selected scripture or classic text(s) selected from one of the major religious traditions. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

REL S 583. Major Tradition (3)

Prerequisites: Three units of religious studies and upper division or graduate standing.

Advanced systematic study of the doctrines, practices, and development of a major religious tradition. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

REL S 596. Advanced Topics in Religious Studies (1-3)

Prerequisite: Consent of instructor.

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

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.



Rhetoric and Writing Studies

In the College of Arts and Letters

OFFICE: Extended Studies Center 303
TELEPHONE: 619-594-6515
FAX: 619-594-6530

Faculty

Emeritus: Denman, Johns

Chair: McClish

Professors: McClish, Sweedler-Brown

Associate Professors: Boyd, Hindman, Ornatowski, Poole, Quandahl, Robinett

Assistant Professors: Bekins, Bordelon, Werry

Lecturers: Allen, Boeck, Borgen, Brush, Bryson, Bucky, Cavender, Costello, Davies-Morris, Emery, Fielden, Finn, Fish, Fox, Hoffman, Kilcrease, Kline, Mack, Maggio, Manley, Moorin, Renner, Sherman, Sigmon, Sipp, Stagnaro, Taylor, Thompson, Towner, Underwood, Vanderpot, Williams, J., Williams, T.

Offered by the Department

Master of Arts degree in rhetoric and writing studies.

Certificate in advanced 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 Graduation Writing Assessment Requirement. The department also offers a required course in the teaching of composition for students in the Single Subject Teaching Credential in English degree program.

Courses (RWS)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES (Non-Baccalaureate Credit)

Rhetoric and writing studies courses numbered below 100 may not be used to satisfy graduation requirements.

RWS 92A. Developmental Writing: Fundamentals of Writing (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 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 97. Rhetoric and Writing Studies 92A is equivalent to Rhetoric and Writing Studies 97.

*RWS 92B. Developmental Writing: Intermediate (3) Cr/NC I, II, S

Prerequisite: Open only to students who have earned "RP" (report in progress) in Rhetoric and Writing Studies 92A but have not satisfied the Writing Competency requirement.

Evaluation based on student writing portfolio. Credit in Rhetoric and Writing Studies 92B satisfies the SDSU writing competency requirement.

RWS 94. Developmental Writing for International or Bilingual Students (3) Cr/NC/RP I, II

(Same course as Linguistics 94.)

Intermediate written English with emphasis on problems of non-native speakers; discussion of sentence, paragraph, and essay writing skills. Open only to ESL students who have not satisfied the SDSU Writing Competency requirement. Students attaining a score of 8 or better on the final examination earn a grade of "Cr" and satisfy the SDSU writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of "RP." Students receiving an "RP" should re-enroll in Rhetoric and Writing Studies 94 or Linguistics 94.

RWS 97. Developmental Reading and Writing (Learning in Communities - LINC) (4) Cr/NC/RP I

Three lectures and two hours of activity.

Registration in Rhetoric and Writing Studies 97 is restricted to students participating in the Learning in Communities (LINC) program which integrates instruction in the writing process and academic prose with the content of a General Education course. Rhetoric and Writing Studies 97 is designed to provide students with writing and critical thinking skills essential to academic achievement. Emphasizes individualized instruction to meet the unique needs of each student.

The final examination in Rhetoric and Writing Studies 97 is the Developmental Writing Proficiency Examination. Students attaining a score of 8 or better on the final examination earn a grade of "Cr" and satisfy the SDSU writing competency requirement. Students attaining a score of 7 or less with completion of all course requirements earn a grade of "RP." Students receiving an "RP" grade should enroll in Rhetoric and Writing Studies 92B. Not open to students with credit in Rhetoric and Writing Studies 92A. Rhetoric and Writing Studies 97 is equivalent to Rhetoric and Writing Studies 92A. (Formerly numbered Rhetoric and Writing Studies 97A.)

* 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.

RWS 98. Mini-Course: Selected Topics (1) Cr/NC

Assorted short courses which will meet three hours a week for five weeks and will cover a variety of academic skills through intensive – lectures and laboratory work. Evaluation based on student writing portfolio.

Suggested topics: Research paper, communication skills, research tools, vocabulary development, learning skills, spelling, grammar, and speed reading. See *Class Schedule* for specific content. Credit earned in courses from this series is not applicable to a bachelor's degree.

A. Learning Skills C. Tutorial

**LOWER DIVISION COURSES
(Acceptable for Baccalaureate Credit)**

RWS 100. Rhetoric of Written Argument (3) I, II (CAN ENGL 2)

(Same course as English 100.)

International students are advised to take Linguistics 100.

Prerequisites: Satisfaction of the SDSU writing competency requirement. (See Graduation Requirements section of catalog.)

Proof of completion of prerequisites required: Copy of EPT or competency scores or verification of exemption; proof of credit (Cr) in Rhetoric and Writing Studies 92A or 92B or 97.

Writing and reading as critical inquiry, designed to help students undertake university-level writing projects. Focus on rhetoric of written arguments. Students learn to use sources in their writing and make appropriate decisions about structure, cohesion, and rhetorical conventions. Not open to students with credit in a higher numbered composition course or Rhetoric and Writing Studies 101 or Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100.

RWS 101. Rhetoric of Written Argument (3)

Prerequisites: A score of 146-150 on EPT and a score of 8 or better on EPT essay. Only for students who have not passed EPT.

Follows the prescribed Rhetoric and Writing Studies 100 curriculum. In addition, students are required to attend eight individual tutoring sessions throughout the semester. Students must be concurrently enrolled in Rhetoric and Writing Studies 98A or 98C. Not open to students with credit in a higher numbered composition course or Rhetoric and Writing Studies 100 or Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100.

RWS 200. Rhetoric of Written Arguments in Context (3) I, II

(Same course as English 200.)

International students are advised to take Linguistics 200.

Prerequisites: Satisfaction of the SDSU writing competency requirement and Rhetoric and Writing Studies 100 or 101 or Africana Studies 120 or Chicana and Chicano Studies 111B or English 100 or General Studies 260A or Linguistics 100. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Further practice in writing, reading, and critical thinking. Emphasis on rhetoric of written arguments in context and using multiple sources in writing. Continued attention to structure, cohesion, and rhetorical conventions. Not open to students with credit in Africana Studies 200, Chicana and Chicano Studies 200, English 200, General Studies 260D, or Linguistics 200. Completion of Rhetoric and Writing Studies 200 may require completion of the library workbook assignment.

RWS 253. Grammar and Usage for Writers (2)

(Same course as Linguistics 253.)

Prerequisite: Passage of EPT or transfer writing assessment.

Instruction in sentence structure with attention to integrating sentences into their logical and rhetorical contexts. Identifying and understanding source of sentence-level writing problems.

RWS 280. Academic Reading and Writing (3)

Prerequisite: Score of 7 or below on Writing Proficiency Assessment (WPA).

Academic prose, emphasizing purposes, structures, and styles of academic writing. Designed to improve students' ability to plan, draft, revise, and edit essays, as well as to improve their ability to read and analyze complex academic texts.

RWS 281. Academic Reading and Writing for Second Language Learners and International Students (3)

(Same course as Linguistics 281.)

Prerequisite: Open only to students who qualify for Rhetoric and Writing Studies 280 and whose first language is not English.

Academic prose, emphasizing purposes, structures, and styles of academic English writing. Designed to improve students' ability to plan, draft, revise, and edit essays, as well as to read and analyze complex academic texts. Additional emphasis on grammatical features of English relevant to the second language population.

RWS 296. Experimental Topics (1-4) Cr/NC

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

RWS 299. Special Study (3)

Prerequisite: Consent of department chair and instructor. Individual Study.

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

RWS 305W. Writing in Various Settings (3)

International students are advised to take Linguistics 305W.

Prerequisite: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Composing effective texts for a wide range of situations in and out of the university. Learning to adjust textual elements for specific purposes, audiences, and settings. Enhances critical reading and writing skills by exploring how content contributes to meaning and effectiveness.

RWS 496. Topics in Rhetoric and Writing Studies (1-3)

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

RWS 499. Directed Study (1-3) I, II

Prerequisites: Consent of instructor and approval of department chair.

Individual study. Maximum credit six units.

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

RWS 500W. Advanced Composition (3) I, II

Prerequisite: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

The theory and practice of expository writing, including the contributions of semantics, rhetoric, and logic.

RWS 501. Editing (3) I

Prerequisites: Rhetoric and Writing Studies 305W or 500W.

Fundamentals of professional editing. Functions of an editor. Document development, style, and style guides. Editing tools and technologies. Preparing text for publication and production.

RWS 502. Tools for Technical Communicators (3) I, II

Prerequisite: Rhetoric and Writing Studies 503W.

Fundamental software tools for technical communicators. Electronic document style and format. Preparing text electronically for publication and production. Developing on-line and Internet documentation. Rhetorical issues in electronic writing technologies.

RWS 503W. Technical Writing (3) I, II, S

Prerequisites: Rhetoric and Writing Studies 200. Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisites required:** Test scores or verification of exemption; copy of transcript.

Principles and practices of writing required in technical and scientific fields or professions, including technical writing style and rhetorical strategies of designing technical documents.

RWS 504. Problems in Technical Communication (3) II

Prerequisite: Rhetoric and Writing Studies 503W. Recommended: Graphics or drawing course.

Problems in technical writing, including graphics, printing, and 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.

RWS 506. Writing Internship (3) Cr/NC I, II, S

Prerequisites: Consent of instructor and successful completion of a 500-level writing course with a grade of B or better.

Intensive experience in writing and editing documents while student is under the joint supervision of an academic instructor and a professional coordinator.

RWS 507. Technical Communications in Nonprofit Organizations (3) II

Prerequisite: Rhetoric and Writing Studies 503W.

Developing specific technical communication skills for nonprofit organizations. Learning nonprofit documentation: proposals, mission statements, advertising, member surveys, capital campaigns. Promoting volunteerism. Interacting with nonprofit boards. Adhering to requisite state and federal regulations.

RWS 508W. Scientific Writing (3)

Prerequisites: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking. **Proof of completion of prerequisite required:** Test scores or verification of exemption; copy of transcript.

Developing specific writing skills for scientific research and communication. Learning scientific documentation: research paper, case report, review, abstract, promotional material. Adhering to standards and regulations. (Formerly numbered Rhetoric and Writing Studies 508.)

RWS 509. Introduction to the Teaching of Composition (3) I, II

Prerequisite: Consent of instructor based on writing sample and/or test.

Techniques for teaching and evaluation of written composition. Provides a theoretical base for these techniques.

RWS 511. Literacy, Rhetoric, and Technology (3)

Role that technologies of communication have played in concepts of language, literacy, and cognition. Histories and theories of literacy (with emphasis on rhetorical tradition), and their relevance to research on electronic text.

RWS 596. Special Topics in Rhetoric and Writing Studies (1-3)

Prerequisite: Consent of instructor.

Selected topics in rhetoric and writing studies. May be repeated with new content and consent of instructor. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

RWS 599. Special Study (1-3) Cr/NC

Directed individual study. Maximum credit six units.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.

Russian

OFFICE: Business Administration 304

TELEPHONE: 619-594-5111

FAX: 619-594-8006

E-MAIL: russian.coord@sdsu.edu

<http://www-rohan.sdsu.edu/~russian/>

In the Department of European Studies
In the College of Arts and Letters

Faculty

Emeritus: Dukas, Fetzer

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 53 units in Russian courses can apply to the degree.

Students majoring in Russian must complete a minor in another field to be approved by the departmental adviser in Russian.

International Experience Requirement. All Russian majors are required to complete a study abroad program in Russia or any other Slavic-language speaking country, consisting of a minimum of six units (90 hours). However, all majors are strongly encouraged to complete a more extensive abroad experience by participating in a semester or academic year program. To fulfill the study abroad requirement, Russian majors must enroll in an approved program. Unapproved study abroad programs will not meet the international experience requirement for the major.

Preparation for the Major. Russian 100A, 100B, 110, 200A, 200B. (23 units)

Language Requirement. The language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units in Russian to include Russian 301, 305A or 305B, 310, 311, 430, 441, 501; and nine units of upper division electives in Russian.

Russian Major

In preparation for the Single Subject Teaching Credential in Foreign Languages

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 11061)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education. For students completing the single subject teaching credential program, no more than 48 units in Russian courses can apply to the degree.

This major may be used by students in policy studies or teacher education as an undergraduate major for the B.A. degree in liberal arts and sciences. A minor in another field approved by the departmental adviser in Russian is required for the degree.

Preparation for the Major. Russian 100A, 100B, 200A, 200B. (20 units)

Language Requirement. The language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 24 upper division units in Russian to include 301, 303, 305A, 305B, 430, 501; and six units in 400- or 500-level courses in Russian.

Proficiency Examination. Before taking a student teaching assignment in Russian, the candidate for the credential may be required to pass an oral and written proficiency examination in the language, administered by the Department of European Studies. The candidate must consult with the chair of the department concerning this examination.

Russian Minor

The minor in Russian consists of a minimum of 22 units to include Russian 110, 200A, 200B, Russian 301 or 311, and six units of upper division Russian courses. Any course taught in English, except Russian 110, needs department approval to apply to the minor requirements.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Russian to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Russian 200A or the equivalent level of achievement. The usual sequence of coursework is Russian 100A, 100B, and 200A. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. **Four years** of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the language requirement.

Courses (RUSSN)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

Native speakers of Russian will not receive credit for taking lower division courses in Russian except with advance approval from the department.

All lower division courses in Russian are taught in Russian unless otherwise stated.

No credit will be given for lower division courses taken after successfully completing any upper division Russian course taught in Russian.

No credit will be given for Russian 100A, 100B, 200A, 200B, 301 taken out of sequence.

RUSSN 100A. Beginning Russian 1 (5) I

Pronunciation, oral practice, reading, essentials of grammar. Not open to students who have completed three years of high school Russian unless the third course was completed five or more years ago.

RUSSN 100B. Beginning Russian 2 (5) II

Prerequisite: Russian 100A or two years of high school Russian.

Continuation of Russian 100A. Not open to students who have completed four years of high school Russian unless the fourth course was completed five or more years ago.

RUSSN 110. Slavic Legends and Tales (3)

Introduces fairy tales, folk epics and legends and examines aesthetic, social, and psychological values they reflect. Cultural influence of Slavic folklore in literature, music, painting, film. Taught in English.

RUSSN 200A. Intermediate Russian 1 (5) I

Prerequisite: Russian 100B or three years of high school Russian.

Practical application and review of the basic principles of Russian. Oral practice, reading of cultural material in Russian. (Formerly numbered Russian 201.)

RUSSN 200B. Intermediate Russian 2 (5) II

Prerequisite: Russian 200A.

Continuation of Russian 200A.

UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division courses in Russian are taught in Russian unless otherwise stated.

RUSSN 301. Advanced Grammar and Composition (3)

Prerequisites: Russian 200B; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. **Proof of completion of prerequisites required:** Copy of transcript.

Advanced grammar and stylistics; intensive writing practice; reports based on outside reading.

RUSSN 303. Political and Business Russian (3)

Prerequisite: Russian 301.

Commercial and political Russian, with emphasis on international relations and socioeconomic aspects of contemporary Russia.

RUSSN 305A. Russian Literature of the Nineteenth Century (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Nineteenth century Russian prose fiction with particular consideration of the works by Pushkin, Turgenev, Tolstoy, Dostoevsky, and Chekhov. Taught in English with readings in English.

RUSSN 305B. Russian Literature of the Twentieth Century (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Twentieth century Russian literature including works by Zamyatin, Pasternak, Akhmatova, and Solzhenitsyn. Taught in English with readings in English.

RUSSN 310. Russian and East European Cinema (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Through study of films from 1950s to post-Soviet times, major concerns of East Europeans are addressed through cinema. Interrelationships among cinematic traditions of Russia, Poland, Hungary, Czechoslovakia, and former Yugoslavia/Balkans. Taught in English.

RUSSN 311. Russian Through Media (3)

Two lectures and two hours of activity.

Prerequisite: Russian 200B.

Russian stylistics and discourse grammar in context. Emphasis on communicative skills: listening, speaking, reading, and writing. Students work with Internet materials, newspapers, magazines, and excerpts from Russian and Soviet films.

RUSSN 430. Russian Civilization (3)

Prerequisites: Russian 200B; upper division standing for majors; completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors. **Proof of completion of prerequisite required:** Copy of transcript.

Russian civilization through literary texts, visual art, music, and film. Relationships between art and politics, art and national identity, art of the fantastic and doublespeak, art of postcommunism and post-modernism.

RUSSN 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.

RUSSN 441. Structure of Modern Russian (3)

Two lectures and two hours of activity.

Prerequisite: Russian 301.

Linguistic structure of current standard Russian. Topics include Russian phonology, phonetics and intonation, verbal and nominal morphology, syntax.

RUSSN 499. Special Study (1-3) I, II

Prerequisites: Fifteen upper division units in the major with an average of B (3.0) or better and consent of instructor. **Proof of completion of prerequisites required:** Copy of transcript.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

RUSSN 501. Translation (3)

Prerequisite: Russian 301.

Comparison of Russian and English through translation of a variety of texts from Russian to English and from English to Russian.

RUSSN 570. Issues in Russian Literary and Cultural Studies (3)

Prerequisites: Russian 301 and 305A or 305B.

Themes within literary, intellectual, and cultural movements in Russian literature of the nineteenth to twenty-first centuries. May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

RUSSN 596. Topics in Russian Studies (3) I, II

Prerequisite: Russian 305B (for literary topics). **Proof of completion of prerequisite required:** Copy of transcript.

Topics in Russian language, literature, or linguistics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES
Refer to *Bulletin of the Graduate Division*.



Social Science

In the College of Arts and Letters

OFFICE: Adams Humanities 4212
TELEPHONE: 619-594-5304

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. 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)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements." Spanish is recommended for those planning to work in this part of the United States.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 33 upper division units to include a 15-unit specialization in one department and the remaining 18 units from among three additional departments. Students may specialize in anthropology, economics, geography, history, political science, sociology, or, under certain conditions listed below, Chicana and Chicano studies. The remaining 18 units must be taken from three separate departments other than the department of specialization. Students who specialize in anthropology, economics, geography, history, political science or sociology may take a maximum of six units in Africana studies or American Indian studies or Chicana and Chicano studies or religious studies or psychology or women's studies from courses listed below.

Students specializing in Chicana and Chicano studies must select courses from Chicana and Chicano Studies 301, 303, 320, 350A-350B, 480 and take the remaining 18 upper division units in anthropology, economics, geography, history, political science, or sociology.

Only students with a specialization in anthropology, economics, geography, history, political science or sociology may take a maximum of six units in the major from Africana studies or American Indian studies or Chicana and Chicano studies or psychology or religious studies or women's studies. These six units can only be selected from the following courses:

Africana Studies 331, 445, 470, 471A, 471B.
 American Indian Studies 303, 400, 440.
 Chicana and Chicano Studies 301, 303, 320, 350A-350B, 480.
 Psychology 320, 321, 340, 350, 351, 355, 452.
 Religious Studies 301, 305, 328, 339, 345, 353, 363.
 Women's Studies 310, 320, 325, 340, 341A-341B, 360, 370, 375, 530, 580.

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.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Students are encouraged to meet the language competency requirement for the social science major by taking a language appropriate to their interests in African or Middle Eastern studies. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units, selected with the consent of the adviser, to include at least 15 units in anthropology, economics, geography, history, political science or religious studies, or a combination of 15 units in art, comparative literature, humanities, and religious studies.

Required courses: Humanities 460; six units from History 473, 474, 475, 476, and 574; and Political Science 363 or 364. In addition, the following courses are recommended: Anthropology 350, 424; Economics 365, 489; Political Science 361, 481; Religious Studies 328.

Emphasis in Environment

The adviser for this emphasis is Dr. Sarah S. Elkind, Department of History.

Preparation for the Major. Biology 100 and 100L; a six-unit sequence in each of three of the following fields: (1) anthropology, (2) economics, (3) geography, (4) history, (5) political science, and (6) sociology. (22 units)

Courses recommended for these sequences are as follows: Anthropology 101 and 102, Economics 101 and 102, Geography 101 and 102, History 105, 106, or 109, 110 or 115, 116, Political Science 101 and 102, Sociology 101 and 150. Additional recommended courses include Geological Sciences 100 and 101.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 30 upper division units to include:

A. Twelve units of core courses to include nine units from three departments selected from Economics 452, 453 or 454, Geography 370 or 573, History 441 or 540, Political Science 334 or 335, plus three additional units from this list; and

B. An additional 18 units from at least three departments selected from Economics 452, 453, or 454; Geography 370, 378, 409, 570, 572, 573, 574, 577; History 441, 540; Political Science 334, 335; Sociology 350. Also acceptable: Biology 315, 324, 327, 540; Geological Sciences 301, 303; Community Health Education 350; Philosophy 332; Physics 301; Recreation 305, 487.

Social Science Major

In preparation for the Single Subject Teaching Credential With the B.A. Degree in Liberal Arts and Sciences (Major Code: 22011)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education.

This major may be used by students in policy studies or teacher education or as undergraduate for the B.A. degree in liberal arts and sciences.

Impacted Program. The social science major in preparation for the single subject teaching credential is designated as an impacted program. To be admitted to the major, students must meet the following criteria:

- 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);
- Complete a minimum of 60 transferable semester units;
- Have a cumulative GPA of 2.50 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Preparation for the Major. Economics 101, 102; Geography 101, 102; History 100, 101; Political Science 101, 102; Religious Studies 101. (27 units)

These prerequisite courses may not be taken Cr/NC. The minimum grade in each class is C or higher.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements." Spanish is recommended for those planning to work in this part of the United States.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 42 upper division units to include:

United States and California History: History 409, 410, 445, and three units selected from History 533B, 535, 536, 539, 540, 543, 544B, 545.

American Government and Politics: Three units selected from Political Science 305, 321, 334, 335, 347A, 348, 406, 436, 531.

United States Geography: Geography 321.

Ethnic and Women's Studies: Six units from two departments selected from Africana Studies 322, 470, 471A-471B, American Indian Studies 400, 420, 440, Chicana and Chicano Studies 301, 350B, 375, History 422, Women's Studies 341A-341B, 370, 375.

World History: Nine units distributed as follows:

History 412 and six additional units selected from two of the following areas:

Africa and 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.

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 (socsci)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

SOCSI 201A. Introduction to SPSS (1) I, II, S

Two hours of activity for 12 weeks and six hours to be arranged.

Prerequisite: Consent of instructor.

Use of computer package SPSS to organize and modify numerical data. Selected procedures include data file creation, frequency, and descriptive statistics, graphs and charts, cross tabulation, t-tests, one-way anova, correlation, and regression. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J.

SOCSI 201B. Introduction to Access (1) I, II, S

Two hours of activity for 12 weeks and six hours to be arranged.

Creation of relational databases. Topics include tables, queries, forms, reports, macros, and modules. Will perform sorts and filters and use expressions to create calculated fields and aggregate functions. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J. Not open to students with credit in Information and Decision Systems 180.

SOCSI 201C. Introduction to Excel (1) I, II, S

Two hours of activity for 12 weeks and six hours to be arranged.

Use of spreadsheet software. Create and format spreadsheets and workbooks, work with formulas and functions, charts, lists and databases, macros, and "what-if" analysis. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J. Not open to students with credit in Information and Decision Systems 180.

SOCSI 201D. Internet Research (1) I, II

Two hours of activity for 12 weeks and six hours to be arranged.

World Wide Web (WWW) using search engines and other sources of information. Utilize available library resources and conduct research activities using the World Wide Web. Creating a simple web page to upload to the web. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J.

SOCSI 201E. Introduction to Word and PowerPoint (1)

Two hours of activity for 12 weeks and six hours to be arranged.

Using word processing software to create formatted text, tables, graphics, and techniques for enhancing long documents such as theses and dissertations. Using presentation software to create and modify presentations appropriate to myriad topics, including text, graphics, animations, and hyperlinks. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J. Not open to students with credit in Information and Decision Systems 180.

SOCSI 201F. Introduction to Web Page Development (1) I, II

Two hours of activity for 12 weeks and six hours to be arranged.

Prerequisite: Social Science 201D or commensurate experience.

General principles of web page design and creation as applicable to academic environment to include effective web page design techniques, HTML editing software, introductory HTML, and graphics manipulation. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J.

SOCSI 201G. Introduction to SAS (1) I, II

Two hours of activity for 12 weeks and six hours to be arranged.

Prerequisite: Credit in an elementary statistics course.

Conducting data analysis and data management using SAS software as applicable to users with an elementary statistics background to include understanding basic SAS procedural concepts (such as data and proc steps), inputting, reading, and modifying data, and basic SAS statistical procedures. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J.

SOCSI 201H. Advanced SPSS for Windows (1) I, II

Two hours of activity for 12 weeks and six hours to be arranged.

Prerequisites: Credit in Social Science 201A and credit in an elementary statistics course.

Continuation of Social Science 201A. Explores more advanced data analyses and use of syntax, options, reports and scripts in SPSS to include analysis of variance, regression, logistic regression, non-parametric tests, and other advanced statistical procedures. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J.

SOCSI 201I. Advanced Microsoft Access (1) I, II

Two hours of activity for 12 weeks and six hours to be arranged.

Prerequisite: Credit in Social Science 201B.

Review Access database objects (tables, queries, forms, reports, macros and modules) covered currently in Social Science 201B. Also includes Visual Basic for Applications, ActiveX Controls, and working with data object models. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J.

SOCSI 201J. Advanced Microsoft Excel (1) I, II

Two hours of activity for 12 weeks and six hours to be arranged.

Prerequisite: Credit in Social Science 201C.

Continuation of Social Science 201C. More advanced topics in Excel, including application of advanced functions, worksheet simulation and statistical functions, "what-if" and statistical data analysis, and customizing Excel using macros. Maximum credit six units in any combination of Social Science 201A, 201B, 201C, 201D, 201E, 201F, 201G, 201H, 201I, 201J.

SOCSI 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSE (Also Acceptable for Advanced Degrees)

SOCSI 596. Advanced Topics in Social Science (1) Cr/Nc

Two hours of laboratory for 11 weeks and 10 hours to be arranged.

Prerequisites: Upper division or graduate standing and consent of instructor.

Advanced topics in software for social science research. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of nine units of 596. Maximum credit of six units of 596 applicable to a bachelor's or master's degree.

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, Hughes, Ishikawa, Kahn, Kelley, Kukkonen, Landsverk, Raymer, Reichert, Riehman, Sardinas, Siman, Stanford, Sucato, Valle, Zuniga

Director: Harbert

Associate Director: Finnegan

Professors: Clapp, DeGennaro, Harbert, Hohman, Jones, Shillington

Associate Professors: Barrio, Engstrom, Finnegan, Harris, Packard, Rasmussen

Assistant Professors: Carrilio, Mathiesen, Min

Lecturers: Daly, Dudley, Eichler, Keith, Letourneau, Milstein, Newell, Segars, Siegel

Offered by the School

Master of Social Work degree.

Master of Social Work and juris doctor degrees
(concurrent program).

Master of Social Work and Master of Public Health degrees
(concurrent program).

Major in social work with the B.A. degree in liberal arts and sciences.

Minor in social work.

The Major

The profession of social work is deeply committed to the relief of human distress and inequality, and to the assistance of people in the meeting of their social, psychological, and economic needs. The objective of the School of Social Work is to assist students in acquiring the essential knowledge, philosophy, and basic skills required for beginning professional social work practice; namely, to develop a philosophy which recognizes individual human welfare as the purpose and goal of social policy, to develop an awareness and understanding of human behavior, to attain a level of competence in practice methods and skills, to acquire knowledge in methods of research in social work, and to accept responsibility for continued development of competence in their practice after they have completed their academic education.

The social work major is designed to apply to a wide variety of social work practice settings. Preparatory coursework for the major includes a basis in the liberal arts and sciences. The upper division curriculum is intensive, encompassing coursework in cultural pluralism, human behavior, social policy and program evaluation, social work practice, and social work research. Required field experience is an integral part of the program.

The B.A. degree prepares students for immediate employment in those social work positions which do not require graduate level preparation, as well as providing the foundation for graduate study.

Impacted Program

The social work major is an impacted program. To be admitted to the social work major, students must meet the following criteria:

- Complete with a grade of C or higher: Social Work 110, 120; 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);
- Complete a minimum of 60 transferable semester units;
- Have a cumulative GPA of 2.40 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Social Work Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 21041)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog entitled "Graduation Requirements." No more than 51 units in social work courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Social Work 110, 120; Biology 100 or any three units in a human biology course; Economics 100 or three units of any economics course; Community Health Education 101; Psychology 101; Sociology 101; Psychology 270 or Sociology 201 or Statistics 250. (24 units)

These prerequisite courses may not be taken Cr/NC. The minimum grade in each class is C or higher.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 44 upper division units, in a prescribed course sequence, to include Social Work 350, 360, 361, 370, 381, 382, 483A-483B, 489A (4 units), 489B (4 units), 491, and nine units of upper division electives in social work (3 units may be taken from another department).

Time Limitation: All social work courses taken for the major must have been taken and completed within seven years of the granting of the undergraduate degree. Courses taken prior to the seven year rule must be repeated. This policy applies to courses taken at SDSU or transferred from another four-year college or university or appropriate courses from a community college. No exceptions will be made to this policy.

Life Experience: No social work premajor or major courses can be waived or credit given towards the undergraduate degree for life experience including but not limited to employment, time spent in the military, training or workshops or volunteer experiences.

Transfer Credit: Transfer credit students may transfer 18 non-social work courses in the premajor and six units of Social Work 110 and 120 from a California community college or four year institution with a signed articulation agreement with SDSU. Students from outside the state must have transcripts evaluated to determine if their courses meet SDSU criteria to be accepted for the premajor. The 44 units in the major can only be transferred from a Council on Social Work Education (CSWE) accredited or candidacy status social work undergraduate program.

Prescribed Course Sequence: Students must complete all 300-level social work courses (18 units) before they will be allowed to enroll in Social Work 483A and 489A. There is no required order of the 300-level courses so they may be taken in any combination or in either fall or spring semesters.

JUNIOR YEAR (18 units)		SENIOR YEAR (26 units)	
SWORK 350	SWORK 360	SWORK 483A	SWORK 483B
SWORK 361	SWORK 370	SWORK 489A	SWORK 489B
SWORK 381	SWORK 382	SWORK 491	Three Electives

Field Practicum. All students must enroll in field practicum. This is a 16-hour per week internship at a School of Social Work arranged and supervised social work community agency (students are not permitted to locate their own agencies). Students begin field practicum during the fall semester only and must concurrently enroll in Social Work 483A and 489A. The continuation of field practicum is offered in spring semester only when students must concurrently enroll in Social Work 483B and 489B. These courses are sequential and students must complete both "A" courses before going on to the two "B" courses. During the spring semester, preceding enrollment in field practicum, students attend a field orientation meeting and obtain the field application packet from the SDSU Bookstore. Specific date and time is posted on the field bulletin board outside Hepner Hall 119 and announced in class. In addition, students should read the appropriate section in the current student handbook. The section outlines all requirements and processes the student is expected to follow. The coordinator of field instruction evaluates each application to determine whether the student has met all requirements for admission to field practicum 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)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

SWORK 110. Social Work Fields of Service (3) I, II

Fields of services in which social workers perform professional roles. Focus on social work approach to intervention in practice and policy arenas.

SWORK 120. Introduction to Social Work and Social Welfare (3) I, II

Two lectures and three hours of fieldwork.

Orientation to field of social work. Develop understanding of social work principles, goals, values, and methods through readings and class discussion. An unpaid assignment in an agency setting is required. Scheduling is flexible.

SWORK 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES

(Intended for Undergraduates)

SWORK 350. Cultural Pluralism (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Understanding of the American society as a culturally pluralistic social process and an understanding of social work as a culturally directed profession with emphasis on the concept of cultural identities created by one's values, ideologies, knowledge and behavior.

SWORK 360. Perspectives on Human Behavior and the Social Environment (3) I, II

Prerequisite: Completion of General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Interdisciplinary, comparative, and critical approach to explanatory theories of human behavior. Focus on interrelatedness of factors that affect the nature and quality of human life with linkage to the social welfare of individuals, families and communities.

SWORK 361. Human Behavior Across the Life Span (3)

Prerequisites: Social work major and junior standing.

Psycho-social, biological, cultural and environmental influences on individual growth and development and how knowledge is utilized by social work generalist practitioners in assessment and intervention.

SWORK 370. Social Policies and Social Issues (3) I, II

Prerequisites: Social Work 110 and 120.

Major social forces and institutions as they relate to and determine social policy emphasizing social welfare services in an industrialized society. (Formerly numbered Social Work 370A.)

SWORK 381. Practice Skills Micro (3) I, II

Prerequisites: Completion of social work preparation for the major. Junior standing.

Micro skills within overall generalist practice framework. Written and verbal communication, interviewing, assessment with individuals and small groups.

SWORK 382. Practice Skills Macro (3) I, II

Prerequisite: Completion of social work preparation for the major. Junior standing.

Development of social work practice skills at macro level. Written and verbal communication needs assessment and resource development with organizations and communities.

SWORK 400. Social Work Practice: Child Welfare (3) I, II

Prerequisite: Social Work 370.

Problems of children and supportive, supplementary and substitute social services which have been developed to meet these needs.

SWORK 410. Social Work Practice: Family Issues (3) I, II

Prerequisite: Social Work 370.

Issues relative to social work intervention with families, including major social work and interpersonal family problem situations. Family practice methods and social service provisions, and social policy issues around family needs.

SWORK 420. Aging and the Social Services (3) I, II

Prerequisite: Social Work 370.

Contemporary status, social problems and needs, and developmental theories of the elderly population. Social services delivery system which serves the elderly.

SWORK 430. Alcohol and Other Drug Problems: Prevention and Intervention (3) I

Prerequisite: Upper division standing.

Alcohol and other drug issues related to individuals, groups, and society. Concepts include preventive methods, secondary prevention, self-help groups, models of treatment, prevention strategies in communities, and overview of alcohol and drug policies.

SWORK 483A. Generalist Social Work Practice I (3) I, II

Prerequisites: Completion of social preparation for the major, 300-level courses required for major, and concurrent registration in Social Work 489A.

Integration of social work theory, principles, and practice techniques.

SWORK 483B. Generalist Social Work Practice II (3) I, II

Prerequisites: Social Work 483A, 489A, and concurrent registration in Social Work 489B.

Integrating seminar with emphasis on macro generalist practice theory, principles, and methods.

SWORK 489A-489B. Field Experience in Social Work (3-9, 3-9) Cr/NC I, II

Prerequisites: Completion of all 300-level social work courses; Social Work 381 and 382 with a grade of C or better and consent of instructor; concurrent registration in Social Work 483A for 489A; concurrent registration in Social Work 483B for 489B; arrangements made during prior semester with coordinator of field instruction.

A minimum of 12 units (6 in Social Work 489A and 6 in Social Work 489B) is required. Students spend 16 hours per week per semester in practice field assignments in selected social work agencies or settings.

SWORK 491. Methods of Social Work Research (3) I, II

Definition and purpose of research in social welfare and social work. Formulation of research problems, selecting a design and methodology; techniques of collecting, organizing, interpreting and analyzing data.

SWORK 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

SWORK 497. Investigation and Report (3) I, II

Prerequisite: Consent of instructor.

Analysis of special topics in social welfare.

SWORK 499. Special Study (1-3) Cr/NC I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSE

(Also Acceptable for Advanced Degrees)

SWORK 596. Experimental Topics (1-4)

Selected topics in social work. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.

Sociology

In the College of Arts and Letters

OFFICE: Nasatir Hall 203

TELEPHONE: 619-594-5449 / FAX: 619-594-1325

E-MAIL: msannwal@mail.sdsu.edu

<http://www-rohan.sdsu.edu/dept/sdsusoci/index.html>

Faculty

Emeritus: Bloomberg, Chandler, Cottrell, DeLora, El-Assal, Emerick, Gillette, Hough, Ima, Kennedy, Kirkpatrick, Milne, Preston, Sandlin, Scheck, Schulze, Somerville, Sorensen, Stephenson, Wendling, Werner, Winslow, Wood

Chair: Gay

Professors: Gay, Kolody

Associate Professors: Buck, Liu, Ojeda, Pershing, Sargent, Wong, Zhang

Assistant Professors: Esbenshade, Johnston, McCall, Roberts

Lecturer: Clanton

Offered by the Department

Master of Arts degree in sociology.

Master of Science degree in criminal justice and criminology. (Jointly with the College of Professional Studies and Fine Arts.)

Major in sociology with the B.A. degree in liberal arts and sciences.

Minor in sociology.

The Major

Sociology is the study of human social behavior. Among other things, it includes the study of intimate personal relationships to large-scale 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. To be admitted to the sociology major, students must meet the following criteria:

- Complete with a grade of C or higher: Sociology 101, 150, 201, 250, and three units from the following one-unit courses taught through the Social Science Research Laboratory: Social Science 201A (required) and Information and Decision Systems 180 or any two units selected from Social Science 201B through 201J. **Note:** Statistics 119 or 250, or Biology 215, will be accepted in lieu of Sociology 201. These courses cannot be taken for credit/no credit (Cr/NC);
- Have a cumulative GPA of 2.50 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Sociology Major

**With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22081)**

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on “Graduation Requirements.” No more than 48 units in sociology courses can apply to the degree.

A minor is not required with this major.

Preparation for the Major. Sociology 101, 150, 201, 250, and three units from the following one-unit courses taught through the Social Science Research Laboratory: Social Science 201A (required), and Information and Decision Systems 180 or any two units selected from Social Science 201B through 201J. **Note:** Statistics 119 or 250, or Biology 215, will be accepted in lieu of Sociology 201. (15 units)

These prerequisite courses may not be taken Cr/NC. The minimum grade in each class is C or higher.

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on “Graduation Requirements.”

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in “Graduation Requirements” section for a complete listing of requirements.

Major. All majors must complete the core requirements and the requirements for one of five areas of specialization.

Core requirements (12 units) should be completed before courses in the area of specialization:

Sociology 401
Sociology 406, 407, or 408
Sociology 410 or 412
Sociology 430 or 433

Areas of specialization (12 units)

(a) Community Structure and Institutions

Sociology 335, 338, 421, 436, 480 (with approval of undergraduate adviser), 505, 531, 537, 539.

(b) Inequalities

Sociology 320, 352, 355, 433, 480 (with approval of undergraduate adviser), 481, 496, 505, 555.

(c) Diversity and Change

Sociology 320, 350, 355, 450, 456, 457, 480 (with approval of undergraduate adviser), 522, 555.

(d) Crime and Control

Sociology 352, 442, 443, 444, 445, 480 (with approval of undergraduate adviser), 543.

(e) Microsociology

Sociology 310, 320, 412, 436, 441, 480 (with approval of undergraduate adviser).

Electives (3 units): One three unit upper division course in sociology.

Sociology Minor

The minor in sociology consists of a minimum of 18 units to include Sociology 101 and either 150, 201, or 250; three units selected from Sociology 401, 406, 407, 408, 410, 430, or 433; six units selected from one of the areas of specialization under the major, and three elective units from among other upper division courses in the department. **Note:** Economics 201, Political Science 201, Statistics 119 or 250 will be accepted in lieu of Sociology 201.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Sociology Honors Thesis

The Department of Sociology offers undergraduates of superior achievement the opportunity to write a sociology honors thesis leading to special recognition upon graduation. Sociology 490, Senior Honors Thesis, is open to students who rank in the top twenty percent of senior sociology majors and who have successfully satisfied the Graduation Writing Assessment Requirement. Interested students should consult with the undergraduate adviser in the Sociology Department.

Courses (soc)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

SOC 101. Introductory Sociology: The Study of Society (3) 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.

SOC 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.

SOC 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.

SOC 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.)

SOC 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

SOC 305. Sociological Laboratory II (1)

Three hours of laboratory.

Prerequisite: Must be taken in conjunction with a three-unit upper division course.

Application of experimental, quantitative or qualitative methods to sociological problems and the use of experimental, social simulation teaching techniques.

SOC 310. Love, Jealousy, and Envy: The Sociology of Emotions (3)

Prerequisite: Sociology 101.

Sociological understanding of human emotions developed through consideration of history of sex and love, social psychology of jealousy, and political implications of envy. Understanding and management of emotions analyzed in context of community and society.

SOC 320. Sex/Gender Roles in American Society (3)

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Ways femininity and masculinity are constructed through social arrangements associated with interpersonal relations, family, education, occupations, and economic and political systems. How gender relations are portrayed in mass media and how they are accomplished in community life.

SOC 335. Mass Communication and Popular Culture (3)

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Development of popular culture as influenced by the growth of mass media of communication, including popular music, television, film, newspapers, and advertising. The power, functions, and effects of the mass media in society and in social change.

SOC 338. Sociology of Religion (3)

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Forms of religious belief, knowledge, practice, and experience tied to different social arrangements and historical periods. Consequences of religion for community and society. Secularization and conversion processes in modern industrial societies.

SOC 350. Population and Contemporary Issues (3)

Prerequisites: Sociology 250 with a grade of C (2.0) or better and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Population processes (fertility, mortality, and migration) as they affect and are affected by such contemporary issues as rapid world population growth, environment, urbanization, family, aging, US-Mexico border, and undocumented migration.

SOC 352. Contemporary Social Problems (3)

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Contemporary social problems in North America and other areas of the world.

SOC 355. Minority Group Relations (3) I, II

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Historical and comparative analysis of race and ethnic relations. Origins and maintenance of ethnic stratification systems; discrimination and prejudice; the adaptation of minority communities; role of social movements and government policies in promoting civil rights and social change.

SOC 401. Social Theory (3)

Prerequisite: Sociology 101.

Theories of society; classical European and contemporary US theories of modernity and post modernity, and non-Western theories of cultural and economic hegemony. Evolution of modern world system. Practical understanding of sociological tradition.

SOC 406. Intermediate Social Statistics (3)

Prerequisite: Sociology 250 with a grade of C (2.0) or better.

Statistical techniques in the analysis of social research data and hypothesis testing, including analysis of variance, covariance, partial correlation, multiple and logistic regression, logic and log-linear models, discriminant and factor analysis. Practical application with the use of statistical packages.

SOC 407. Survey and Experimental Research Methods (3)

Prerequisite: Sociology 250 with a grade of C (2.0) or better.

Research process from research design through data processing, analysis, and interpretation. Quantitative research techniques including universe enumeration, sampling, questionnaire construction, scaling techniques, structured interviews, and experimental designs.

SOC 408. Qualitative Research Methods (3)

Prerequisites: Sociology 101 and 250 with a grade of C (2.0) or better.

Ethnographic research methods including interviewing, observation, participant observation, and case studies. Problems in research design; gaining and maintaining rapport; analysis, interpretation, and writing with qualitative data.

SOC 410. Social Psychology: Mind, Self, and Society (3)

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Major theories, problems, and findings concerning the relationship of the individual and society. Topics include consciousness and construction of meaning, self-concept and social identity, socialization and interaction, group behavior and group membership.

SOC 412. Social Construction of Reality (3)

Prerequisite: Sociology 101.

Analysis of reality as an ongoing social process. Creation and internalization of social worlds through language. Common sense and the multiple realities of everyday life. Dynamic emergence of social structure.

SOC 420. Sexuality in Modern Society (3)

Prerequisite: Sociology 101.

Current research on contemporary sexual attitudes and behaviors, including changing norms in premarital, marital, and extramarital relationships. Controversies and implications for the individual and society.

SOC 421. The American Family and Its Alternatives (3)

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Changes in intimacy in American family. Selection of mating partners, spousal and parenting relationships, and alternatives to traditional family forms. Changing functions of the family viewed in historical perspective. Present diverse family arrangements and future prospects.

SOC 430. Social Organization (3)

Prerequisites: Sociology 250 with a grade of C (2.0) or better and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Social structure of societies. Historical examination of structure and development of social institutions, communities, and other large scale organizations.

SOC 433. Wealth, Status, and Power (3)

Prerequisite: Sociology 250 with a grade of C (2.0) or better.

Social inequality as an institutional process. Patterns of unequal distribution of wealth, power, privilege and prestige, their causes, and impact this has on communities and societies.

SOC 436. Sociology of Health and Illness (3)

Prerequisite: Sociology 101.

Social, cultural, and political factors in definitions of health, disease, healing, and provision of services. Comparative study of medical practices and organizational structures in America and selected international settings. Emphasis on change, socialization of practitioners, relationships between health related occupations.

SOC 441. Sociology of Mental Illness (3)

Prerequisite: Sociology 101.

Social, cultural, historical, and political factors involved in definition of "madness" and theories of mental illness in various societies. Review of research about incidence, prevalence, and social epidemiology of mental illness, as a community problem, and its distribution by social class, gender, age, geographical region, and country.

SOC 442. Sociology of Murder (3)

Prerequisite: Sociology 101.

Characteristics and distribution of murder, including historical and cross-cultural comparisons. Social psychological, structural, cultural and situational explanations of causes and consequences of juvenile, gang, domestic, mass, serial and sexual murders.

SOC 443. Crime and Society (3)

Prerequisite: Sociology 101.

Social origins, forms, and functions of criminal law. Sociological theories about causes and consequences of crime. Measurement and distribution of violent crimes, property crimes, victimless crimes, white collar crime, and their impact on communities and society.

SOC 444. Juvenile Delinquency (3)

Prerequisite: Sociology 101.

Sociological theories about causes and consequences of juvenile delinquency. Social origins of juvenile justice system, with attention to methods of control and prevention at community and national levels.

SOC 445. Sociology of Deviance (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.

SOC 450. Social Change (3)

Prerequisites: Sociology 101 and completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for nonmajors.

Social change at the interpersonal, institutional, and societal levels of analysis. Major economic, political, technological, and demographic forces that have shaped the contemporary world. Topics may include modernization, industrialization, urbanization, revolution, and prospects of social change in rich and poor nations.

SOC 456. Collective Behavior: Crowds, Cults, and Crazes (3)

Prerequisite: Sociology 101.

Processes of social behavior in masses and groups, including crowd behavior, mass hysteria, riots, mobs, fads, fashions, crazes, panics, rumors, and scapegoating. Sects and cults; social movements; the effects of mass communications and propaganda.

SOC 457. Protests, Reforms, and Revolutions (3)

Prerequisite: Sociology 101.

Revolutionary and reform movements in relationship to the larger society. Conditions leading to development of social movements, emergence of leadership, ideologies, strategies, recruitment of members, and social consequences; case studies.

SOC 480. Field Internship (3-6)

Prerequisite: Sociology 101.

Supervised field placement of students in community agencies. Practical experiences related to studies within the sociology curriculum. Maximum credit six units.

SOC 481. Community Poverty Workshop (3)

Prerequisites: Sociology 101 and 480.

Poverty dynamics in San Diego area: labor market, location of jobs and location of poor people, needs of poor and delivery of social services. Working with poor single parent families.

SOC 490. Senior Honors Thesis (3) I, II

Prerequisites: An upper division writing course offered by the College of Arts and Letters. Open to sociology majors with senior standing and permission of the honors thesis adviser.

Directed research on a sociological topic chosen in consultation with the honors adviser, and completion of a senior honors thesis. Required of students wishing to graduate with a Certificate of Recognition in Sociology with Honors.

SOC 496. Experimental Topics (1-4)

Prerequisite: Consent of the instructor.

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

SOC 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

**UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)**

SOC 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.

SOC 522. The Family in Comparative and Cross-Cultural Perspectives (3)

Prerequisite: Sociology 101. Recommended: Sociology 421.

Comparative study of selected family systems in the past and present. Comparative analysis of major social and demographic changes in marriage and family in post-industrial nations and less developed countries. Cross-cultural comparisons of family arrangements in contemporary America by social classes and racial-ethnic groups.

SOC 531. Working and Society (3)

Prerequisite: Sociology 101.

Structure and change in labor force, nationally and internationally. Social drama of work: self, roles, conflict, subcultures. Includes exploration of student work experiences, workers in the community, literacy, and film depictions of work worlds.

SOC 532. Workers, Managers, and Bureaucracy (3)

Prerequisite: Sociology 101.

Sociology of work in formal organizations. From classic theories on division of labor, industrial capitalism, and bureaucracy, to transformation of work in the twentieth century. Experiences of workers and managers in the U.S. and other societies.

SOC 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.

SOC 539. Sociology of Education (3)

Prerequisite: Sociology 101.

Social organization of education in the United States and other societies. Structure and functions of educational institutions. Formal and informal education. Class, ethnic, and other social factors affecting the educational process. Implications of educational decision making and testing.

SOC 543. Police, Courts, and Corrections: The Sociology of Crime and Punishment (3)

Prerequisite: Sociology 101.

Historical sociology of the American criminal justice system. Development and functions of police, criminal courts, prisons, parole, and probation. Theories and ideologies of punishment and rehabilitation. Review of contemporary research.

SOC 554. United States-Mexico Transborder Populations and Social Change (3)

(Same course as Chicana and Chicano Studies 554.)

Prerequisite: Sociology 101. Recommended: Chicana and Chicano Studies 355 and/or Sociology 350.

Sociology of the population at the United States-Mexico border region. Demographic dynamics and social change in border communities. International migration and transmigration. Transborder families and transnational families. Gender systems and women's reproductive health in border communities.

SOC 555. Immigrants and Refugees in Contemporary American Society (3)

Prerequisite: Sociology 101.

Contemporary migration to the United States, especially from Latin America and Asia. Political and economic migration. Immigrant and refugee adaptation. Theoretical controversies, research applications, and policy implications.

SOC 596. Current Topics in Sociology (1-3)

Prerequisite: Sociology 101.

Selected specialized, controversial or currently relevant topics in sociology. Maximum opportunity provided for student initiative in determining course content and procedures. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

SOC 597. Investigation and Report (3) I, II

Prerequisites: Fifteen units in sociology and consent of instructor.

Analysis of special topics in sociology. Maximum credit six units.

**GRADUATE COURSES
Refer to *Bulletin of the Graduate Division*.**

Spanish

In the College of Arts and Letters

OFFICE: Business Administration 403
TELEPHONE: 619-594-6588
FAX: 619-594-5293

Faculty

Emeritus: Barrera, Case, Castro (Castillo), Christensen, Head, Jiménez-Vera, Kish, Lemus, O'Brien, Segade, Silverman, Talamantes, Weeter, Young
Interim Chair: Wilson
Professors: Hidalgo, Robinson, Wilson
Associate Professors: Angelelli, Godoy, Martín-Flores
Assistant Professors: Moyna, Múzquiz-Guerreiro, Rosenberg, Strejilevich, Zabaleta

Offered by the Department of Spanish and Portuguese Languages and Literatures

Master of Arts degree in Spanish.
Major in Spanish with the B.A. degree in liberal arts and sciences.
Teaching major in Spanish for the single subject teaching credential in foreign languages.
Major in European studies, with emphasis in Spanish. **See** European Studies.
Major in international business, with emphasis in Spanish. **See** International Business.
Minor in Spanish.
Certificate in translation studies.
Certificate in court interpreting (available at Imperial Valley Campus only).

The Major

Spanish is the fourth most widely spoken language in the world and the second most frequently used language in the Southwest. Because of San Diego's proximity to Mexico and other Spanish-speaking countries, many students here are interested in learning Spanish. Their reasons range from practical application in jobs, travel, reading or recreation to a curiosity about the culture or literature of Spanish-speaking countries. The Department of Spanish and Portuguese offers a wide range of courses and programs designed to satisfy the varied needs of students who enter the Spanish major.

A major in Spanish for the single subject teaching credential can lead directly to a career in secondary teaching. The federal government also employs those with Spanish-speaking ability in both civil service and diplomatic areas. In addition, many fields which involve contact with the public require knowledge of Spanish. These types of public contact fields include law enforcement, medicine, banking, tourism, government, library positions, foreign affairs, public relations, advertising, missionary assignments, and social services.

Impacted Programs

The majors in Spanish and Spanish in preparation for the single subject teaching credential are impacted programs. To be admitted to the Spanish major, students must meet the following criteria:

- 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;
- Have a cumulative GPA of 2.50 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Spanish Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 11051)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 52 units in Spanish courses can apply to the degree.

Students majoring in Spanish must complete a minor in another field approved by the departmental adviser in Spanish.

Preparation for the Major. Spanish 101, 102, 103, 202, 211, and 212. Spanish 281 replaces 103 and 211 and Spanish 282 replaces 202 and 212 for U.S. Hispanics. Spanish 202 and 212 (or 282) must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). These courses are automatically waived for native speakers of Spanish who have a high school diploma or equivalent from a country whose language of instruction is Spanish. See adviser. (6-22 units)

Language Requirement. The language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

International Experience Requirement. All Spanish majors are required to complete an approved study abroad program in a Spanish-speaking country consisting of a minimum of six units (90 hours). To fulfill the International Experience Requirement, Spanish majors must enroll in a study abroad program approved by the department. Participation in other study abroad programs without the written approval of the department will not meet the international experience requirement for the major.

Major. A minimum of 30 upper division units taught in Spanish to include Spanish 301*, 302*, 350, 504; Spanish 340 or 341 or 342; Spanish 448 or 549; six units selected from Spanish 405A, 405B, 406A, 406B; and two electives selected from 300- to 500-level Spanish courses. At least 15 upper division units 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 381 replaces 301 and 302 for Spanish speaker.

Spanish Major

In preparation for the Single Subject Teaching Credential in Foreign Languages

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 11051)

All candidates for a teaching credential must complete all requirements as outlined in this section of the catalog under Policy Studies or Teacher Education. For students completing the single subject teaching credential program, no more than 52 units in Spanish courses can apply to the degree.

This major may be used by students in policy studies or teacher education as an undergraduate major for the B.A. degree in liberal arts and sciences. A minor in another field approved by the departmental adviser in Spanish is required for the degree.

Preparation for the Major. Spanish 101, 102, 103, 202, 211, and 212. Spanish 281 replaces 103 and 211 and Spanish 282 replaces 202 and 212 for U.S. Hispanics. Spanish 202 and 212 (or 282) must be completed with a grade of C or higher and cannot be taken for credit/no credit (Cr/NC). These courses are automatically waived for native speakers of Spanish who have a high school diploma or equivalent from a country whose language of instruction is Spanish. See adviser. (6-22 units)

Language Requirement. The language requirement for graduation is automatically fulfilled through coursework for preparation for the major.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

International Experience Requirement. All Spanish majors are required to complete an approved study abroad program in a Spanish-speaking country consisting of a minimum of six units (90 hours). To fulfill the International Experience Requirement, Spanish majors must enroll in a study abroad program approved by the department. Participation in other study abroad programs without the written approval of the department will not meet the international experience requirement for the major.

Major. A minimum of 30 upper division units taught in Spanish to include Spanish 301*, 302*; six units selected from Spanish 405A, 405B, 406A, 406B; Spanish 340 or 341 or 342; Spanish 448; Spanish 350 and 561; two electives from 300 to 500 level Spanish courses. At least 15 upper division units 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 381 replaces 301 and 302 for Spanish speaker.

Spanish Minor

The minor in Spanish consists of a minimum of 18-19 units taught in Spanish, 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 Writing Proficiency Assessment with a score of 10 or above), and Spanish 301, 302, and 350 prior to starting work on the certificate.

After meeting the basic requirements for admission, the student must complete with a GPA of 3.0 or better 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. Up to nine units in the certificate program may be counted toward the major in Spanish and six units may be counted toward the minor in Spanish.

Certificate in Court Interpreting

(Imperial Valley Campus)

The Imperial Valley Campus offers a Certificate in Court Interpreting. The certificate requires 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 Writing Proficiency Assessment with a score of 10 or above), and Spanish 301, 302, and 350 prior to starting work on the certificate.

After meeting the basic requirements for admission, the student must complete with a GPA of 3.0 or better 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.

Language Requirement for the B.A. Degree in Liberal Arts and Sciences

Students electing the study of Spanish to fulfill the language requirement for the Bachelor of Arts degree in liberal arts and sciences must successfully complete Spanish 103 or the equivalent level of achievement. The usual sequence of coursework is Spanish 101, 102, and 103. Refer to section of catalog on "Graduation Requirements" for additional ways to satisfy competency.

High School Equivalents

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the language requirement in various majors. These high school courses will not count as college credit toward graduation.

Secondary school language courses can be used as follows:

1. The first **two years** of high school level language count as the equivalent of the first semester of a college level course, although students with fewer than three years of high school level language may complete the first semester college course for graduation credit.

2. The first **three years** of high school level language count as the equivalent of the first two college semesters, although students with fewer than four years of high school level language may complete the second semester college course for graduation credit. Students who have completed three years of foreign language in high school will not receive credit for the first semester college course unless at least five years separate the last high school course and the first college course.

3. **Four years** of high school level language count as the equivalent of three college semesters or five college quarters, thus fulfilling the language requirement.

Students entering San Diego State University with five or six years of high school Spanish may enroll in Spanish 202; the department recommends, however, that they take Spanish 301.

Advanced Placement in Spanish*

1. Students scoring a 3 on the Spanish *Language* Advanced Placement Examination will receive 6 units of academic credit for Spanish 103 and 211. The continuation placement level with this score is Spanish 202 and/or 212. Credit will not be awarded for numbered Spanish courses (101, 102, 281).

2. Students scoring a 4 or 5 on the Spanish *Language* Advanced Placement Examination will receive 6 units of academic credit for Spanish 202 and 212. The continuation placement level with these scores is Spanish 301 or 381. Credit will not be awarded for lower division Spanish courses (101, 102, 103, 211, 281, or 282).

3. Students scoring a 3, 4, or 5 on the Spanish *Literature* Advanced Placement Examination will receive 6 units of academic credit for Spanish 405A and 405B. The continuation placement level with these scores is Spanish 301 or 381. Credit will not be awarded for lower division Spanish courses.

* AP credit automatically clears the language requirement.

International Baccalaureate

Students with the International Baccalaureate in Spanish will be awarded six units of Spanish equal to credit in Spanish 202 and 212. International Baccalaureate students will not receive duplicate credit for Advanced Placement in Spanish scores nor for enrollment in any lower division Spanish courses.

Courses (SPAN)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

Native speakers of Spanish will not receive credit for taking lower division courses in Spanish except with advance approval from the department.

All lower division courses in Spanish are taught in Spanish.

No credit will be given for lower division courses taken after successfully completing any upper division Spanish course.

No credit will be given for Spanish 101, 102, 103, 202, 301 taken out of sequence.

SPAN 101. Introduction to Spanish I (4)

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, 202, 281, 282, 301, or a higher numbered Spanish course.

SPAN 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, 202, 281, 282, 301, or a higher numbered Spanish course.

SPAN 103. Introduction to Spanish III (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, 281, 282, 301, or a higher numbered Spanish course.

SPAN 202. Intermediate (4) I, II, S

Prerequisites: Spanish 103 and 211.

Review of selected grammatical features supported by study of cultural materials. Emphasis on written and spoken language. Conducted in Spanish. Not open to students with credit in Spanish 282, 301, or a higher numbered Spanish course.

SPAN 211. Intermediate Conversation and 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. Not open to students after taking Spanish 281.

SPAN 212. Intermediate Conversation and Writing (3) I, II, S

Prerequisites: Spanish 103 and 211.

Emphasis on oral communication and intermediate level writing in Spanish. Conducted in Spanish. May be taken concurrently with Spanish 202. Not open to students after taking Spanish 282.

SPAN 281. Intermediate Spanish for U.S. Hispanics (3)

Prerequisites: Exposure to Spanish in the home and neighborhood in the U.S.

Introduction to written Spanish: orthography, spelling, basic sentence construction, vocabulary enrichment, complex and compound sentence construction, basic principles of writing. Not open to native speakers (with high school diploma from a Spanish speaking country) or students with credit in Spanish 103, 202, 211, 282, 301, or a higher numbered Spanish course. Replaces Spanish 103 and 211 for Preparation for the Major.

SPAN 282. Intermediate Spanish for U.S. Hispanics (3)

Prerequisite: Spanish 281 or score on departmental diagnostic examination.

Continuation of Spanish 281. Not open to native speakers (with high school diploma from a Spanish speaking country) or students with credit in Spanish 202, 212, 301, or a higher numbered Spanish course. Replaces Spanish 202 and 212 for Preparation for the Major.

SPAN 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

SPAN 299. Special Study (1-3)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Intended for Undergraduates)

All upper division courses in Spanish are taught in Spanish unless otherwise stated.

No credit will be given for lower division courses taken after successfully completing any upper division Spanish course.

SPAN 301. Advanced Conversation and Reading (3)

Prerequisites: Spanish 202 and 212.

Continued development of oral communication and reading comprehension. Review of selected grammatical structures through use of literary and cultural materials. Some writing will be adjunct to reading. Conducted in Spanish. May be taken concurrently with Spanish 302. Not open to students with credit in Spanish 381.

SPAN 302. Advanced Conversation and Writing (3)

Prerequisites: Spanish 202 and 212.

Advanced practice at oral communication through conversations and public speaking. Practice of written Spanish through advanced composition. Conducted in Spanish. May be taken concurrently with Spanish 301. Not open to students with credit in Spanish 381.

SPAN 307. Introduction to Commercial Spanish (3) I

Prerequisite: Spanish 301, 302, or 381.

Terminology and forms of business correspondence and documents.

SPAN 340. Spanish Civilization (3)

Prerequisites: Spanish 301, 302, or 381; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Spanish culture of the past and present, with emphasis on literature, philosophy, and the arts.

SPAN 341. Spanish American Civilization (3)

Prerequisites: Spanish 301, 302, or 381; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Spanish American cultures, with emphasis on literature, philosophy, and the arts.

SPAN 342. Mexican Civilization (3)

Prerequisites: Spanish 301, 302, or 381; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

The major currents and characteristics of Mexican culture, as expressed through the centuries in literature, philosophy and the arts.

SPAN 350. Advanced Grammar (3)

Prerequisites: Spanish 301 and 302 or 381.

Significant systematic features of modern Spanish grammar. Required for credential applicants.

SPAN 381. Advanced Spanish for Spanish Speakers (3)

Prerequisite: Spanish 282 or departmental diagnostic placement examination.

Advanced aspects of Spanish grammar (accentuation rules, intonation, and secondary stress), imperfect subjunctive in combination with other tenses, passive voice and impersonal constructions. Advanced composition of summaries, interpretive essays, and basic research papers. Replaces Spanish 301 and 302 for the Spanish major. Spanish 381 not open to students with credit in either Spanish 301 or 302.

SPAN 391. Spanish Enhancement for Translation and Interpretations (3)

Prerequisites: Spanish 301 and 302, or 381, and 350.

Bridges gap between Spanish for communication and Spanish for work. Acquisition of translation and interpretation skills (active listening, text analysis, anticipation, memory, public speaking).

SPAN 405A-405B. Survey Course in Spanish Literature (3-3)

Prerequisites: Spanish 301 and 302 or 381; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Important movements, authors and works in Spanish literature from the Middle Ages to the present.

SPAN 406A-406B. Survey of Spanish American Literature (3-3)

Prerequisites: Spanish 301 and 302 or 381; and completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Reading from representative Spanish American authors during colonial, revolutionary, and modern periods.

SPAN 448. Spanish Linguistics (3) I, II, S

Prerequisite: Spanish 350.

Structural, historical, and applied Spanish linguistics.

SPAN 491. Introduction to Translation Studies (3) I

Prerequisites: Spanish 350 and satisfaction of the University Graduation Writing Assessment Requirement.

Theoretical grounding and practical problems of literary and non-literary translation; linguistic and cultural obstacles; literary, legal, commercial, medical, social services lexicons in context.

SPAN 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.

SPAN 493. Advanced Spanish-English/English-Spanish Translation (3) I, II

Prerequisites: Spanish 350 and 491.

Practicum involving methods and techniques in translation of legal or government papers, banking documents, and business contracts from Spanish into English and from English into Spanish. Practice in translation of old Spanish into English (deeds, surveys, baptismal records, manuscripts of books).

SPAN 495. Internship in Translation and Interpretation (3) I, II

Prerequisites: Spanish 491 and consent of instructor.

Students selectively assigned to legal firms, medical facilities, commercial establishments or public offices that deal routinely with English and Spanish translation and interpretation. Students work 15 hours weekly under joint supervision of site coordinators and instructor. Maximum credit six units.

SPAN 496. Selected Studies in Spanish (3)

Topics in Spanish or Spanish American language, literature, culture and linguistics. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

SPAN 497. Advanced Commercial Spanish (3) II

Prerequisites: Six units from Spanish 301, 302, or 381 and Spanish 307.

Terminology and techniques used in commercial transactions, including interpretation and writing of business materials.

SPAN 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units. This course is intended only for students who are currently enrolled in or who already have credit for all upper division courses in Spanish available in any given semester.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

SPAN 501. Genre Studies in Spanish Literature (3)

Prerequisites: Spanish 405A-405B.

A specific literary genre: overview of the genre's development in Spanish literature (Spanish novel, short story, theatre) or focus on a narrower period (contemporary narrative, modern poetry). May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

SPAN 502. Genre Studies in Spanish American Literature (3)

Prerequisites: Spanish 406A-406B.

A specific literary genre: overview of the genre's development in Spanish American literature (the Spanish American novel, short story, theatre) or focus on a narrower period (vanguardista poetry, the "Boom"). May be repeated with new title and content. See *Class Schedule* for specific content. Maximum credit six units.

SPAN 504. Don Quixote (3)

Prerequisite: Spanish 405A.

A close reading of Cervantes' novel *Don Quixote*, Parts I and II. (Formerly numbered Spanish 620.)

SPAN 515. Mexican Literature (3)

Prerequisites: Spanish 406A-406B.

Mexican literature from the Romantic period to the present. Special emphasis placed on contemporary era.

SPAN 520. Caribbean Area Countries Literature (3)

Prerequisites: Spanish 406A-406B.

Literature of Caribbean Islands, Central America, Colombia and Venezuela, from colonial period to present. Special emphasis on contemporary era.

SPAN 549. Spanish Phonetics and Phonology (3) 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.

SPAN 556. Translation of Literary Works: A Critical Comparison (3)

Prerequisite: Spanish 493.

Techniques and methods of translating literary texts from English to Spanish and Spanish to English; textual and stylistic problems in different periods, genres, and dialects, with emphasis on contemporary literature.

SPAN 557. Seminar in Interpretation Issues and Theories (3) II

Prerequisites: Spanish 350, 491; Rhetoric and Writing Studies 305W with a grade of B (3.0) or better.

Modes and settings of language interpretation. Similarities and differences in principles applicable to court, conference, community, and medical interpreting discussed in terms of type of discourse, interlocutors, institutional, and cultural framework.

SPAN 561. Methods in Teaching Spanish as a Second Language (3)

Prerequisite: Spanish 350 or 448.

Teaching of Spanish as a second language: contemporary theory and methods. Not open to students with credit in French 561.

SPAN 572. Spanish American Theatre (3) (Offered only at IVC)

Prerequisites: Spanish 406A-406B.

Principal Spanish American dramatists and movements. Special emphasis on contemporary era.

SPAN 581. Mexican Sociolinguistics (3)

Prerequisites: Spanish 350 and 448.

Sociolinguistic phenomena occurring in Mexico from pre-Columbian times to the present. Language diversity before 1521 and throughout the colony; language contact and bilingualism; language policy and loss of indigenous languages. Emergence of Spanish as the national standard code in the nineteenth century. Regional dialects of Mexican Spanish.

SPAN 582. Sociolinguistics of U.S. Spanish (3)

Prerequisites: Spanish 350 and 448.

Contact of Spanish and English in the U.S. Southwest from 1848 to the present. Spanish language loss in the nineteenth century. Bilingualism in urban and rural communities; language maintenance and shift in the twentieth century. Language attitudes and bilingual education. Varieties of Spanish in the Southwest, the Northeast, and Florida.

SPAN 594A. Consecutive English/Spanish Interpretation (3)

Prerequisite: Spanish 350 or 391.

Consecutive interpretation techniques focusing on current events to include notetaking technique for interpreters, preparation for meetings, language register, active listening, structure of a speech, abstracting meaning, sight translation in the booth.

SPAN 594B. Simultaneous English/Spanish Interpretation (3)

Prerequisite: Spanish 594A with a grade of B (3.0) or better.

Simultaneous interpretation techniques focusing on current events. Simultaneous, whispered, and relay interpretation, preparation for meetings, language register, listening, structure of a speech, abstracting, sight translation in the booth.

SPAN 596. Selected Studies in Spanish (3)

Prerequisite: Spanish 302 or 381.

Topics in Spanish or Spanish American language, literature, culture and linguistics. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.



Special Education

In the College of Education

OFFICE: North Education 70

TELEPHONE: 619-594-6665

<http://edweb.sdsu.edu/sped/sped.html>

Accredited by the California Commission on Teacher Credentialing.

Faculty

Emeritus: Brady, Cegelka, Doorlag, Forbing, Lynch, McClard

Chair: Valles

Professors: Graves, Hall, Kitano, Lewis

Associate Professor: Valles

Assistant Professors: Alvarado, Johnson, McIntosh

Offered by the Department

Master of Arts degree in education.

Education specialist credentials in special education.

Early childhood special education.

Mild/moderate disabilities.

Moderate/severe disabilities.

Physical and health impairments.

Certificate in 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*).

Courses (SPED)

Refer to *Courses and Curricula and University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES (Intended for Undergraduates)

SPED 397. Problems in Education (Credit to be arranged) I, II (Offered only in Extension)

Prerequisite: Consent of instructor.

Class study of specially selected problems in education. Does not apply to pattern requirements for credentials. Credit earned in this course not applicable to a bachelor's degree.

SPED 450. Classroom Adaptations for Special Populations (2)

Strategies for adapting curriculum, differentiating instruction, meeting social and behavioral needs, and modifying assessments for students with disabilities and/or gifted and talented students in general education classrooms. Meets Standard 14 requirements for preliminary multiple and single subject teaching credentials.

SPED 470. Special Education Applications (2 or 3) Cr/NC

One lecture and two or four hours of activity.

Prerequisite: Consent of instructor.

Procedural applications in educational and/or community programs for students with exceptionalities.

SPED 496. Selected Topics in Special Education (1-4) I, II, S

Prerequisite: Consent of instructor.

Instructional sequences focusing on a single topic or competency dealing with special education. Topics differ each semester to adjust to current literature in the field, training needs, and resource availability. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

SPED 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

SPED 500. Human Exceptionality (3) I, II, S

Historical, philosophical, and legal aspects of special education that affect identification and programming for diverse learners with exceptionalities. Characteristics of individuals with special needs and implications for adapting living and learning environments. Meets special education mainstreaming requirement for all basic teaching credentials.

SPED 501. Typical and Atypical Learning Processes (3)

Prerequisites: Credit or concurrent registration in Special Education 500; concurrent registration in Special Education 502.

Theory, research, and processes in learning in relation to individuals with disabilities. Foundations of learning, development, and intervention.

SPED 502. Field Experiences in General and Special Education (1)

Three hours of observation/ participation per week.

Prerequisites: Concurrent registration in Special Education 501.

Observation and participation in general and special education classrooms and related school activities for students with disabilities

SPED 505. Educational Services for Students with Serious Emotional Disturbance (1)

Prerequisite: Admission to credential program.

Educational needs and services for students with serious emotional disturbance. Classroom interventions and procedures.

SPED 508. Characteristics and Identification of Students Who are Gifted and Talented (3)

Historical and theoretical foundations, alternative and critical perspectives, characteristics and needs, identification models for a diverse society.

SPED 510. Adapting Communication Systems for Students with Severe Disabilities (1)

Prerequisites: Admission to credential program.

Adaptations of communications and communication systems for students with disabilities. Educational strategies that special education teachers can use to augment classroom communications. Alternative approaches to communication for students with moderate/severe disabilities.

SPED 524. Characteristics of Students with Mild/Moderate Disabilities (3) 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.

SPED 525. Characteristics of Students with Moderate/Severe Disabilities (3) I

Prerequisite: Special Education 500.

Historical and philosophical perspectives of programs related to students with moderate/severe disabilities. Research on educational programs, curricular approaches, and characteristics with emphasis on services in context of school reform.

SPED 526. Characteristics and Education of Students with Physical, Health, and Sensory Impairments (3)

Prerequisite: Special Education 500.

Historical and philosophical perspectives, characteristics, needs, and supports for individuals with physical, health, and sensory impairments in educational, home, and community settings. Implications of health concerns for programming.

SPED 527. Special Education in a Pluralistic Society (3)

Prerequisite: Credit or concurrent registration in Special Education 500.

Historical and philosophical perspectives of cultural pluralism in special education and programs related to diverse students with disabilities. Research on curricular approaches and instructional needs. Sociocultural aspects related to disability, race, ethnicity, gender, and language.

SPED 528. Young Children with Disabilities and Their Families (3)

Prerequisite: Special Education 500.

Characteristics, needs, and educational programs and services for infants, toddlers, and preschoolers with disabilities and their families. Legislative requirements, models of service delivery, recommended practices, and family diversity.

SPED 530. Issues in Autism (2) I

Definition, etiology, assessment, and instructional practices used to address autism. Historical and current issues.

SPED 534. Classroom Assessment of Students with Mild/Moderate Disabilities (3)

Prerequisite: Admission to credential program.

Classroom assessment in general and special education for students with mild/moderate disabilities. Curriculum-based data collection strategies. Influences of cultural and linguistic diversity, and implications for curricular and instructional adaptations.

SPED 553. Behavioral Strategies and Supports for Students with Disabilities (3)

Prerequisites: Special Education 500 and 501.

Positive behavioral supports for students with disabilities in general and special education settings. Current theories and programs in functional assessment and behavioral change. Applications in educational and community environments with diverse students.

SPED 560. Applications of Technology for Individuals with Disabilities (3) I, 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.

SPED 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.

SPED 596. Selected Topics in Special Education (1-4) I, II, S

Specialized study of selected topics in special education. May be offered as either a workshop or lecture/discussion. See *Class Schedule* for specific content. Maximum credit of six units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES **Refer to *Bulletin of the Graduate Division*.**

Speech, Language, and Hearing Sciences

OFFICE: Communications Clinic 118
TELEPHONE: 619-594-6774
FAX: 619-594-7109

In the College of Health and Human Services

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: Allen, Christensen, Davies, Earnest, Kopp, Nichols, Riedman, Seitz, Thile, Williams
Interim Director: Wulfeck
Professors: Cheng, Gutierrez-Ciellen, Kramer, Newhoff, Robin, Shapiro, Thal, Wulfeck
Associate Professors: Barlow, Mackersie
Assistant Professors: Dreisbach Hawe, Torre, III
Lecturers: Branch, Fischer, Kane, Kotas, Lopes, Ramage, Ramsay, Roth-Abramson, Smith
Adjunct: Kryter, Singh

Offered by the School

Doctor of Philosophy degree in language and communicative disorders.
Doctor of Audiology.
Master of Arts degree in communicative disorders.
Major in communicative disorders with the B.A. degree in liberal arts and sciences.
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 master's degree is an advanced degree for those wishing to work professionally as a speech-language pathologist, speech and hearing scientist, and/or deaf educator. A professional doctorate is recommended for audiology.

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. 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. (19-32 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. Students elect to follow one of three tracks for the major: (a) Audiology, (b) Education of the Deaf, or (c) Speech-Language Pathology. Within these three tracks, requirements for the communicative disorders major are as follows:

(a) Audiology. Speech, Language, and Hearing Sciences 300, 320, 321, 323, 340, 340L, 511, 512, 513, 580, and six units selected from Speech, Language, and Hearing Sciences 350, 491 or 492A, 499, 514, 595; Biology 321, 336; Counseling and School Psychology 400. (35 units)

(b) Education of the Deaf. Speech, Language, and Hearing Sciences 300, 340, 340L, 350, 357 (2 units), 511, 513, 550, 558; Special Education 500, 501, 502. (31 units)

(c) Speech-Language Pathology. Speech, Language, and Hearing Sciences 300, 320, 321, 323, 340, 340L, 503, 511, 512, 513, 514, 580. (35 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.

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 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 Cross-Cultural 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 Speech-Language Pathology.
2. The following courses are also required: Speech, Language, and Hearing Sciences 525, 541, 546, 618A, 618B, 626A, 626B, 626C, 627, 929, 933. In addition, students must complete at least one of the following courses: Speech, Language, and Hearing Sciences 521, 522, 619, or 676.
3. The program of professional preparation for the C-RS Credential in Language and Speech requires a minimum of 75 semester credit hours, including a minimum of 27 semester credit hours in basic sciences and a minimum of 36 semester credit

hours in professional coursework. At least 30 of the 36 semester credit hours must be in courses for which graduate credit is received, and at least 21 of the 30 graduate semester credit hours must be in the professional area for which the credential is sought. The candidate must complete a minimum of 25 supervised observation hours and 350 clinical contact hours including 50 clock hours in each of three types of clinical setting. This credential also requires that a minimum of 100 clock hours be completed in the school setting. See the section on Certificates and the Credential Coordinator for additional information.

Certificates and Licensure

Preparation Leading to the Certificate of Clinical Competence from the American Speech-Language-Hearing Association

Students may complete the academic and clinical practice requirements leading to the Certificate of Clinical Competence in Speech-Language Pathology (CCC-Sp) or to the Certificate of Clinical Competence in Audiology (CCC-A) given by the American Speech-Language-Hearing Association (ASHA). The certificate requires a master's degree 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 of 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 340L, 357, 525, 541, 556 are required to purchase professional liability insurance.

Courses (SLHS)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

No credit will be given for Speech, Language, and Hearing Sciences 159, 259, 289 taken out of sequence.

SLHS 106. Communicative Disorders (3)

Orientation to field of speech pathology and audiology. Survey of communicative disorders, covering all areas of exceptionality, normal growth and development as it relates to speech and language. Waiver of this course is permitted only upon satisfactory passage of a competency examination. (Formerly numbered Communicative Disorders 106.)

SLHS 159. American Sign Language I (4)

Introduction to American Sign Language syntax, semantics, and use. ASL literature and the culture of the deaf community. Beginning level communication competence in ASL. Not open to students who have completed three (or more) years of high school American Sign Language classes unless the third course was completed five or more years ago. (Formerly numbered Communicative Disorders 159.)

SLHS 205. Introduction to Audiology and Hearing Science (3)

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.)

SLHS 259. American Sign Language II (4)

Prerequisite: Speech, Language, and Hearing Sciences 159.

Intermediate level communicative competence in American Sign Language (ASL). Readings include ASL linguistics and deaf culture. Not open to students who have completed four (or more) years of high school American Sign Language classes unless the fourth course was completed five or more years ago. (Formerly numbered Communicative Disorders 259.)

SLHS 289. American Sign Language III (4)

Prerequisite: Speech, Language, and Hearing Sciences 259.

Advanced communicative competence in American Sign Language (ASL). Fieldwork within the deaf community is a required component of this course. Not open to students who have completed five (or more) years of high school American Sign Language classes unless the fifth course was completed five or more years ago. (Formerly numbered Communicative Disorders 289.)

SLHS 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

SLHS 300. Introduction to Language Science (3)

Structure, acquisition, processing, and neurological organization of language in typical and disordered communication. (Formerly numbered Communicative Disorders 300.)

SLHS 320. Phonetics (3)

Two lectures and three hours of laboratory.

Principles of speech production and practical skills in discriminating and transcribing sounds of various dialects in English and other languages, as well as clinical populations. Competency in IPA broad and narrow transcription, classification of speech sounds, and patterns of speech. (Formerly numbered Communicative Disorders 320.)

SLHS 321. Anatomy, Neurology, and Physiology of Speech (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.)

SLHS 322. Learning in Communicative Disorders (3)

Understanding how people learn to communicate and understanding differences in learning related to communication disorders. Principles of learning and motivation. Role of diversity in learning. (Formerly numbered Communicative Disorders 322.)

SLHS 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, 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.)

SLHS 340. Principles of Audiology (3)

Prerequisites: Speech, Language, and Hearing Sciences 205, Psychology 260, and concurrent registration in Speech, Language, and Hearing Sciences 340L.

Diagnostic audiology procedures: Pure-tone testing, masking, speech recognition testing and immittance. Integration and interpretation of results from the basic audiological test battery. (Formerly numbered Communicative Disorders 340.)

SLHS 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 immittance audiometric tests. (Formerly numbered Communicative Disorders 340L.)

SLHS 350. Introduction to Deaf Culture (3)

American deaf community. Focus on language, social practices, evolution of cultural identity. Practicum (with ASL interpreters if necessary) will provide students with direct interaction within deaf community. (Formerly numbered Communicative Disorders 350.)

SLHS 357. Fieldwork with the Deaf (1-2) Cr/NC

Two hours of activity per unit of credit and one hour of staffing.

Prerequisite recommended: Speech, Language, and Hearing Sciences 159.

Field observation and participation under supervision in school settings with small groups of hearing impaired youngsters. Maximum credit three units. (Formerly numbered Communicative Disorders 357.)

SLHS 491. Honors Special Study (2)

Prerequisites: Junior standing and formal admission to 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.)

SLHS 492A. Honors Project and Symposium (3) Cr/NC

Prerequisites: Senior standing and admission to speech, language, and hearing sciences honors program.

Preparation of a research project for the honors program. (Formerly numbered Communicative Disorders 492A.)

SLHS 492B. Honors Project and Symposium Extension (3) Cr/NC

Prerequisite: Speech, Language, and Hearing Sciences 492A.

Completion and presentation of research project for the honors program. (Formerly numbered Communicative Disorders 492B.)

SLHS 496. Topics in Speech, Language, and Hearing Sciences (1-3)

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.

SLHS 499. Special Study (1-3)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

SLHS 503. Low Incidence Communicative Disorders (3)

Prerequisites: Speech, Language, and Hearing Sciences 320 and 321.

Characteristics, etiologies, assessment, and intervention strategies for fluency, voice, and craniofacial/cleft palate disorders. (Formerly numbered Communicative Disorders 503.)

SLHS 511. Pediatric Aural Rehabilitation (3)

Prerequisites: Speech, Language, and Hearing Sciences 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.)

SLHS 512. Phonological Acquisition and Disorders (3)

Prerequisite: Speech, Language, and Hearing Sciences 320.

Phonology, phonological development, and phonological disorders as they relate to basic linguistic theory. Concepts considered through critical thinking and problem-solving. (Formerly numbered Communicative Disorders 512.)

SLHS 513. Language Development and Disorders in Early Childhood (3)

Prerequisites: Speech, Language, and Hearing Sciences 300, 320, 321.

Language and communication development, delay, and disorders as they relate to theory and clinical practice in children from infancy through preschool age. (Formerly numbered Communicative Disorders 513.)

SLHS 514. Language Development and Disorders in School Age Children and Adolescents (3)

Prerequisites: Speech, Language, and Hearing Sciences 300, 320, 321.

Language development, delay, and disorders as they relate to developmental theory and clinical practice for school-age children from 5 through 18 years of age. (Formerly numbered Communicative Disorders 514.)

SLHS 521. Speech-Language Screening of Children (1)

Four hours of supervision.

Prerequisite: Clinic clearance.

Screening speech and language of children in various community facilities and settings.

SLHS 522. Speech-Language Screening of Adults (1)

Four hours of supervision.

Prerequisite: Clinic clearance.

Screening speech and language of adults in various community facilities and settings.

SLHS 524. Clinical Methods in Speech-Language Pathology (2)

Prerequisites: Speech, Language, and Hearing Sciences 512 and Speech, Language, and Hearing Sciences 513 or 514.

Clinical issues, policies, and methods in speech-language pathology. Experience in writing lesson plans and clinical reports. Includes clinical observation to partially fulfill requirements for clinic clearance. May be taken concurrently with Speech, Language, and Hearing Sciences 525. (Formerly numbered Communicative Disorders 524.)

SLHS 525. Clinical Processes (1-2)

Two to four hours of clinical practice and grand rounds attendance once per month.

Prerequisite: Consent of instructor.

Topics, observation, and experience related to practice of speech-language pathology. Maximum credit five units. (Formerly numbered Communicative Disorders 525.)

SLHS 540. Hearing Conservation and Audiometry for School Nurses (3)

Prerequisite: Registered nurse.

Builds on registered nurse's knowledge of anatomy, physiology, and medical-surgical treatment of disease as it relates to auditory mechanism. Designed to give background in hearing screening (pure tone and impedance) and awareness of ramifications of hearing loss in children necessary for referral and follow-up. Fulfills three-unit requirement for the School Nurse Credential and may be used toward the six-unit State Audiometric Certificate requirement. Not open to students with credit in Speech, Language, and Hearing Sciences 205, 340, 340L. (Formerly numbered Communicative Disorders 540.)

SLHS 541. Hearing Screening of Children (1) Cr/NC

Three hours of laboratory screening per week.

Prerequisites: Speech, Language, and Hearing Sciences 340 and 340L.

Field experiences in audiometric and impedance screening of children to obtain contact hours in screening required by American Speech-Language-Hearing Association, California License, and Clinical-Rehabilitative Services credential. (Formerly numbered Communicative Disorders 541.)

SLHS 546. Clinical Practice with Aural Rehabilitation (.5)

Two hours of supervision.

Prerequisites: Grade of C or better in Speech, Language, and Hearing Sciences 511 and a minimum of two units in Speech, Language, and Hearing Sciences 525.

Supervised practicum in aural rehabilitation. One unit represents two hours of clinical contact and one hour of staffing per week.

SLHS 550. Education of Deaf Children and Youth (3)

Prerequisite: Speech, Language, and Hearing Sciences 350.

Educational programs, services and resources for learners who are deaf; historical background, philosophy, sociological and psychological problems. (Formerly numbered Communicative Disorders 550.)

SLHS 556. Clinical Practice with Learners Who Are Deaf or Hard-of-Hearing (1)

Two hours of supervision, one hour of staffing per week, and grand rounds attendance once per month.

Prerequisites: Speech, Language, and Hearing Sciences 159, 357; credit in two of the following and concurrent registration in the third: Speech, Language, and Hearing Sciences 511, 513, 562. Admission to clinical practicum includes successful completion of competency examination.

Supervised therapy with representative challenges found in the deaf and hard-of-hearing population. Maximum one unit first semester; maximum credit two units. (Formerly numbered Communicative Disorders 556.)

SLHS 558. ASL Structure and Acquisition (3)

Prerequisites: Speech, Language, and Hearing Sciences 289, 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.)

SLHS 562. Oral Communication for Children Who Are Deaf or Hard-of-Hearing (3)

Prerequisite: Speech, Language, and Hearing Sciences 550.

Current methods for developing oral/aural communication skills with learners who are deaf or hard-of-hearing and youth. Differential problems of acquisition of communicative competence. Assessment and intervention procedures for classroom and clinical settings. (Formerly numbered Communicative Disorders 562.)

SLHS 570. Dysphagia (2)

Prerequisite: Speech, Language, and Hearing Sciences 321.

Measurement techniques and research in dysphagia. Assessment and treatment of dysphagia and swallowing problems in children and adults. (Formerly numbered Communicative Disorders 570.)

SLHS 580. Communication Processes and Aging (3)

Prerequisites: Twelve upper division units in an appropriate major.

Normal and disordered communication processes in the aging. (Formerly numbered Communicative Disorders 580.)

SLHS 595. Research Practicum (1-3)

Prerequisites: Consent of instructor and approval of school chair.

Participation in a specific research activity under faculty supervision. Maximum combined credit of six units of Speech, Language, and Hearing Sciences 595 and 795. (Formerly numbered Communicative Disorders 595.)

SLHS 596. Selected Topics in Speech, Language, and Hearing Sciences (1-4)

Prerequisite: Twelve units in speech, language, and hearing sciences courses.

Specialized study of selected topics from the area of speech-language pathology, audiology, education of the hearing impaired, and speech and hearing science. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596. Maximum credit of three units of 596 applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.

Statistics

In the College of Sciences

OFFICE: Geology/Mathematics/Computer Science 413
TELEPHONE: 619-594-6191

Faculty

Emeritus: Bell, Burdick, Macky, Moser, Park, Romano

Chair: Lesley

Coordinator for Statistics: Levine

Professors: Lui, Steffey

Associate Professors: Fan, Kelly, Levine

Assistant Professor: Lin

Lecturers: Manchester, McElroy, Noble

Offered by the Department of Mathematics and Statistics

Master of Science degree in statistics.

Concentration in biostatistics.

Major in statistics with the B.S. degree in applied arts and sciences.

Emphasis in actuarial science.

Emphasis in statistical computing.

Minor in statistics.

The Major

Statistics is the science which studies data – its collection, description, analysis, and interpretation. Almost all modern professions, from economists to engineers and from social scientists to medical scientists, rely on statistics. Statistical methods are used for studying relationships, predicting results, testing hypothesis, and a variety of other purposes.

The Bachelor of Science degree in statistics is designed to provide students with a fundamental understanding of probability and mathematical statistics, a complementary knowledge of basic methods for data collection and inference, and practical computing skills to carry out statistical analyses of problems in many different areas of application.

One option within the major allows students with a strong interest in statistical or biostatistical aspects of a particular science to apply courses in that science to their major. This option should provide the interested student with a good background for employment or graduate work in statistics, biostatistics, or in that science. Emphases in actuarial science and statistical computing enable students to pursue further specializations aligned with professional opportunities in these areas.

Statistics is the discipline at the heart of the scientific method of discovery. Statistical principles are used in designing experiments and surveys to collect information, and statistical procedures are applied to summarize information, draw conclusions, and make decisions.

Because of the broad applicability of their training in statistical reasoning and data analysis, undergraduate majors are prepared for careers in diverse fields – such as biotechnology, environmental science, insurance, industrial manufacturing, and market research – in which the need for professionally trained statisticians is great.

Graduates who seek to acquire additional skills in applied or theoretical statistics may also consider programs of advanced study at the master's or doctoral level. Statisticians with advanced degrees are sought for senior positions in industry and government, as well as teaching positions in secondary schools, community colleges, and universities.

Statistics Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 17021)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Upon entry to the program, the student will be assigned to an undergraduate adviser in statistics. Thereafter, the student will meet with the adviser each semester and discuss his or her academic program. A program of study must be approved by the undergraduate adviser in statistics.

In addition to meeting the requirements for undergraduate standing and the basic requirements for the bachelor of science degree as described in this catalog, the student must complete a Graduation Writing Assessment Requirement and must complete a minimum of 61 units of coursework as described below.

Preparation for the Major. Statistics 119 or 250; Mathematics 150, 151, 245, 252, and 254; Computer Science 106 or 107. (24 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Statistics 350A, 350B, 510, 551A, 551B, 560; six units selected (with the approval of the undergraduate adviser in statistics) from Statistics 325, 496, 520, 570, 575, 596; 12 upper division units in statistics, mathematics (excluding Mathematics 302, 303, 312, 313, 414), computer science, or a science of application (selected with the approval of the undergraduate adviser in statistics). Students must complete outline for major and file a copy signed by adviser with the Office of Advising and Evaluations.

Emphasis in Actuarial Science

This emphasis is designed to prepare students for careers in the actuarial profession, applying probability and statistical models to problems of insurance and finance. Actuaries improve financial decision making by evaluating the current financial implications of uncertain future events. Students completing this emphasis would also be well prepared for graduate study in actuarial science or statistics.

Preparation for the Major. Statistics 119 or 250; Accountancy 230; Computer Science 106 or 107; Economics 101, 102; Mathematics 150, 151, 245, 252, 254. (33 units) The student must complete these courses before being allowed to register for the upper division finance courses.

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Statistics 350A, 350B, 551A, 551B, 575; Economics 320, 321; Finance 323, 327; six units from Statistics 325, 496, 510, 520, 560, 570, 596; three units from Finance 329, 421, 427; Mathematics 580. Students must complete outline for major and file a copy signed by adviser with the Office of Advising and Evaluations.

Emphasis in Statistical Computing

Modern day statistics applications require heavy computing for manipulating massive data sets, mining immense databases, and implementing computationally intensive data analytic tools to solve complex scientific problems. This emphasis is designed to prepare students for careers in statistics by providing them with the data analytic and computational machinery needed to excel in all avenues of statistical science during an information age where statistical computing plays a crucial role. Students completing this emphasis would also be well prepared for graduate study in statistical computing and statistics.

Preparation for the Major. Statistics 250, Mathematics 150, 151, 245, 252, 254, Computer Science 107, 108, 205. (30 units)

Graduation Writing Assessment Requirement. Completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better or passing the Writing Proficiency Assessment with a score of 10 or above. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 39 upper division units to include Statistics 325, 350A, 510, 551A, 551B, Mathematics 541, 543, Computer Science 310, 320; six units selected (with the approval of the undergraduate adviser in statistics) from Computer Science 501, 503, 505, 514, 520, 550, 553, 558, 559, 560, 575; six upper division units in statistics, computer science, or a science of application with a heavy statistical computing component (selected with the approval of the undergraduate adviser in statistics). Students must complete outline for this major and file a copy signed by the 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)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

NOTE: Proof of completion of Entry-Level Mathematics requirement required for Statistics 119 and 250: Copy of ELM score or verification of exemption.

STAT 119. Elementary Statistics for Business (3) 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.

STAT 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.

STAT 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

STAT 299. Special Study (1-3)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Intended for Undergraduates)

NOTE: Proof of completion of prerequisites required for all upper division courses: Copy of transcript.

STAT 325. SAS Programming and Data Management (3) I

Prerequisite: Statistics 250 or comparable course in statistics.

Entry, management, and summary of statistical data using SAS programming language. Data structures and manipulation, screen editing, visual displays, macros, related topics.

STAT 350A. Statistical Methods (3) I

Prerequisite: Statistics 250 or comparable course in statistics.

One- and two-sample hypothesis tests, paired difference tests, tests for variances, analysis of variance. Linear regression and correlation. Chi-square tests. Simple nonparametric tests. Power of hypothesis tests.

STAT 350B. Statistical Methods (3) II

Prerequisite: Statistics 350A.

Multiple regression, factorial models and nonparametric methods, all with emphasis on applications.

STAT 357. Probability and Statistics (3) I, II

Prerequisite: Mathematics 150.

Probability, measures of central tendency and dispersion, characteristics of frequency functions of discrete and continuous variates; applications. Highly recommended for all prospective secondary school teachers of mathematics.

STAT 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

STAT 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES
(Also Acceptable for Advanced Degrees)

NOTE: Proof of completion of prerequisites required for all upper division courses: Copy of transcript.

STAT 510. Applied Regression Analysis (3) I

Prerequisite: Statistics 250 or comparable course in statistics.

Methods for simple and multiple regression models, model fitting, variable selection, diagnostic tools, model validation, and matrix forms for multiple regression. Applications of these methods will be illustrated with SAS, SPSS, and/or S-Plus computer packages. (Formerly numbered Statistics 554A.)

STAT 520. Applied Multivariate Analysis (3) II

Prerequisite: Statistics 350A or comparable course in statistics.

Multivariate normal distribution, multivariate analysis of variance, principal components, factor analysis, discriminant function analysis, classification, and clustering. Statistical packages will be adapted for data analysis. (Formerly numbered Statistics 554B.)

STAT 550. Applied Probability (3) I, II, S

Prerequisites: Mathematics 151 and 254.

Computation of probabilities via enumeration and simulation, discrete and continuous distributions, moments of random variables. Markov chains, counting and queuing processes, and selected topics.

STAT 551A. Probability and Mathematical Statistics (3) I

Prerequisite: Mathematics 252.

Discrete and continuous random variables, probability mass functions and density functions, conditional probability and Bayes' theorem, moments, properties of expectation and variance, joint and marginal distributions, functions of random variables, moment generating functions. Special distributions and sampling distributions.

STAT 551B. Probability and Mathematical Statistics (3) II

Prerequisite: Statistics 551A.

Point and interval estimation and hypothesis testing in statistical models with applications to problems in various fields.

STAT 560. Sample Surveys (3) I

Prerequisite: Statistics 550 or 551A.

Methods for design and analysis of sample surveys with applications to social and biological sciences. Simple random sampling, stratification and clustering, ratio and regression estimators, subsampling, selected topics in survey methodology. (Formerly numbered Statistics 552.)

STAT 570. Stochastic Processes (3)

Prerequisite: Statistics 551A.

Introduction to stochastic processes with selected applications. (Formerly numbered Statistics 553.)

STAT 575. Actuarial Modeling (3)

Prerequisite: Statistics 550 or 551A.

Actuarial models and applications of probability and statistics to insurance and other financial risks. Utility theory; risk models, compound processes; survival distributions and life tables; life insurance, annuities and benefits.

STAT 596. Advanced Topics in Statistics (1-4) I, II

Prerequisite: Consent of instructor.

Selected topics in statistics. May be repeated with the approval of the instructor. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.

Teacher Education

In the College of Education

SCHOOL OF TEACHER EDUCATION: Business Administration 255

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, Bee, Berg, Blanc, Botkin, Briggs, Burnside, Campbell, Charles, Curry, Duckworth, Elliott, Erickson, Ford, Gast, Gates, Gega, Goodson, Gray, Groff, Hill, Ingmanson, Inskeep, Kaatz, Kendall, Lujan, McCormack, McCoy, Mehaffy, Moreno, Murphy, Nagel, A., Nagel, T., Pehrson, Person, Platz, Reel, Retson, Riggs, Rixman, Ross, R., Shaw, Stautland, Steckbauer, Strand, Tossas, Wilding, Yesselman

Director: Farnan

Professors: Bezuk, Cornejo, Evans, Farnan, Fearn, Fisher, Flood, Gallego, Grisham, Kelly, Lapp, Mason, Mathison, Mikitka-Gomez, Moss, Neumann (IVC), Pang, Philipp, Ross, P., Strom, Treadway, Yerrick

Associate Professors: Chizhik, E., Garrison (IVC), Gibson, R., Jacobs, Mora, Nieto, Park, Ross, D., Santa Cruz, Tran

Assistant Professors: Alger, Arquette (IVC), Branch, Cappello, Chizhik, A., Clement, Darby, Feiler, Frey, Gibson, S., Masarik, Phan, Zozakiewicz

Lecturers: Blakeslee, Telfer, Treger

Offered by the School

Master of Arts degree in education.

Multiple subject preliminary teaching credential.

Reading/language arts specialist credential.

Single subject preliminary teaching credential.

Certificate in children's literature.

Certificate in mathematics specialist (refer to *Bulletin of the Graduate Division*).

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 include a study of educational psychology plus a variety of methods courses in subjects commonly taught in elementary schools.

A variety of program options, including full-time, part-time, and accelerated models are available to credential candidates. Daytime commitments are required for student teaching placements. Examinations and/or coursework prerequisite to program admission, if not completed within the undergraduate degree program, may extend the total time commitment for credential issuance.

The Single Subject Credential qualifies graduates to teach in grades K-12 in a specific subject area. Most candidates prepare to teach in grades 7-12 (usually junior or senior high school) or in a middle school setting (usually grades 6-8). Students in the program follow a sequence of courses which normally takes two semesters to complete. The first semester of the program emphasizes curriculum theory and development, educational research, and foundations of education and includes a part-time student teaching experience. The second semester focuses on a full-time student teaching experience and accompanying seminar. The program requires a daytime commitment. A part time program is also available. This program provides more flexibility for students who have additional responsibilities. Coursework in this program is offered in the late afternoon and evenings. Examinations and/or coursework prerequisite to program admission, if not completed within the undergraduate degree program, may extend the total time commitment for credential issuance by one or more semesters.

Multiple Subject Credential (Elementary Education) (Credential Code: 00200)

Multiple Subject—Preliminary Credential

Persons interested in teaching in the traditional elementary school will typically pursue the Multiple Subject credential which authorizes teaching service in self-contained classrooms in preschools, grades K-12, and in classes organized primarily for adults (classrooms in which one teacher is responsible for all the subjects commonly taught). Recommendation for this credential requires:

1. A baccalaureate or higher degree.
2. Completion of an approved program of professional education, including student teaching and coursework in reading methods with a grade point average of 3.0 or higher.
3. Basic skills competency as demonstrated through passing scores on the California Basic Educational Skills Test (CBEST).
4. Demonstrated subject matter competency by passing the Multiple Subjects examination of the California Subject Examinations for Teachers (CSET). Must have scores taken within five years prior to recommendation.
5. Successful completion of the Teaching Performance Assessment (TPA).
6. Passing scores on the Reading Instruction Competence Assessment (RICA).
7. Demonstrated knowledge of the principles and provisions of the United States Constitution through successful completion of a three-unit collegiate-level course or examination. Courses are listed in the section of this catalog on "Graduation Requirements," IV. American Institutions Requirement.
8. Knowledge of health education, including substance abuse and nutrition: Community Health Education 101 or 920, or Health and Human Services 280, and verification of CPR competency.

9. Demonstrated knowledge of the needs of and methods of providing educational opportunities to individuals with exceptional needs: Special Education 450 or 496.
10. Demonstrated knowledge of computer hardware, software, and applications to educational/classroom use (computer literacy): Educational Technology 470.

NOTE: Undergraduate students in the Multiple Subject credential program may register for concurrent postbaccalaureate credit in their final semester prior to obtaining a baccalaureate degree as explained in the section of this catalog on "General Regulations."

According to SB 2042 legislation, teachers will be able to earn Professional Clear Credentials upon successful completion of induction programs sponsored by their employers and approved by the California Commission on Teacher Credentialing.

Admission Standards and Qualifications for the Multiple Subject Credential Program

Candidates for the Multiple Subject Credential Program must satisfy the standards and qualifications listed below and submit complete application packets to the School of Teacher Education, BA-255. Contact the School of Teacher Education for application dates.

Completed application packets will include items verifying satisfaction of the following:

1. **CBEST Examination.** Students must pass the California Basic Educational Skills Test (CBEST) *prior to admission* to the Multiple Subject credential program. Registration information and materials for the CBEST are available in the lobby of the Education building. Candidates are urged to take this examination as early as possible. Candidates are required to submit a photocopy of the individual score reports.
 2. **Subject Matter Competency.** Students must submit passing scores on the Multiple Subjects examination of the California Subject Examinations for Teachers (CSET) in order to verify subject matter competency in diversified subjects commonly taught in self-contained classrooms prior to admission to the Multiple Subject Credential Program. 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 School of Teacher Education.
 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. Proof of registration is required to be considered for admission.
 - a. **Education 451, "Introduction to Multicultural Education."** This course must have been taken within five years of program application.
 - b. **Health and Human Services 280, "Health Education for Teachers."** This course is a prerequisite for applicants.
 - c. **Mathematics 210, "Number Systems in Elementary Mathematics."** This course must have been taken within five years of program application. In lieu of Mathematics 210, candidates may substitute any calculus course taken at the college or university within the past five years with a grade of credit, "C," or higher.
- Candidates are required to submit unofficial transcripts from SDSU and official transcripts from all other colleges and universities attended including any current coursework-in-progress to verify completion of or enrollment in these courses.
4. **Grade Point Average.** Candidates must have attained a grade point average of at least 2.67 in all baccalaureate and postbaccalaureate coursework or a grade point average of at least 2.85 in the last 60 semester units attempted. Candidates are required to submit official transcripts from all colleges and universities attended and unofficial transcripts for SDSU coursework for GPA calculations.
 5. **Letters of Recommendation.** Candidates must submit two letters of recommendation from individuals who know the candidate well (but are not related by blood or marriage) and who can comment directly on factors such as the candidate's qualifications for a teaching career in a multicultural setting, work or educational experiences, experience teaching or supervising students or other groups of individuals, personal character, and/or potential for success as a teacher. The signed letters may be hand carried and do not need to be confidential or in sealed envelopes, but must be on letterhead stationery (name, address, and phone number of sender included.) If the letters are not on letterhead, the name, address, and phone number of the sender must be typed on the letter.
 6. **TB Clearance.** Evidence of a negative tuberculosis test (these tests are valid for four years and must be in effect during the time that candidates are enrolled in the credential program). Clearance statements may be secured from Health Services, private physicians or HMO's, or public health agencies.
 7. **California Certificate of Clearance.** This certificate represents a background clearance and check conducted by the State Department of Justice and Federal Bureau of Investigation. Turn-around time for the clearance can take as long as eight months. Possessors of K-12 California credentials may satisfy this requirement by submitting copies of those certificates. Candidates must submit the application directly to the California Commission on Teacher Credentialing. A copy of the application must be provided to the School of Teacher Education.
 8. **Early Field Experience.** Candidate must successfully complete a minimum of 30 hours of observation and participation in a "regular" classroom in public elementary schools. This documented through the *Early Field Experience Guide* — *Multiple Subject* available in the SDSU Bookstore in the book stacks under "Teacher Education." The guide is also available for downloading from the School of Teacher Education Web site at <http://edweb.sdsu.edu/ste/teach.htm>. Either the original or a photocopy of the Early Field Experience Guide must be turned in as part of the application to the credential program.
 9. **Personal Narrative.** The narrative should address the following items:
 - a. The candidate's interest in and motivation for a teaching career in a multicultural setting;
 - b. The candidate's personal background and experience in working with children in multicultural settings;
 - c. Other experiences personally considered important in the teacher preparation process;
 - d. Any abilities, knowledge, skills, or experience that will enhance the candidate's effectiveness as a teacher (e.g., ability to speak another language, play a musical instrument, use technologies, or experience working with individuals with disabilities or special needs).
 10. **Appeals Process.** Candidates who do not meet all the admission requirements may petition the Multiple Subject Admissions and Retention Committee for individual consideration; petition forms must be submitted concurrently with the application packets.

In addition to the minimum admissions standards identified above, the Multiple Subject Admissions and Retention Committee also may consider qualifications such as previous teaching experience, relevant working experience with children, and second language ability. Due to the number of applicants, application to the program does not ensure admission.

NOTE: *Appointments for discussion of individual concerns relative to the credential program may be made with the Multiple Subject Credential Program Adviser during the academic year through the School of Teacher Education, BA-255, 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

	Units
TE 902 Classroom Management Skills	1
TE 910A Teaching Mathematics in the Elementary School.....	3
TE 910B Teaching Social Studies in the Elementary School.....	3
TE 910C Teaching Science in the Elementary School	3
TE 923 Psychological Foundations of Education	3
TE 930 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
EDTEC 470* Technologies for Teaching.....	2
PLC 915A Teaching and Learning in the Content Area: English Language Development/SDAIE	3
Total Units	42

* On the first day of EDTEC 470, students will take a test that focuses on computer literacy. Students who do not achieve the minimum score will be required to enroll in EDTEC 270A (1 unit).

Single Subject Credential (Secondary Education) (Credential Code: 00100)

Single Subject—Preliminary Credential

Persons interested in teaching in the traditional secondary school will typically pursue the Single Subject credential which authorizes teaching service in departmentalized, subject matter classrooms in preschools, grades K-12, and in classes organized primarily for adults (classes where instruction is provided in only one subject). Candidates must verify subject matter competency in one of the following subject fields:

ACCEPTABLE SINGLE SUBJECT CREDENTIAL AREAS AND APPLICABLE MAJORS

Art: Art

English language arts: Comparative Literature, English

Foreign languages: Classics (Latin), Spanish

Science: Biology, Chemistry, Geological Sciences, Physical Science

Mathematics: Mathematics

Music: Music

Physical education: Kinesiology (Specialization in Physical Education)

Social science: Social Science

Recommendation for this credential requires:

1. A baccalaureate or higher degree.
2. Completion of an approved program of professional education, including student teaching with a grade point average of 3.0 or higher.
3. Basic skills competency as demonstrated through passing scores on the California Basic Educational Skills Test (CBEST).
4. Demonstrated subject matter competency through completion of an approved waiver program in one of the California Single Subject areas, through a combination of coursework and competency examinations, or through California Subject Examinations for Teachers (CSET). Candidates should check with the School of Teacher Education, BA-255, to clarify the appropriate means for satisfaction of the subject matter competency requirement in their subject matter area(s). Competency must be verified and assessed by a designated departmental adviser regardless of the means of establishing knowledge proficiency.
5. Demonstrated knowledge of the principles and provisions of the United States Constitution through successful completion of a three-unit collegiate-level course or examination. Courses are listed in the section of this catalog on "Graduation Requirements," IV. American Institutions Requirement.
6. Current certification in cardiopulmonary resuscitation (CPR).

NOTE: *Undergraduate students in the Single Subject credential program may register for concurrent postbaccalaureate credit in their final semester prior to obtaining a baccalaureate degree as explained in the section of this catalog on "General Regulations."*

Admission Standards and Qualifications for the Single Subject Credential Program

Candidates for the Single Subject Credential Program must satisfy the standards and qualifications listed below and submit complete application packets to the School of Teacher Education, BA-255. Contact the School of Teacher Education for application dates.

Completed application packets will include items verifying satisfaction of the following:

1. **CBEST Examination.** Students must pass the California Basic Educational Skills Test (CBEST) prior to admission to the Single Subject Credential Program. Information may be obtained from the Office of Student Testing, Assessment and Research, SS-2549. Candidates are urged to take this examination as early as possible. Candidates are required to submit a photocopy of the individual score reports.
2. **Subject Matter Competency.** Students must verify competency in a specified single subject area through a university assessment process which consists of reviewing coursework for completion of an approved teaching major or its equivalent at San Diego State University or another approved California teacher-training institution, passing scores on the appropriate CSET examinations. Competency will be assessed and verified by subject matter departments at SDSU. Requirements for the various single subject majors are listed with the academic majors in this catalog. Early submission of completed application packets is encouraged to facilitate enrollment and preference in block placement. Applicants submitting materials late in the term may be considered on a "space available basis" only. Test scores submitted for verification of subject matter competency are valid for five years from the date of the examination. Information and registration materials for all current examinations are available at the School of Teacher Education, BA-255.

3. Prerequisite Courses. These courses or approved equivalents must be completed with grades of "C," "CR," or higher no more than five years prior to admission to the Single Subject Credential Program. The course may be in progress at the time of program application. Proof of registration is required to be considered for admission.

- 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.
- Health and Human Services 280, "Health Education for Teachers."** This course provides topics designated in the Health Framework for California to include how to infuse health topics into the general curriculum.
- Special Education 450, "Classroom Adaptations for Special Populations."** This course provides strategies for adapting curriculum, differentiating instruction, meeting social and behavioral needs, and modifying assessments for students with disabilities and/or gifted and talented students in general education classrooms.

4. Grade Point Average. Candidates must have attained a grade point average of at least 2.67 in all baccalaureate and postbaccalaureate coursework or a grade point average of at least 2.85 in the last 60 semester units attempted. Candidates are required to submit official transcripts from all colleges and universities attended and unofficial copies of transcripts for SDSU coursework for GPA calculations.

5. Letters of Recommendation. Candidates must submit two letters of recommendation from individuals who know the candidate well (but are not related by blood or marriage) and who can comment directly on factors such as the candidate's qualifications for a teaching career in a multicultural setting, work or educational experiences, experience teaching or supervising students or other groups of individuals, personal character, and/or potential for success as a teacher. The signed letters may be hand carried and do not need to be confidential or in sealed envelopes, but must be on letterhead stationery (name, address, and phone number of sender included.) If the letters are not on letterhead, the name, address, and phone number of the sender must be typed on the letter.

6. TB Clearance. Evidence of a negative tuberculosis test (these tests are valid for four years and must be in effect during the time that candidates are enrolled in the credential program). Clearance statements may be secured from Health Services, private physicians or HMO's, or public health agencies.

7. California Certificate of Clearance. This certificate represents a background clearance and check conducted by the State Department of Justice and Federal Bureau of Investigation. Turnaround time for the clearance can take as long as eight months. Possessors of K-12 California credentials may satisfy this requirement by submitting copies of those certificates. Candidates must submit the application directly to the California Commission on Teacher Credentialing. A copy of the application must be provided to the School of Teacher Education.

8. Early Field Experience. Candidate must successfully complete a minimum of 30 hours of observation and participation in a "regular" classroom in public secondary schools. This documented through the *Early Field Experience Guide – Single Subject* available in the SDSU Bookstore in the book stacks under "Teacher Education." The guide is also available for downloading from the School of Teacher Education Web site at <http://edweb.sdsu.edu/ste/teach/htm>. Either the original or a photocopy of the Early Field Experience Guide must be turned in as part of the application to the credential program.

9. Personal Narrative. The narrative should address the following items:

- The candidate's personal background and experience working with children in multicultural settings;
- The candidate's other experiences personally considered important in the teacher preparation process;
- The candidate's interest in and motivation for a teaching career in a multicultural setting and;
- Any abilities, knowledge, skills, or experience that will enhance the candidate's effectiveness as a teacher (e.g., ability to speak another language, use technologies, or experience working with individuals with disabilities or special needs).

10. Appeals Process. Candidates who do not meet all the admission requirements may petition the Single Subject Admissions and Retention Committee for individual consideration; petition forms must be submitted concurrently with the application packets.

In addition to the minimum admissions standards identified above, the Single Subject Admissions and Retention Committee also may consider qualifications such as previous teaching experience, relevant working experience with children, and second language ability. A personal interview may also be necessary. Due to the number of applicants, application to the program does not ensure admission.

NOTE: *Appointments for discussion of individual concerns relative to the credential program may be made with the Single Subject Credential Program Adviser during the academic year through the School of Teacher Education, BA-255, 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

	Units
TE 903 Secondary School Student Teaching Seminar Cr/NC	2
TE 914 Teaching and Learning in the Content Area: Major	3
TE 922 Behavioral and Psychological Aspects of Teaching	3-4
TE 933 Teaching of Reading in the Secondary School	3
TE 954 Humanistic and Social Aspects of Teaching	4
TE 963 Secondary School Student Teaching I Cr/NC/RP	4
TE 964 Secondary School Student Teaching II Cr/NC/RP	12
EDTEC 470 Technologies for Teaching	3
PLC 915B Teaching and Learning in the Content Area: English Language Development/SDAIE	3
Total Units 37-38	

Information Applicable to Both Multiple Subject and Single Subject Credentials

Departmental admission to either the Multiple Subject or Single Subject credential program does not constitute admission to the university. Candidates who are entering the university for the first time, or who have graduated or who are graduating, and are planning to re-enroll for the credential program must file a separate application for admission to the university during the regular university application period.

Advanced Standing in Teacher Education

A student transferring into San Diego State University to complete requirements for either the Preliminary or Professional Clear Multiple Subject or Single Subject credential must complete a minimum of six units of professional education coursework in residence at SDSU in order to be recommended for certification regardless of the extent of education work completed at other institutions.

Evaluation of Credits

After an interval of five years, courses in education are reevaluated and subject to reduction in credit, in light of new requirements and changes in educational procedures. All courses taken either at this university or elsewhere must be approved by an official adviser in order to be credited toward meeting credential requirements or pattern requirements for a degree.

GPA Requirements For Continuation in Multiple Subject/Single Subject Credential Programs

A grade point average of 3.0 must be maintained each semester to permit a student to continue in the Multiple Subject and Single Subject credential programs.

Supplementary Authorizations

With completion of additional units in certain curriculum areas, both Single and Multiple Subject teachers can be granted supplementary authorizations to teach in generalized areas in middle and junior high schools (e.g., Introductory English). Single subject teaching credential candidates can also be granted supplementary authorizations to teach in specialized areas K-12 (e.g., psychology). Information on requirements for these supplementary authorizations is available through the Credentials Processing Center, BA-250.

Description of Interdepartmental Major for Elementary Teaching

**Liberal Studies Major
With the B.A. Degree in Applied Arts and Sciences
(Major Code: 49015)**

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

Refer to the section of the catalog on "Liberal Studies" for an outline of the requirements for this major.

The following coursework is required for acceptance into the education program and may be included in the Liberal Studies major unless otherwise noted:

Education 451

Mathematics 210

General advising for the Liberal Studies major is available at the Academic Advising Center.

Children's Literature Certificate

No new students are being admitted to this certificate program.

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)

Refer to *Courses and Curricula and University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

Note to all Multiple Subject and Single Subject credential candidates: All credential courses are listed and described in the *Bulletin of the Graduate Division* under the 900-series courses.

LOWER DIVISION COURSES

TE 211. Field Experience in Mathematics and Science (1) Cr/NC I,II

Two hours of activity and 10 hours of fieldwork.

Prerequisite: Recommended for sophomore or higher level students.

Guided classroom observations for prospective single subject mathematics and science teachers. Current issues in mathematics and science education and strategies that promote professional development. Issues related to teaching in culturally and linguistically diverse school settings.

TE 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

TE 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.

TE 362. Fieldwork in Community Settings (1-4)

One lecture and two to six hours of activity.

Prerequisites: Consent of instructor and intent to enroll in teaching credential programs.

Tutoring process and teaching strategies for the content being tutored. Maximum credit six units.

TE 397. Problems in Education (Credit to be arranged) I, II (Offered only in Extension)

Prerequisite: Consent of instructor.

Class study of specially selected problems in education. Does not apply to pattern requirements for credentials. Credit earned in this course not applicable to a bachelor's degree.

TE 402. Foundations of Education (3) I, II **(Offered only at IVC)**

Prerequisite: Admission to multiple or single subject teaching credential program.

Combines disciplines of anthropology, economics, history, philosophy, political science, psychology, and sociology to introduce student to concepts and generalizations informing the teaching and learning process in modern classrooms.

TE 415. Methods and Materials of Instruction (3) I, II **(Offered only at IVC)**

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.

TE 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

TE 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor. Open only to senior and graduate students in education who have shown ability to work independently.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES **(Also Acceptable for Advanced Degrees)**

TE 511. Assessment in Mathematics Education (3)

Techniques to assess and develop students' mathematical understanding. For use by elementary and secondary classroom teachers and mathematics education specialists.

TE 525. Discipline and Classroom Management (3) **(Offered only at IVC)**

Prerequisite: Six upper division units in education, psychology or sociology.

Analysis of research and theories of classroom discipline, management, and teaching effectiveness, with practical application to the elementary and secondary classroom setting.

TE 526. Teaching the Special Child in the Regular Classroom (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.

TE 530. Children's/Adolescents' Literature (3) I, II

Survey of children's/adolescents' literature and its incorporation into the classroom curriculum.

TE 596. Topics in Teacher Education (1-3 or 6) RP* I, II

Designed to meet the needs of individuals or groups of teachers who wish to develop or continue the study of some problem. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum six units of 596 and 696 applicable to a 30-unit master's degree.

* Specified sections.

GRADUATE COURSES **Refer to *Bulletin of the Graduate Division*.**

Theatre, Television, and Film

OFFICE: Dramatic Arts 204
TELEPHONE: 619-594-6363
FAX: 619-594-7431
<http://ttf.sdsu.edu>

In the College of Professional Studies and Fine Arts

Accredited by the National Association of Schools of Theatre.

Faculty

Emeritus: Anderson, Annas, Blue, Harvey, A.C., Harvey, M., Heighton, Howard, Jameson, Johnson, Jones, Lee, Madsen, Martin, McKerrow, Meador, Real, Stephenson, Witherspoon, Wylie

Director: Reid

The Don W. Powell Chair in Scene Design: Funicello

Filmmaker in Residence: Ofield

Professors: Durbin, G., Kalustian, Larlham, P., O'Donnell, Ofield, Reid, Reinholz, Salzer, Schreiber, Wolf

Associate Professors: Durbin, H., Freeman, Larlham, M.

Assistant Professors: Cirino, Morrison, Powell

Lecturers: Kahn, Keith, Pierson, Sheehan, Simas

Offered by the School

Master of Arts degree in theatre arts.

Master of Fine Arts degree in theatre arts.

Master of Arts degree in television, film and new media production.

Major in theatre arts with the B.A. degree in applied arts and sciences.

Emphasis in children's drama.

Emphasis in design and technology for the theatre.

Emphasis in design for television and film.

Emphasis in performance.

Major in television, film and new media production with the B.S. degree in applied arts and sciences.

Major in communication with the B.A. degree in liberal arts and sciences.

Emphasis in telecommunications and film.

Minor in theatre arts.

Minor in television, film and new media.

The Don W. Powell Chair in Scene Design

The Don W. Powell Chair in Scene Design was established through a trust provided by the late professor emeritus. Professor Powell, who retired after 30 years with the theatre department, created the trust in order to enhance theatre education at SDSU. The current holder of The Don W. Powell Scene Design Chair is the nationally acclaimed designer Ralph Funicello.

Filmmaker in Residence

The position of Filmmaker in Residence is unique in the CSU system. It was established to provide a professional link between the Television and Film program and the media industry in a rapidly evolving technological environment. The Filmmaker in Residence is the film and television producer, Jack Ofield.

Distinguished Visiting Artists

Through the generosity of the College of Professional Studies and Fine Arts, the School of Theatre, Television, and Film is fortunate to have Edward Albee and Marion Ross, two distinguished theatre artists, spend time with students and faculty each year. Edward Albee has for many years come to San Diego State University each spring. He is the recipient of many honors including three Pulitzer prizes and

is best known for his play "Who's Afraid of Virginia Woolf." Marion Ross is a graduate of our program and has had an illustrious career in theatre, television, and film. For many years, she played the mother on the TV series "Happy Days." Both Mr. Albee and Ms. Ross generously share their insights and are examples for our students of the highest professional achievements.

General Information

The School of Theatre, Television, and Film has a threefold mission: 1) to provide quality education on the undergraduate and graduate levels for students seeking careers in all areas of theatre and media; 2) to support the university's central mission to educate the whole person in the liberal arts tradition; and 3) to foster academic and creative interaction between established and emerging artists on campus and off. The School is specifically geared to assist students in their efforts to seek professional work in various fields of theatre and media, to seek teaching positions at all levels, and to contribute to the cultural life of the community.

A strong, accomplished faculty of teacher-scholar-artists and a broad cross-arts curriculum guide students toward an understanding of how the arts interact, as well as an appreciation of the significant role of the arts in civilized society and the pursuit of human happiness. Supervised internships with theatre companies, television stations, film companies, individual artists, schools and academies provide students with important practical experience for their future careers. The value of academic coursework or internships completed as part of an international experience is stressed.

The bachelor's degree in Theatre Arts prepares students for careers as actors, directors, playwrights, stage and theatre managers, designers, teachers, and more. Students may pursue a general emphasis in theatre arts or specialize in a single emphasis area (Performance, Children's Drama, Design and Technology, Design for Television and Film). The program encourages involvement in all aspects of production, from direction and performance to dramaturgy and design. In addition to a broad spectrum of courses, the School presents an annual six-play season, open to the San Diego community, affording students numerous design and performance opportunities. The study and public performance of musicals, classical and contemporary drama, and plays for young audiences are key components of the program. Further professional growth opportunities are provided through association with regional theatre companies as well as visits to campus by theatre professionals.

The bachelor's degree in Television, Film and New Media Production is designed to prepare students in the moving image arts for careers as producers, directors, writers, art directors, editors, sound and lighting designers, cinematographers, videographers, sound engineers, and animators, as well as careers in new media production. The program's professional focus on storytelling, both fiction and nonfiction, using sound and moving images, includes theory, philosophy, and technique. The integrated film-television program implicitly acknowledges that these media are a fundamental facet of contemporary culture, not only in terms of presenting fictional stories that help define our culture's values and problems, but also in terms of presenting news, politics, topical issues, and historic events in "documentary" form. State-of-the-art methods are a part of all of the film and media production courses, several of them heavily focused on new media and the infrastructure of the Information Age. The TFM program

has been in the vanguard of the move to seamlessly combine film, television and digital technologies to better prepare students for the challenging future. In addition to an array of courses, TFM provides annual industry screenings, festival screenings, and television exposure for outstanding student productions.

The School of Theatre, Television and Film operates teaching facilities that include the 500-seat Don Powell Theatre, a 200-seat experimental theatre, and a 281-seat film screening theatre; scenic and costume construction facilities for both theatre and film; a large color television studio, computer labs, digital editing bays, and a Maya animation lab. Research facilities include a historical costume collection, a design research center, an extensive musical theatre archive, and the STAR Lab for technical theatre research.

Impacted Programs

All programs in the School of Theatre, Television, and Film are impacted. To be admitted to the selected program, refer to the program description for specific impacted criteria.

Theatre Arts Major

With the B.A. Degree in Applied Arts and Sciences
(Major Code: 10071)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

Neither a minor nor a foreign language is required with this major.

Impacted Program. The theatre arts major is an impacted program. To be admitted to the General Theatre Arts Program or the Emphasis in Children's Drama, students must meet the following criteria:

- 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);
- Have a cumulative GPA of 2.40 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

General Theatre Arts Program

Preparation for the Major. Theatre 100, 107, 110, 120, 130, 231, 240A, 240B, 240C (27 units). Theatre 100, 107 or 120, and 130 must be completed with a grade of C or higher and cannot be taken credit/no credit (Cr/NC).

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 38-39 upper division units in theatre to include Theatre 325, 359, 425, 446A (one unit), 446B (one unit), 460A, 460B, 465; and 18-19 units selected from the following sequences of which three units must be selected from *Design* and six units from *Performance*:

Design: 3-6 units selected from Theatre 440, 447, 452, 548.

Technical Theatre: 4 units selected from Theatre 349, 448, 541, 545, 549, 554B.

Performance: 6-9 units selected from Theatre 310, 315, 332, 350, 351, 459.

Management: 2-3 units selected from Theatre 345 or 475A.

Emphasis in Children's Drama

Preparation for the Major. Theatre 100, 107, 110, 120, 130, 240A, 240B, 240C (24 units). Theatre 100, 107 or 120, and 130 must be completed with a grade of C or higher and cannot be taken credit/no credit (Cr/NC).

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 35 upper division units to include Theatre 310, 315, 325, 359, 425, 446A (one unit), 446B (one unit), 460A, 460B, 510, 580; Teacher Education 530; and three units selected from Theatre 329A, 329B, 440, 447, 452, 459, 475A, 475B.

Emphasis in Design and Technology for the Theatre

To declare an Emphasis in Design and Technology for the Theatre Arts major, in addition to the criteria for admission to the General Theatre Arts program, students must complete the following:

- Theatre 240A and 240B (or transfer equivalent of these courses);
- Theatre 107, 240A, and 240B with a GPA of 2.7;
- Submit a portfolio of design work (see undergraduate design adviser for details). Transfer students should include a letter of support from previous school if no design work is available.

Preparation for the Major. Theatre 100, 107, 120, 130, 240A, 240B, 240C (21 units). Theatre 100, 107 or 120, and 130 must be completed with a grade of C or higher and cannot be taken credit/no credit (Cr/NC). Theatre 240A and 240B must also be completed. Theatre 107, 240A, and 240B must be completed with a minimum GPA of 2.7.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 40 upper division units in theatre to include Theatre 325, 359, 425, 440, 442A or 442B, 446A (one unit), 446B (one unit), 447, 452, 460A, 460B, 530A or 530B; and three units selected from Theatre 540, 547, 548, 552; and six units selected from Theatre 349, 448, 539, 541, 545, 546, 549, 550, 554A, 554B. Recommended electives: Theatre 345, 475A, 551, 570A, 570B.

Emphasis in Design for Television and Film

To declare an Emphasis in Design for Television and Film, in addition to the criteria for admission to the General Theatre Arts program, students must complete the following:

- Theatre 240A and 240B (or transfer equivalent of these courses);
- Theatre 107, 240A, and 240B with a GPA of 2.7;
- 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). Theatre 100, 107, and 130 must be completed with a grade of C or higher and cannot be taken credit/no credit (Cr/NC). Theatre 240A and 240B must also be completed. Theatre 107, 240A, and 240B must be completed with a minimum GPA of 2.7.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 48 upper division units to include Television, Film and New Media 320, 350, 550; Theatre 325, 359, 425, 440, 442A or 442B, 446A (one unit), 446B (one unit), 447, 452, 460A, 460B, 530A or 530B; six units selected from Television, Film and New Media 401, 551, Theatre 540, 547, 548, 552; and two units selected from Theatre 448, 539, 541, 545, 546, 549, 550, 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:

- Theatre 110, 231 (or transfer equivalent of these courses) and Theatre 332;
- GPA of 2.5 or higher in the above courses;
- 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). Theatre 100, 107 or 120, and 130 must be completed with a grade of C or higher and cannot be taken credit/no credit (Cr/NC). Theatre 110, 231, and 332 must also be completed. Theatre 110, 231, and 332 must be completed with a GPA of 2.5 or higher.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Rhetoric and Writing Studies 305W or 500W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 35-36 upper division units in theatre to include Theatre 320A or 320B, 325, 332, 355, 359, 425, 446A (one unit), 446B (one unit), 446C (two units), 460A, 460B and either 551, 523 or 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.

Television, Film and New Media Production Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 06031)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." To complete the television, film and new media production major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

The B.S. degree is designed to prepare students for professions in television, film and new media production. The degree also serves those in occupations where extensive knowledge is required of message design for these media and their various distribution systems. This program focuses on skills required for careers as producers, directors, art directors, production assistants and writers, as well as emerging careers in new media production.

Impacted Program. The television, film and new media production major is designated as an impacted program. To be admitted to the television, film and new media major, students must meet the following criteria:

- 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);
- Complete a personal statement to be evaluated by the faculty;
- Submit two letters of recommendation to be evaluated by the faculty;
- Complete a minimum of 15 transferable semester units;
- Have a cumulative grade point average of 3.00 or higher;
- Submit samples of creative work;
- Submit a treatment for a 1-3 minute production (fiction or nonfiction).

Preparation for the Major. Theatre 100, 120; Television, Film and New Media 110, 121, 122, 123, 160, 260, 261 (27 units). Theatre 100 and Television, Film and New Media 160 must be completed with a grade of B or higher and cannot be taken credit/no credit (Cr/NC).

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or Communication 310W, or Rhetoric and Writing Studies 305W with a grade of C

(2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 36 upper division units to include Television, Film and New Media 320, 322, 327, 401, 510, 560 or 561; 15 units selected from Television, Film and New Media 321, 330, 350, 363, 364, 390, 435, 490, 499, 522, 550, 551, 555, 562, 565, 569; and three units selected from History 435, Music 351, or Theatre 359. A minor is not required with this major.

Communication Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 06033)

Emphasis in Telecommunications and Film
With the B.A. Degree in Liberal Arts and Sciences

No new students will be admitted to this emphasis.

To complete the telecommunications and film emphasis, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

Impacted Program. The telecommunications and film emphasis is designated as an impacted program. To be admitted to the telecommunications and film major, students must meet the following criteria:

- 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);
- Complete a personal statement to be evaluated by the faculty;
- Submit two letters of recommendation to be evaluated by the faculty;
- Have a cumulative grade point average of 3.00 or higher.

Preparation for the Major. Communication 200; Television, Film and New Media 110, 160; and six units selected from Television, Film and New Media 121, 122, 123. (15 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or Communication 310W or Rhetoric and Writing Studies 305W with a grade of C (2.0) or better. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 24 upper division units to include Communication 300, 440, 460, and 480; and 12 units of upper division electives in the School of Communication approved by the adviser. Students selecting the telecommunications and film emphasis are required to complete a minor outside the School of Communication.

Theatre Arts Minor

Theatre 100 is prerequisite to the theatre arts minor and does not count towards the units required for the minor.

The minor in theatre arts consists of 24 units in theatre to include Theatre 107, 120; 115 or 345; 460A or 460B; and three units selected from Theatre 240A, 240B, or 240C; three units selected from Theatre 310, 315, or 325; and six units selected from Theatre 355, 442A, 442B, 475A, or 555.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and General Education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Television, Film and New Media Minor

(Minor Code: 06031)

The minor in television, film and new media is designed for students in business, English, music, prelegal, theatre or other majors related to the writing, production and distribution of media. The minor consists of 21 units to include Television, Film and New Media 110, 160, 320; Theatre 100; six units selected from Television, Film and New Media 363, 364, 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

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES IN THEATRE (THEA)

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.

THEA 107. Design Communication and the Audience Response (3) I, II

Use of visual and aural design components by the actor, director, and designer in relation to audience response. Preparatory to theatre arts major sequence.

THEA 110. Voice and Speech I (3) I, II (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.

THEA 115. Acting for Nonmajors (3) I, II

Improvisational exercises (verbal and nonverbal) in sensory awareness, observation, concentration, listening, and response skills with application to other fields. Individual presentation techniques for the preprofessional in other disciplines.

THEA 120. Heritage of Dramatic Literature (3) I, II

Three lectures and attendance at selected performances. Survey of dramatic literature from classical to the modern period, including classical, medieval, Renaissance, Restoration, neoclassical, romantic, realistic and modern plays.

THEA 130. Acting I (3) I, II (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.

THEA 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.

THEA 240A. Theatre Design and Technology I (3) I, II

Two lectures and three hours of laboratory.
Prerequisites: Theatre 100 and 107. **Proof of completion of prerequisites required:** Copy of transcript.
Design, technical practices, and production organization for the theatre; scenery and stagecraft.

THEA 240B. Theatre Design and Technology II (3) I, II

Two lectures and three hours of laboratory.
Prerequisites: Theatre 100 and 107. **Proof of completion of prerequisite required:** Copy of transcript.
Design, technical practices, and production organization for the theatre: costume technology.

THEA 240C. Theatre Design and Technology III (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.

THEA 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES IN THEATRE (Intended for Undergraduates)

THEA 310. Creative Drama I (3) I, II, S

Current philosophies, principles, and techniques of creative drama. Development of the individual through use of dramatic play, imaging, improvisation, and theatre games. Applicable to classroom teaching, counseling, recreation, and senior citizen programs.

THEA 315. Theatre for Young Audiences (3) I, II

Current philosophies and practices in theatre for young audiences. Techniques of selecting and producing plays for and with youth. Theatre styles, script analysis, and functions of the production team.

THEA 320A-320B. Voice and Speech II (3-3) II

Prerequisites: Theatre 320A: Theatre 110. Theatre 320B: Theatre 110 and cast in department production.

Techniques of vocal expression in the theatre, primarily in plays with heightened and elevated speech, e.g. Shakespeare and classic Greek drama. Maximum credit six units for Theatre 320B.

- A. Select Heightened Speech From the Greeks to Today
- B. Performing Specific Character in Department Production

THEA 325. Script Analysis (3) I, II

Prerequisites: Theatre 100, 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.

THEA 329A-329B. Practicum in Theatre for Young Audiences Cr/NC (329A: 2 units) (329B: 1 unit)

Two hours of activity per unit.
Prerequisite: Theatre 315.
Practical experience in department public performances of plays for young audiences.
A. Rehearsal
B. Performance

THEA 332. Acting III (3) I, II

Prerequisites: Theatre 110, 130, 231, and by audition.
Continuation of Theatre 231, emphasizing analysis of literary text in process of creating characters. Scene study and role preparation of significant texts by modern playwrights. May be repeated once with consent of instructor.

THEA 345. Theatre Marketing and Publicity (3) I, II

One lecture and four hours of activity.
Prerequisite: Theatre 100 or 107.
Practical experience in marketing and publicity for theatres, including PSA's, press releases, layout-graphics for written materials, magazine and newspaper advertisements, marketing strategy and campaign development for a full theatre season.

THEA 349. Theatrical Makeup (2) I

Two hours per unit.

Prerequisite: Theatre 240B.

Planning and application of makeup for stage, film, and television. Classroom exercises and production-related activities.

THEA 350. Musical Theatre Performance I (3) I

Two lectures and three hours of laboratory.

Prerequisites: Theatre 332 and by audition.

Basic performance techniques in musical theatre. Emphasis on application of acting theory to musical theatre literature. Maximum credit six units.

THEA 351. Musical Theatre Performance II (3) II

Two lectures and three hours of laboratory.

Prerequisites: Theatre 332 and by audition.

Vocal selections and scenes in musical theatre. Emphasis on characteristics and performance styles. Maximum credit six units.

THEA 355. Movement for the Theatre I (2) II

Two hours of activity per unit.

Prerequisites: Theatre 332 and by audition for majors. Theatre 115 for theatre minors.

Locomotor and axial body movement for the stage director and actor; introduction to mime. Relationship between body expression and character portrayal.

THEA 359. Directing I (3) I, II

Prerequisites: Theatre 130, 240B, 240C, 325. **Proof of completion of prerequisite required:** Copy of transcript.

Principles and techniques of directing for the stage: play selection, analysis, and interpretation; casting methods; stage composition and movement; and rehearsal procedures.

THEA 425. Production Synthesis (3) I, II

Prerequisites: Theatre 240B, 240C, and 359. **Proof of completion of prerequisites required:** Copy of transcript.

Capstone course integrating artistic vision and production considerations through synthesis of text analysis, performance, and design in collaborative process unique to the theatre.

THEA 431. Workshop in Improvisational Acting (3) I

Prerequisite: Theatre 332 and by audition.

Theories and principles of improvisational acting.

THEA 434. Audition Techniques for the Actor (3) 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.

THEA 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.

THEA 442A-442B. Practicum in Theatrical Production (2-2) I, II

Two hours of activity per unit.

Prerequisite for 442A: Theatre 240A. Prerequisite for 442B: Theatre 240B for majors. Theatre 240A or 240B for theatre minors.

Technical theatre production experience for departmental public performances.

A. Scenery Construction

B. Costume Construction

THEA 446A-446B. Practicum in Performance (1-1) Cr/NC I, II

THEA 446C. Practicum in Performance (1-3) Cr/NC I, II

Two hours per unit.

Prerequisite for 446A: Theatre 240A. Prerequisite for 446B: Theatre 240B. Prerequisite for 446C: Theatre 100.

Practical experience in departmental public performances. (Theatre 446C formerly numbered Theatre 445A; Theatre 446A and 446B formerly numbered Theatre 445B.)

A. Stage Crew. Maximum credit three units for Theatre 446A.

B. Costume Crew. Maximum credit three units for Theatre 446B.

C. Cast Member. Maximum credit six units for Theatre 446C.

THEA 447. Lighting Design I (3) II

Two lectures and three hours of laboratory.

Prerequisites: Theatre 240C and 325.

Concepts and technologies in lighting for theatre and related performance areas. Emphasis on mechanics of stage lighting, color, instruments, and control. Laboratory and production related activities.

THEA 448. Theatre Technology (2) I

Two lectures and three hours of laboratory.

Prerequisite: Theatre 240A.

Current materials and practices of theatre technology. Advanced construction techniques; stage machinery design and control; special effects; computer applications for stage operations; budget, research, and management procedures.

THEA 452. Costume Design I (3) II

Two lectures and three hours of laboratory.

Prerequisites: Theatre 240B and 325.

Theory and creative application of principles of costume design for various types of production. Emphasis on concept development, character interpretation, research methods, color organization, and fabric selection. Laboratory and production related activities.

THEA 459. Directing II (3) II

Two lectures and two hours of activity.

Prerequisites: Theatre 359 and consent of instructor.

Experience and group evaluation in directing one-act plays before an audience. Attendance at selected public performances required. Maximum credit six units.

THEA 460A-460B. History of the Theatre (3-3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities. Prerequisite not required for theatre arts majors.

Theatre from primitive times to the present. Special attention given to the theatre as a mirror of the social and cultural background of various countries and periods in which it is studied. Theatre 460A is not prerequisite to 460B.

THEA 465. Theatre of Diversity (3) II

Prerequisite: Theatre 325 for theatre majors. Completion of the General Education requirement in Foundations II.C., Humanities for nonmajors.

Racial, ethnic, political, and social diversity of American landscape as reflected in works of major playwrights of diversity.

THEA 475A. Stage Management—Theory (2) I, II

Prerequisites: Theatre 240B and 240C for majors. Theatre 240A, 240B, or 240C for theatre minors.

Development of the prompt script, organizational methods, and collaborative personnel interaction. Maximum credit four units.

THEA 475B. Stage Management—Practicum (3) I, II

Six hours of activity.

Prerequisite: Theatre 475A.

Practical experience in stage managing department productions. Maximum credit six units.

THEA 490. Theatre Internship (1-3) Cr/NC I, II

Prerequisite: Theatre 325; internship contract must be completed prior to registration.

Work with approved theatre organizations off-campus under the combined supervision of theatre personnel and instructors. Maximum credit three units.

THEA 496. Experimental Topics (1-4) I, II

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

THEA 499. Special Study (1-3) I, II

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES IN THEATRE (Also Acceptable for Advanced Degrees)

THEA 510. Creative Drama and Language Arts (3) I

Prerequisite: Theatre 310.

Advanced techniques in using creative drama to teach literature and language. Emphasis on use of drama in teaching of reading and world literature. Practical experience through fieldwork in elementary or middle school classrooms.

THEA 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.

A. Nineteenth Century Viennese Operetta through 1950

B. 1950 to Present

THEA 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.

THEA 521B. History of Musical Theatre Laboratory (1) Cr/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.

THEA 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.

THEA 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 text analysis, dramatic theory and criticism, historical research, and dramatic literature. Attendance at select plays required.

THEA 530A-530B. Period Dress and Decor (3-3) II

Prerequisite: Theatre 240B or graduate standing.

Visual survey of relationships and cultural significance of period dress, architecture, and decorative arts as applied to theatrical productions. Emphasis on significant historic periods in dramatic literature. Theatre 530A is not open to students with credit in Theatre 530.

A. Ancient World Through Eighteenth Century

B. NeoClassical Through Twentieth Century

THEA 532. Advanced Acting and Directing (3) I

Prerequisites: Theatre 332 and by audition.

Problems in characterization in contemporary drama, and in plays of Ibsen, Strindberg, Chekhov, and Shaw.

THEA 533A-533B. Theory and Styles in Acting and Directing I and II (3-3)

Prerequisites: Theatre 332 and by audition.

Acting and directing problems in theory and style related to the production of plays from great periods in theatre history, with attention to characterization, dramatic values, creative directing and production approaches.

THEA 539. Theatre Rendering (2) II

Four hours of activity.

Prerequisite: Theatre 240B.

Rendering for scenic, costume, and lighting designer. Techniques, media, and portfolio preparation. Maximum credit four units.

THEA 540. Scene Design II (3) I

Prerequisites: Theatre 440 and 530A or 530B.

History of scene design and application of contemporary styles to various types of dramatic production.

THEA 541. Scene Painting (2) II

Four hours of activity.

Prerequisite: Theatre 530A or 530B.

Theories and techniques of scene painting, including both historical backgrounds and modern procedures. Full-scale projects executed in scenery studio.

THEA 545. Mechanical Drawing for the Theatre (2) I

Four hours of activity.

Prerequisite: Theatre 240A or admission to MFA in Design.

Theatre drafting standards and techniques. Floor plans, sections, elevations, perspective drawings, and light plots.

THEA 546. CADD for the Theatre (2) II

Four hours of activity.

Prerequisite: Theatre 545.

Computer aided drafting applications for theatre designer.

THEA 547. Lighting Design II (3) I

Two lectures and three hours of laboratory.

Prerequisite: Theatre 447.

Advanced design theories and lighting practice for theatre and dance. Laboratory and production related activities.

THEA 548. Sound Design for the Theatre (3) I

Two lectures and two hours of activity.

Prerequisites: Theatre 240C and 325.

Theories and techniques of sound design and reinforcement for theatrical performance. Laboratory experience in sound production.

THEA 549. Lighting and Sound Technology (2) II

One lecture and three hours of laboratory.

Prerequisite: Theatre 447.

Use of electrics for the stage. Lighting, sound, computer. Practical applications emphasized.

THEA 550. Software for Theatrical Design (2) I

Four hours of activity.

Prerequisites: Theatre 440, 447, 452, or 546.

Application of computer software for theatre, including scenery, costume, lighting, and sound design.

THEA 551. Costume, Movement, and Manners (3) I

Prerequisite: Upper division standing or admission to the graduate program.

Interrelationship of period costumes and the movement and manners of selected historical periods; application to staging of plays from pre-modern theatre.

THEA 552. Costume Design II (3) I

Prerequisites: Theatre 452 and 530A or 530B.

Advanced studies in costume design. Emphasis on theatrical style, rendering layout, design problems, materials, and budget.

THEA 554A. Costume Design Technology I (2) I

Four hours of activity.

Prerequisite: Theatre 240B.

Current materials and practices of costume technology: advanced construction techniques, fabric selection and use, period pattern drafting, draping and cutting. Maximum credit four units.

THEA 554B. Costume Design Technology II (2) II

Four hours of activity.

Prerequisite: Theatre 240B.

Advanced costume craft construction techniques and management procedures for costume production: millinery, fabric dyeing and painting, jewelry, and related crafts. Maximum credit four units.

THEA 555. Movement for the Theatre II (2) I

Four hours of activity.

Prerequisite: Theatre 130 or admission to the M.F.A. program for majors. Theatre 115 required for theatre minors.

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.

THEA 570A-570B. Practicum in Theatrical Production (1-3) (1-3)

Prerequisite: Theatre 440, 447, or 452; or admission to MFA in Design.

Design projects in areas of scenery, costume, lighting, sound, or makeup. Maximum credit six units for 570A and six units for 570B.

A. Independent Study

B. Design for Department Public Performances

THEA 580. Theatre in the Classroom (3)

Prerequisites: Theatre 310 and 315.

Methods of teaching theatre in elementary, middle, and secondary schools. Emphasis on pedagogy, organization of curriculum, play selection, and principles of producing plays in the classroom.

THEA 596. Selected Topics in Theatre (1-3) I, II

Prerequisite: Twelve units in theatre.

A specialized study of selected topics from the areas of theatre. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a 30-unit master's degree.

**LOWER DIVISION COURSES IN TELEVISION,
FILM AND NEW MEDIA
(TFM)**

TFM 110. Telecommunications and Film Writing (3) I, II

Prerequisites: Satisfaction of the English Placement Test. Ability to type. **Proof of completion of prerequisites required:** Copy of EPT or competency scores or verification of exemption; proof of Cr in Rhetoric and Writing Studies 97, or notification from the Department of Rhetoric and Writing Studies.

Theory and practice in writing for electronic and film media. Introduction to techniques of narrative and documentary writing and scripting.

TFM 121. Audio Production (3) I, II

Two lectures and three hours of activity.

Prerequisites: Credit or concurrent registration in Television, Film and New Media 110.

Theory of audio production, use of digital recording, and editing equipment.

TFM 122. Basic 16MM Film Production (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.

TFM 123. Basic Video and TV Production (3)

Two lectures and three hours of activity.

Prerequisites: Credit or concurrent registration in Television, Film and New Media 110. Limited to television, film and new media production majors.

Video and TV production including studio and electronic field production. Practical instruction in documentary practices and techniques.

TFM 160. Cinema as Art and Communication (3) 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.

TFM 260. Intermediate 16MM Film Production (3)

Two lectures and more than three hours of activity.

Prerequisites: Television, Film and New Media 110, 121, 122, 123 with grade of C (2.0) or better. **Proof of completion of prerequisites required:** Copy of transcript.

Production of scene studies. Principles of film technique and theory. Focus on director's work in relation to cinematographer, sound designer, editor, and producer. Casting and directing actors.

TFM 261. Intermediate Video and TV Production (3)

Two lectures and more than three hours of activity.

Prerequisites: Television, Film and New Media 110, 121, 122, 123 with grade of C (2.0) or better. **Proof of completion of prerequisites required:** Copy of transcript.

Application of video production techniques to community based documentary practice. Practice of video and TV production. Emphasis on studio and sound stage. Responsibilities of producer, director, and production staff.

**UPPER DIVISION COURSES IN TELEVISION,
FILM AND NEW MEDIA
(Intended for Undergraduates)**

TFM 320. Film and Video Aesthetics (3) II

Prerequisite: Television, Film and New Media Production 160.

Ways cinematic texts (films and video) work as language systems and complex cultural products. Major film and video theorists analyzed according to their contribution to the field.

TFM 321. Sound Design for Video and Film (3)

Two lectures and two hours of activity.

Prerequisite: Television, Film and New Media 260.

Digital audio post-production for video, TV, and film. Includes field acquisition, Foley, editing, and assembling.

TFM 322. Cinematography for Television and Film (3)

Two lectures and three hours of laboratory.

Prerequisites: Television, Film and New Media 122 and 123.

Basic cinematography, including introduction to specialized studio and location equipment; lighting techniques for film and television; introduction to film labs.

TFM 327. Film and Video Editing (3)

One lecture and four hours of activity.

Prerequisites: Television, Film and New Media 122 and 123.

Theory and practice of film and video editing.

TFM 330. Cultural Aspects of Media (3) I

Prerequisites: Communication 200 and Television, Film and New Media 160.

Cultural dimensions of media. Media structures, uses, and effects at national and international levels in a context of humanities and conceptual arts. (Formerly numbered Communication 330.)

TFM 350. Staging and Art for Television and Film (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 324.)

TFM 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.

TFM 364. Film Classics (3) I, II

Prerequisite: Upper division standing.

Viewing and analysis of those American and foreign theatrical films, particularly of the sound era, which represent milestones in the development of the cinema. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

TFM 365. Digital Media (3)

Two lectures and more than three hours of activity.

Prerequisites: Computer background, familiarity with Internet, and upper division standing.

Fundamental conceptual strategies associated with creation of digital media. Visual and cultural impact of digital media. Production and creation strategies. (Formerly numbered Communication 265 and 365.)

TFM 390. Broadcast and Film Performance (3) II

Two lectures and three hours of activity.

Prerequisite: Theatre 110.

Preparation and delivery of materials before the microphone and camera.

TFM 401. Business Aspects of Television and Film Production (3) I, II

Prerequisites: Television, Film and New Media 260 or 261. Usually taken concurrently with Television, Film and New Media 560 or 561. **Proof of completion of prerequisites required:** Copy of transcript.

Financing, preproduction planning, postproduction, and distribution of television and film.

TFM 435. Television Programming (3) I

Prerequisite: Communication 200.

Structure of television programming. Problems such as ratings, advertisers, and scheduling. (Formerly numbered Communication 435.)

TFM 490. Internship (3) I

Prerequisite: Internship contract must be completed prior to registration.

Work with approved agencies off-campus under the combined supervision of agency personnel and instructor. Maximum credit six units.

TFM 496. Experimental Topics (1-3)

Prerequisites: Upper division standing and consent of instructor.

Experimental topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

TFM 499. Special Study (1-3)

Prerequisites: Upper division standing and consent of instructor.

Individual study or project, normally in a research area selected by the student. Maximum credit six units.

UPPER DIVISION COURSES IN TELEVISION, FILM AND NEW MEDIA (Also Acceptable for Advanced Degrees)

TFM 510. Script Writing for Television and Film (3)

Prerequisites: Television, Film and New Media 110, 260 or 261; and satisfaction of the English Placement Test and Writing Competency requirements.

Scripting of dramatic original and adaptation forms, and the documentary.

TFM 522. Advanced Film and Television Cinematography (3) I

Two lectures and three hours of laboratory.

Prerequisites: Television, Film and New Media 260 or 261 and 322.

Proof of completion of prerequisites required: Copy of transcript.

Advanced theory and practice of cinematography for film and television production. Lighting for mood and character; camera movement for story telling; and new techniques in film, digital, and HD formats. Careers in the purely visual aspects of film making.

TFM 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 for television, film and new media majors, and Theatre 440 for theatre majors, and consent of instructor. **Proof of completion of prerequisites required:** Copy of transcript.

Aesthetic, technical, and administrative aspects of design for television and film. Experience in scenic design, construction, decoration, lighting, and special effects.

TFM 551. Production Design for Television and Film (3)

Prerequisites: Television, Film and New Media 350 and credit or concurrent registration in Television, Film and New Media 401.

Theory and analysis of production design concepts for television and film. Determination of stylistic and technical requirements for fictional and nonfictional productions.

TFM 555. New Media Production (3)

Two lectures and three hours of activity.

Prerequisite: Television, Film and New Media 365. Limited to television, film, and new media majors.

Development of audio visual products in new media formats. Multi-media laboratory to be arranged. (Formerly numbered Communication 555.)

TFM 560. Advanced Film (3)

Two lectures and more than three hours of activity.

Prerequisites: Television, Film and New Media 260, 261, and 510 with grade of B (3.0) or better in each and consent of instructor. **Proof of completion of prerequisites required:** Copy of transcript.

Practicum in direction and production of dramatic and non-dramatic film. Cameras, lighting, design, sound techniques, experience in university sponsored productions. Completion of a short film.

TFM 561. Advanced Television (3)

Two lectures and more than three hours of activity.

Prerequisites: Television, Film and New Media 260, 261, and 510 with grade of B (3.0) or better in each and consent of instructor.

Critical analysis of relationship of form and content in nonfiction production.

TFM 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.

TFM 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.

TFM 569. Advanced Projects in Film and Video (3)

Two lectures and more than three hours of activity.

Prerequisites: Television, Film and New Media 510, and 560 or 561.

Original and creative work demonstrating significant achievement in film and video production. Maximum credit six units.

TFM 596. Selected Topics in Television, Film and New Media (3)

Prerequisite: Twelve units in television, film and new media.

Specialized study of selected topics from the areas of television, film and new media. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of six units of 596 applicable to a bachelor's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

GRADUATE COURSES

Refer to *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: Espin, Huckle, Jones, Kohen, Watson
Chair: Cayleff
Professors: Cayleff, Scott, Zimmerman
Associate Professors: Colwill, Donadey, Mattingly
Assistant Professors: Ghosh, Lara, Roy

Offered by the Department

Master of Arts degree in women's studies.
Major in women's studies.
Minor in women's studies.

The Major

Women's studies explores who women were, who women are, who they might be, and how their lives and human interactions are affected by society's values, traditions, and institutions. SDSU has offered courses in women's studies since 1969 and has one of the strongest academic programs in the nation. Its origins are in the women's movement, and its vision includes a world free of sexual, racial, age, and class distinctions and other inequalities.

Courses are designed to provide students with a coherent, integrated, and academically rigorous education. Content areas include concepts of self and family, theories of sex differences, history, cultural contributions, and the study of society's institutions. The emphasis is on increasing the awareness of objective conditions in women's lives throughout the world, and on developing critical analytical skills.

A degree in women's studies may be used as preparation for a wide range of careers. Professional opportunities exist in political and social agencies working with women and developing public policy on women's issues such as health care, employment, family violence, and education. Women's studies students prepare for careers in such fields as law, journalism, public administration, social services, personnel, and psychology. The skills that women's studies majors develop in critical thinking and analysis are highly valued in many additional occupations and professions today. A women's studies major may also go on to advanced academic work preparing for a career as a women's studies scholar.

Many women's studies majors plan double majors to enhance their career opportunities.

Women's Studies Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 49991)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in women's studies courses can apply to the degree.

Students majoring in women's studies must complete a minor in another field to be approved by the chair or major adviser of the department.

Preparation for the Major. Women's Studies 101 and 102. (6 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or 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. See page 73 in "Graduation Requirements" section for a complete listing of requirements.

Major. A minimum of 27 upper division units to include nine units from Group I; 12 units from Group II; and Women's Studies 536 and 590.

Group I: Women's Studies 310, 320, 325, 331, 340, 341A-341B, 352, 360, 370, 375, 385; Africana Studies 332*, American Indian Studies 303*, Chicana and Chicano Studies 340*, Political Science 336*, Religious Studies 370*.

Group II: Women's Studies 512, 515, 521, 522, 530, 535, 553, 565, 572, 580, 581, 582, 595, 596, 598.

*No more than three units may be applied to the major in women's studies.

Women's Studies Minor

The minor in women's studies consists of a minimum of 18 units in women's studies, of which 12 units must be upper division to include:

Women's Studies 101, 102, and six units selected from Women's Studies 310, 320, 325, 331, 340, 341A-341B, 352, 360, 370, 375, 385; Africana Studies 332*, American Indian Studies 303*, Chicana and Chicano Studies 340*, Political Science 336*, Religious Studies 370*.

Six units selected from Women's Studies 512, 515, 521, 522, 530, 535, 536, 553, 565, 572, 580, 581, 582, 590, 595, 596, 598.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

*No more than three units may be applied to the minor in women's studies.

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)

Refer to *Courses and Curricula* and *University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

WMNST 101. Women: Self, Identity and Society (3) I, II

Interdisciplinary introduction to women's studies thought and scholarship in the social sciences, to include such areas as gender-based language, personality development and self-concept, social evolution, family structures, and economic life.

WMNST 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.

WMNST 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

UPPER DIVISION COURSES (Intended for Undergraduates)

WMNST 310. Women in Cross-Cultural Perspective (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Comparative study of social, economic, political, and ideological aspects of women's position in a global context. Women's status in contemporary, transitional, and pre-industrial societies.

WMNST 320. Socialization of Women (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Impact of formal and informal institutions on female development and gender roles across the life span.

WMNST 325. Psychology of Women (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Theories of the psychological development of women; investigation of biological and cultural factors influencing personality and behavior.

WMNST 331. Women in Asian Societies (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Socio-economic status of women in Asia. Feminism and the status of women in China, India, Japan, Korea, Philippines, and other countries. Feminist movements in Asia and women's status as affected by changing social, economic, and political orders in Asia.

WMNST 340. Women in Modern European History (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Social, cultural, economic, political and ideological aspects of women's history in the modern period. Impact of modernization on roles of women in family and society from the eighteenth to the mid-twentieth centuries in Europe.

WMNST 341A-341B. Women in American History (3-3) I, II

History of American social, cultural, economic, political, and intellectual institutions, focusing on the role and perspective of women. Semester I: From colonization to 1860; Semester II: From 1860 to the present. Satisfies the graduation requirement in American Institutions.

WMNST 352. Women in Literature (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Literature by and about women; appraisals of women's place in various literary genres; historical and contemporary themes; evolution of forms and techniques; relation to other art forms.

WMNST 360. Women's Sexuality and the Body (3)

Prerequisite: Completion of the General Education requirement in Foundations II.C., Humanities required for nonmajors.

Social, cultural, and political aspects of women's sexualities and bodies; relationships among beliefs and practices, and among sexual behaviors and identities in historical context; role of popular culture, scientific, medical, and religious ideas.

WMNST 370. Women, Law, and Policy (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Legal factors affecting women in employment, education, health and welfare, property ownership and criminal justice, including investigation of public policy issues which affect women's lives.

WMNST 375. Sex, Power, and Politics (3) I, II

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Social, economic and political factors which explain women's political status and participation. Topics include institutional structures, leadership and ideology, power and authority, and the women's movement as a political movement.

WMNST 385. Women's Work (3)

Prerequisite: Completion of the General Education requirement in Foundations II.B., Social and Behavioral Sciences required for non-majors.

Conditions and factors affecting women's paid and unpaid work. Marriage, divorce, fertility, and childcare; women's occupations, earnings and education; economics of sex discrimination; government economic policies and women's welfare.

WMNST 400W. Interdisciplinary Writing Practices: Feminist Perspectives (3)

Prerequisite: Satisfies Graduation Writing Assessment Requirements for students who have completed 60 units; completed Writing Proficiency Assessment or Transfer Writing Assessment (taken after June 2002) with a score of 8 or higher (or earned a C or higher in RWS 95, RWS 96, RWS 280, RWS 281, or LING 281 if score on WPA or TWA was 7 or lower); and completed General Education requirements in Composition and Critical Thinking.

Workshop in interdisciplinary writing of academic essays, creative nonfiction, and other genres. Includes study of research methods and feminist critical and theoretical literatures.

WMNST 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

WMNST 499. Special Study (1-3)

Prerequisites: Three upper division units and consent of the department chair and instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

WMNST 512. Latinas in the Americas (3)

Prerequisite: Three upper division units in women's studies.

How social and other factors impact the lives of Latin American women. Theoretical frameworks illuminate their situation. Sociocultural perspectives are offered on Latin American women's life narratives.

WMNST 515. Women: Myth, Ritual, and the Sacred (3)

Prerequisite: Three upper division units in women's studies.

Meanings and functions of myths and rituals in their sacred and secular aspects, emphasizing their impact on women's lives and relationships in differing cultural contexts, past and present.

WMNST 521. Life Cycles of Women (3)

Prerequisite: Three upper division units in women's studies.

Women's developmental processes across the life cycle; their impact on women, men, and the family, including life passages related to adolescence, marriage, motherhood, divorce, widowhood, "second careers," and aging in varying socioeconomic and cultural contexts.

WMNST 522. Women: Madness and Sanity (3)

Prerequisite: Three upper division units in women's studies.

Concepts of mental health and mental illness in narratives as well as clinical approaches to women's lives. Includes Freudian, post-Freudian, and feminist approaches to mental health.

WMNST 530. Women's Movements and Activism (3)

Prerequisite: Three upper division units in women's studies.

Comparative study of women's movements worldwide, including organizations, issues and initiatives. Women's diverse social/political strategies within local, national, and global contexts. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

WMNST 535. Lesbian Lives and Cultures (3)

Historical, cultural, and social exploration of lesbianism. Topics include myths and stereotypes, history and literature, social and political movements, theoretical explanations, and current conditions.

WMNST 536. Gender, Race, and Class (3)

Prerequisite: Three upper division units in women's studies.

Major issues and themes in the history, culture, and contemporary lives of women of color in the U.S. Analysis of theories explaining similarities and differences in opportunities and life choices. Roles within social and political movements.

WMNST 553. Women and the Creative Arts (3)

Prerequisite: Three upper division units in women's studies.

Representations of women in literary, visual, and/or performing arts as well as crafts; artistic contributions of women across cultures; theories of creativity and gender. May be repeated with new content. See *Class Schedule* for specific content. Maximum credit six units.

WMNST 565. Women: Health, Healing, and Medicine (3)

Prerequisite: Three upper division units in women's studies.

Relationship of women to "modern" and "traditional" health care/healing systems in historical and cultural perspective. Representations and practices regarding the politics of women's health and illness.

WMNST 572. Women and Violence (3)

Prerequisite: Three upper division units in women's studies.

Forms of violence against and by women. Processes which shape women's resistance to, and collusion in, social, economic, political, and sexual violence.

WMNST 580. Women, Development and the Global Economy (3)

Prerequisite: Three upper division units in women's studies.

Women's roles as agents and recipients of global economic and political change focusing on women's empowerment, work, health, and the environment. Topics include women's movements worldwide and non-government organizations.

WMNST 581. Women's Experiences of Migration (3)

Prerequisite: Three upper division units in women's studies.

Gender analysis of impact of international migration on women's lives. Identity formation, trauma, language, gender roles, and sexuality in life narratives of immigrant and refugee women. Economic and legal issues affecting immigrant and refugee women.

WMNST 582. Science and Technology in Women's Lives (3)

Prerequisite: Three upper division units in women's studies.

Role of science and technology in women's lives to include historical participation, contemporary opportunities and barriers; public policies; feminist critiques and alternative strategies for thinking about and doing science.

WMNST 590. Feminist Thought (3) I

Prerequisite: Six upper division units in women's studies.

Readings of feminist theory in historical perspective, with attention to contemporary debates in feminist scholarship.

WMNST 595. Seminar in Women's Studies (3) II

Prerequisites: Six upper division units in women's studies and consent of instructor.

Directed research in women's studies. Field of investigation will vary with instructor. Methods of investigation, development of bibliography, presentation of paper based on original research. See *Class Schedule* for specific content.

WMNST 596. Topics in Women's Studies (3)

Prerequisite: Consent of instructor.

Advanced topics in women's studies. See *Class Schedule* for specific content. May be repeated with new content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

WMNST 597. Research Project (3) I, II

Prerequisites: Six upper division units in women's studies and consent of adviser.

Individual research project. May be taken in place of Women's Studies 595, Seminar in Women's Studies.

WMNST 598. Women's Studies Internship (3) Cr/NC II

Prerequisite: Three upper division units in women's studies and consent of instructor.

Application of women's studies theories and scholarship to community service and activism through combination of classroom discussion and field internship. Internship includes 80 hours of work in local public and private agencies dealing primarily with women and girls. Maximum credit six units.

GRADUATE COURSES

Refer to *Bulletin of the Graduate Division*.

Special Programs and Services

Academic Computing

The SDSU computing environment provides access to scores of software products including World Wide Web browsers, programming languages, wordprocessing, spreadsheets, presentation packages, relational databases, statistical software, and large databases such as IMF and CRSP. The university provides access to a Sun F4800 Server (running SOLARIS). The Sun F4800 Server is available to the university community via the campus network which also links students to specialty computing centers located at other California State Universities and the San Diego Super Computer Center.

The university has over 2,000 microcomputers located in 80 departmental/college computer laboratories. There are also three large computer labs open to all students; all machines in those labs are connected to the Internet. The open computer labs are the Love Library Student Computer Center located in Love Library 200 which has PCs, Macintoshes, and laser printing as well as the Social Science Research Lab located in PSFA 140 which has PCs, Macintoshes, and laser printing.

The Baseline Access, Training and Support (BATS) program offers free hands-on computer training to the SDSU community. Workshops cover the Microsoft Office Suite (Word, Excel, PowerPoint, and Access), Adobe Photoshop, Web Page Creation, Introduction to Computers and the Windows and Macintosh Operating Systems, and more.

Student computing and e-mail accounts are available through a student account system. This system allows enrolled SDSU students to create their own accounts via the Internet from a computer or terminal on campus or via the Web from off campus.

Web site is available at <http://www.sdsu.edu>.

Alumni Association

The SDSU Alumni Association is dedicated to connecting SDSU alumni to the university and each other. Membership in the San Diego State University Alumni Association is open to those individuals who have an abiding interest in and commitment to the growth and future of SDSU and the community it serves.

The Alumni Association is a dynamic, exciting organization whose purpose is to serve and support the university and its graduates. It offers a number of programs and services designed to meet the variety of needs and interests of its alumni, including library privileges, reduced admission to many cultural activities and sporting events, discounts on purchases at the Aztec Store, access to SDSU's Career Services for a nominal fee, and a subscription to SDSU Magazine, a monthly electronic newsletter, and Aztec update: publications for alumni and friends of the university.

In addition, the Alumni Association sponsors The Montys (annual awards event honoring alumni of the university), provides scholarships for students, organizes Homecoming, provides input regarding university programs and policies, and provides excellent networking opportunities through a myriad of events.

For further information, a Web site is available at <http://www.sdsualumni.org> or phone the Alumni Office at 619-594-2586.

Associated Students of San Diego State University

The Associated Students of San Diego State University (A.S.) is a unique, full-service organization. The A.S. provides a variety of programs, services and activities for SDSU students as well as faculty, staff, alumni, and the public. Directed by elected student executives,

the Associated Students offers programs ranging from recreation to entertainment and child care. An independent, not-for-profit corporation, it is funded by the student activities fee and revenues collected from programs and services. Associated Students can be reached by calling 619-594-6555, or on the Web site at <http://as.sdsu.edu>.

Student Government. The Associated Students sponsors extensive student leadership programs designed to encourage active student participation in the decision-making policies of the university. The A.S. Council is the voice of the SDSU student body. Composed of one college representative per 1500 students, five executive officers, and representatives from some student organizations, the Council is responsible for the A.S. \$15 million annual budget and for formulating organizational and university-wide policy. Elections held each year allow for the selection of individuals to fill one-year terms on the Council. Meetings of the A.S. Council are weekly, open sessions.

Other student government activities include monitoring academic policies, programs, and services; appointments to educational or campus-related committees; lobbying to provide student input to city, county, state and federal governments; and representing SDSU's interests with the California State Student Association. Call 619-594-6555 for more details about student government programs or visit <http://www.as.sdsu.edu/govt>.

Aztec Center. The hub of student activity at SDSU, Aztec Center is the headquarters of the Associated Students and its staff. Aztec Center features study spaces, meeting and conference rooms, the Campus Information Center, the Ticket Office and businesses that include STA Travel, Postal Annex, and USE Credit Union. Aztec Center also houses the Aztec Center Food Court, a popular campus eatery and meeting place that offers a variety of food selections, and the Aztec Cafe featuring Starbucks Coffee and free live entertainment. The Aztec Center Satellite Cyber Lounge, located in West Commons, offers free computer use with Internet connection. For more information, call 619-594-6551 or visit <http://www.azteccenter.sdsu.edu>.

Cox Arena. Home to Aztec Men's and Women's Basketball, Cox Arena is San Diego's premier venue for everything from concerts to sporting events, family shows, conventions, conference, and corporate events. Facilities and Event Management has awarded Cox Arena the prestigious Prime Site Award for four consecutive years.

This state-of-the-art, 12,000 seat facility is complete with award winning acoustics, VIP lounges, and star dressing rooms, as well as a distinctive outdoor concourse area. On site is a full-service ticket office and TicketMaster location for events throughout California. The Cox Arena is adjacent to the Aztec Recreation Center in the heart of the SDSU campus with nearby parking for 4,000 vehicles. Call 619-594-0234 or visit <http://www.cox-arena.com>.

Recreation Programs. Associated Students manages SDSU's recreation and fitness programs. Offered at affordable prices, they are open to the public, as well as students, faculty, staff, and alumni.

Aztec Recreation Center (ARC). The ARC features four full-size gyms; a 30-foot climbing wall; 21,000 square feet of cardio, aerobic, dance, and weight rooms; a TV lounge area; plus locker rooms with full towel service and saunas. Membership includes unlimited access to recreation facilities, group exercise, cardio and weight rooms, racquetball, wallyball, intramural sports, and bowling. Additional programming is offered at minimal fees with a wide variety of recreation classes such as the arts, dance and music, food and beverage, health and fitness, martial arts, horseback riding, tennis and rock climbing. Economical membership fees start at only \$15.00 per month for students. The facility is open 24 hours per day. Call 619-594-PLAY for complete schedules and membership information or visit <http://www.arc.sdsu.edu>.

Aztec Center Bowling and Games. This facility includes 12 bowling lanes, over 40 video games, billiards, table tennis, and leagues. Also available for parties. Call 619-594-6561 or visit <http://www.arc.sdsu.edu>.

Mission Bay Aquatic Center. The world's largest instructional waterfront facility, located at 1001 Santa Clara Point in Mission Bay Park, offers credit classes and recreational opportunities in surfing, sailing, windsurfing, kiteboarding, waterskiing, rowing, wakeboarding, and more. Equipment rentals and facilities for group meetings or barbecues are also available. Bus transportation from SDSU available on Transit Routes 27 and 81. Call 858-488-1000. See MBAC online at <http://www.missionbayaquaticcenter.com>.

Aztec Adventures. Located in the Aztec Recreation Center, this outdoor adventure program offers camping, backpacking, rock climbing, canoeing, sea kayaking, and skiing outings. Also features excursions such as Baja whale watching, surfing safaris, and nature awareness weekends. Trips are always led by experienced guides. Most outings include transportation, food, group equipment, and all permits or fees. Call 619-594-6222 for more information and trip schedules or visit <http://www.aztecadventures.sdsu.edu>.

Recreational Sports. An extension of the Aztec Recreation Center (ARC), Recreational Sports offers free racquetball and wallyball to ARC members. The golf driving range is available for minimal fees. Non-ARC members can participate in all programs at slightly higher prices. Recreational Sports is located at SDSU on the west end of Peterson Gym. For more information, call 619-594-6424 or visit <http://www.arc.sdsu.edu>.

Sports Clubs. Sports Clubs are organized, funded, and managed by SDSU students. The collective efforts and organization of the students comprising each team determine each club's success. Sports Clubs practice weekly, from two to five times per week, in preparation for organized intercollegiate competitions at local, state, regional, and national levels. Both new and experienced athletes are actively recruited. In fact, many athletes are new to their sports. Sport Club teams are an excellent setting for the development of athletic skills, student leadership skills, and social opportunities. Groups interested in starting a new club or want information on an existing club should call the ARC at 619-594-0200 or visit <http://www.arc.sdsu.edu>.

Child Care Programs. Associated Students provides child care and preschool learning programs through the SDSU Children's Center. Programs range from part-time to full-time care for children ages infant to five years, with all programming provided by expertly trained teachers and staff members. For more information, call 619-594-7941 or visit <http://www.sdsu.edu/as/child>.

Open Air Theater and Entertainment. Located amidst the original landscaping of San Diego State University, this historic venue is ideal for watching your favorite musical group while sitting under the stars. Originally opened in 1941, this 4,800 seat amphitheatre has played host to sold out concerts, lectures, and symphony performances. Generations of guest have enjoyed this theatre's natural acoustics which complement the sound of all music genres. On site are full-service concession stands and a two-level hospitality suite, equipped with open balconies and dressing rooms. For event information, call the Aztec Center Ticket Office at 619-594-6947 or visit <http://www.cox-arena.com>.

Athletics

San Diego State University sponsors a broad array of varsity intercollegiate athletics for women and men. SDSU's commitment to gender equity in athletics includes 12 sports for women (basketball, crew, cross country, golf, soccer, softball, swimming, tennis, indoor/outdoor track and field, volleyball, and water polo) and six for men (baseball, basketball, football, golf, soccer, and tennis). As a National Collegiate

Athletic Association (NCAA) Division I program, Aztec athletic teams compete at the highest level of intercollegiate competition. All of the teams except soccer compete in the 8-member Mountain West Conference. Men's soccer is a member of the Mountain Pacific Sports Federation.

Athletics serves a number of important roles on campus and within the larger San Diego community. In addition to encouraging student-athletes to expand their competitive capabilities to the fullest, San Diego State teams provide a catalyst which helps generate pride and a shared *esprit de corps* among students, faculty, staff, and alumni. This also helps link these groups from generation to generation. Similarly, with nearly a hundred-thousand alumni and former students and tens of thousands of supporters in the county with no other direct connection to the university, Aztec teams frequently carry the aspirations of San Diego in the forum of NCAA Division I Athletics. On-campus athletic events attract both students and members of the community to campus and this reinforces many mutually beneficial town-gown relationships.

Student Athlete Support Services Aztec Athletics Center, Room 3029, 619-594-5891

Involvement with intercollegiate athletics on campus presents many challenges for students. This office provides guidance and assistance for these student-athletes in the areas of admission, registration, new student orientation, counseling, study hall, mentoring, tutoring, and academic advising. The office also serves as a liaison between faculty and the Athletic Department. This individualized program is designed to create an academic support network to ensure all student-athletes comply with university requirements while working toward completion of a degree.

Aztec Shops, Ltd.

(Campus Stores, Dining Services)
<http://www.aztecshops.com>

Aztec Shops, Ltd., founded in 1932, is a not-for-profit corporation that functions primarily as an auxiliary of San Diego State University. The corporation provides a diverse portfolio of commercial services including operation of the bookstore and dining services on campus. Aztec Shops also operates selected other enterprises at San Diego State and at other colleges and universities. The corporation employs close to 200 full-time professionals and up to 800 part-time employees – mainly students – during busiest times. Our corporate offices are located on the campus of San Diego State University.

SDSU Bookstore. The flagship of Aztec Shops' retail operations, the SDSU Bookstore is one of the largest campus bookstores in the country as measured by sales. The 25,000-square-foot facility – located in the heart of campus – carries every text (required and optional) for every class taught at SDSU. The facility's "Bookstore within a Bookstore" offers an impressive selection of general-interest titles including volumes for children. The store's well-staffed special order desk is available to secure even the most hard-to-find titles. Aztec Shops is the exclusive licensee for the San Diego State University logo and related images. The SDSU Bookstore features the most extensive selection of SDSU-imprinted clothing and gifts available. The store also houses a full-service computer hardware and software department that offers significant academic discounts on the most popular systems from Sony, Toshiba, and Apple as well as the most current versions of the nation's most popular software. A broad selection of school supplies, cards, gifts and graduation regalia round out the store's offerings. For more information, call 619-594-7525.

Aztec Dining Services. Aztec Shops is responsible for all restaurants and other food service outlets on the SDSU campus. The corporation operates SDSU's Meal Plan Program which allows residence hall students to choose interesting and healthy meals from virtually any restaurant on campus. In addition to residence hall dining programs, we developed and operate our own branded restaurants such as Durango's and Vinnie's Gourmet Italian Deli in East Commons. We also contract with other restaurant operators such as McDonald's and Panda Express to provide quality food and service on campus. In

addition to the varied restaurant options, Aztec Shops operates five Aztec Market convenience stores on campus, including a 3,000-square-foot store in East Commons. All stores carry a wide variety of grab-and-go beverages, sandwiches and salads, as well as traditional convenience store items. Aztec Dining Services' Catering Department is the recognized caterer for all events on the SDSU campus. For more information, call 619-594-7640.

Other operations. Other Aztec Shops operations include:

Art Etc. – A specialty store (located in the Art Building at SDSU) which features art supplies for both amateur and professional artists.

Aztec Store – Located in San Diego's Fashion Valley Mall, the store offers Aztec team apparel and SDSU imprinted gifts.

The Campus Store – Aztec Shops operates The Campus Store, the bookstore at the SDSU branch campus in Calexico, CA.

Elderhostel – Aztec Shops runs a successful Elderhostel program that brings senior citizens from around the country to San Diego for specialized educational enrichment programs.

Montezuma Publishing – As part of its commitment to providing course materials for every class, Aztec Shops operates Montezuma Publishing which prints customized course materials and readers, securing copyright permissions when necessary.

University Towers – In November 2000, Aztec Shops purchased the well-known El Conquistador residence hall near the SDSU campus. Recently renamed University Towers, the facility is home to more than 500 students during the academic year.

Concessions – Aztec Shops operates the concession stands at Cox Arena, the Open Air Theater and Tony Gwynn Stadium.

The Center for Bio/Pharmaceutical and Biodevice Development

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 was the first degree program developed and offered by the center. This program addresses overarching legal, ethical, and regulatory requirements that impact the development, manufacturing, and commercialization of biomedical products.

A second, newer Master of Science in Biomedical Quality Systems degree program is being offered by the center. With a focus on the quality aspects of development, manufacturing, and commercialization of biomedical products, it strongly complements the regulatory affairs program and the two programs share some elective courses. Both of these programs also offer a certificate to those students interested in obtaining a foundational understanding, through successfully completing four basic courses.

Internet-based, distance teaching technologies are used to make the center's education and training programs more widely available to individuals outside of the San Diego area, and this also facilitates the training of industry professionals who often find themselves traveling worldwide on company business. The center is also engaged with regional economic development and workforce development issues

and the future acquisition of new training and research facilities. The center interfaces extensively with the California State University Program for Education and Research in Biotechnology (CSUPERB).

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 university system; to foster competitiveness both on the state and national levels; to facilitate training of a sufficient number of biotechnology technicians and scientists; to catalyze technology transfer and enhance intellectual property protection; and to facilitate the acquisition and long-term maintenance of state-of-the-art biotechnology resource facilities across the university system, such as the SDSU Microchemical Core Facility, the SDSU Macromolecular Structural Analysis Resource Center, the CSU Stanislaus Confocal Microscope Core Facility, the CSU Fullerton W. M. Keck Foundation Center for Molecular Structure, and the CSU Long Beach Facility for Elemental Micro-Chemical Analysis (FEMCA). It facilitates interdisciplinary cooperative activities among the Colleges of Sciences and Engineering, the key departments on all campuses, as well as among faculty and from a number of allied academic and research units such as bioengineering, agricultural biotechnology, environmental and natural resources, molecular ecology, and marine biotechnology. It also operates a grants program of over \$2 million annually for programmatic development, for joint corporate research ventures with industry, and faculty seed program for student research. It also serves as the official liaison between the CSU and industry, government, and the public arena in biotechnological matters. CSUPERB operates through an Executive Director, two Associate Directors, a Director of Operations and Workforce Development, a Strategic Planning Council composed of five corporate CEO's, five CSU deans of sciences, and ten faculty from the system. CSUPERB is overseen by the Presidents' Commission composed of five CSU campus presidents from San Diego State University, Humboldt State University, CSU East Bay, CSU Los Angeles, and Cal Poly, San Luis Obispo. Faculty input into the organization and its multiple activities is through a 100 member Biotechnology Faculty Consensus Group.

Center for Community-Based Service Learning (CCBSL)

The mission of the Center for Community-Based Service Learning is to enhance learning and civic responsibility through community engagement. The center serves faculty, students, and community organizations by providing a link to integrate community service programs with classwork, giving students unparalleled insight into community needs. The CCBSL is a supportive and collaborative force for the campus and the community to come together for shared endeavors and goals.

Community-based learning, also known as service learning is a form of experiential education combined with the ethic of giving back to the community. The goals of the CCBSL include assisting and supporting faculty as they make community service part of their classwork, and helping individual students and student organizations identify places where they can directly address community needs.

The CCBSL serves as a central location on campus for students, their clubs, faculty and staff to plan and implement community projects. To aid in those efforts, the CCBSL has developed several resources and services to include:

A listing of faculty and courses involved in community-based learning;

A listing of community activities meeting student volunteer or service needs;

A bank of community projects suitable for faculty to include in their courses;

A listing of grants related to community-based and experiential learning;

A resource library for research, assessment, grant writing, course design, focusing upon experiential and community-based learning;

A place for faculty and staff to meet to discuss service-learning curriculum;

The CCBSL is located in Career Services. For more information, contact the CCBSL at 619-594-0546 or <http://servicelearning.sdsu.edu>.

June Burnett Institute for Children, Youth, and Families

6310 Alvarado Court, San Diego, CA 92120

Telephone: 619-594-4756

FAX: 619-287-6756

The June Burnett Institute was created in 1985 at the San Diego State University Research Foundation from a \$1.5 million bequest from the estate of June Estelle Burnett. The mission of the institute is to develop innovative programs for children, youth, and families that blend service, training, and research. It is dedicated to developing the potential of all children, youth, and parents in a manner that is sensitive and responsive to cultural, social, and economic differences and needs. The institute fosters cooperation and collaboration through interdisciplinary/interprofessional approaches that promote the well-being of children, youth, and families through prevention, intervention, and volunteer-based services. An advisory board composed of SDSU faculty and community members directs the activities of the institute in cooperation with its director and a staff of approximately 100. The institute has two major program divisions that include the San Diego Choice Program and the California PARENT Center.

San Diego Choice Program – The institute, in cooperation with the San Diego Juvenile Court and the County of San Diego, coordinates the San Diego Choice Program which serves approximately 800 court-involved delinquent youth annually that are referred by the County Probation Department and the County Health and Human Services Agency. The San Diego Choice Program is modeled after the Choice Program developed by the Shriver Center at the University of Maryland. The program currently maintains offices that serve most areas of San Diego County emphasizing intensive case contact services and services for children reentering foster care. The San Diego Choice Program also provides parenting workshops focusing on raising high-risk teens.

The California PARENT Center serves as a hub for strong outreach to parents through contacts with parent groups, parent centers, parent advocates, and educators across the state. The center's "Cyber Center" provides easily accessible resources through an extensive Web site at <http://parent.sdsu.edu> and toll free Parent Warm Line 619-594-3349; in other areas of California 877-9PARENT. Staffed in seven languages daily from Noon to 2:00 p.m., the Warm Line makes available a group of multilingual parents who can provide specific "how-to's" for parents or educators who wish to build effective parent programs at the preschool, elementary, middle school or high school levels. The center currently combines the efforts of skilled service staff, community-based agencies, and volunteers to promote three "best practice" parent training models: Families and Schools Together (FAST), the Home/School Partnership, and the HIPPY program (Home Instruction for Parents of Preschool Youngsters). A statewide training program for parent advocates is being developed through an agreement with three collaborative, direct service parent programs. It is being expanded to new sites through subcontracts with the Homey's Youth Foundation, Chicano Federation, the Parent Teacher Association, Union of Pan Asian Communities, San Diego Urban League, Parent Institute for Quality Education, San Diego

Unified School District, the San Diego Unified PTA council, and the Alliance for Children and Families.

Support for SDSU Faculty – The Burnett Institute has sponsored a range of support programs for SDSU faculty including: the Burnett Institute Mini-Grant Program, 1986-1992, and the June Burnett Institute Faculty Fellows Program, 1997-2002. The institute board is now reviewing these prior programs to identify innovative new ways to support faculty.

Children's Center

The SDSU Children's Center, a quality service provided by Associated Students, provides an enriched learning program for infants, toddlers, and preschool children of students, faculty, and staff while their parents are in class, studying, and/or at work. The academic school year program is designed to meet the needs of students and is only open the days school is in session for the fall and spring semesters. The year round program is designed to meet the needs of the working parents and is open year round. We observe all university holidays.

A grant from the State Department of Education, Child Development Division, pays all or partial child care fees for qualifying students' children. Tuition for all others is billed monthly and is determined by the child's classroom/age and contracted schedule.

The program is designed so that a variety of activities are offered that will foster the child's social, emotional, intellectual, and physical development, and help the child view himself/herself and the environment positively.

The classrooms are staffed by professional and student employees, volunteers, and child and family development majors. Parent participation is strongly encouraged and appreciated. Parents have the opportunity to serve on the Children's Center Board, which is composed of parents and other campus representatives.

Call 619-594-7941 or go to <http://www.sdsu.edu/as/child> for more information.

Communications Clinic for Speech, Language, Hearing Disorders and Deafness

Administered by the School of Speech, Language, and Hearing Sciences, the clinic provides assessment and remediation services for SDSU students, staff, faculty, and the community. Comprehensive diagnostic and treatment programs are available for children and adults in the areas of delayed speech/language development, voice, fluency or articulation disorders, aphasia, cleft palate, cerebral palsy, loss of communication function, augmentative communication needs, hearing loss and deafness. Also provided are services for bilingual/multicultural clients and speakers of English as a second language. Audiologic services provided by the clinic include hearing assessment, hearing aid evaluation and fitting, assistive listening device evaluations, earmolds, ear protectors, hearing conservation and speech reading/aural rehabilitation therapy. In addition, the clinic offers opportunities for research, consultation, supervised field internships, continuing education, and other service activities. The clinic is located at 6330 Alvarado Court, Suite 100, San Diego, CA 92120-4917, 619-594-6477.

Developmental Writing Program

The Developmental Writing program, in the Department of Rhetoric and Writing Studies, offers assistance to all students at any university level, including bilingual and international students, who wish to improve reading and writing skills. The program's services are available on an enrollment basis only.

In addition, the program assists students in completing the university's writing competency requirement. The university requires students to demonstrate writing 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 course-

work in the Department of Rhetoric and Writing Studies during their first semester at SDSU. As of fall 2001, incoming freshmen have three consecutive academic semesters in which to complete developmental writing requirements.

General Mathematics Studies

The General Mathematics Studies program offers assistance to all students at any university level who wish to improve their mathematics skills. These services, which are available on an enrollment basis only, are designed to assist students in completing the CSU ELM and SDSU Mathematics Placement, Part IA requirements. The university requires all students to demonstrate mathematics proficiency consistent with its established standards. In particular, students who fail the ELM must enroll in the appropriate General Mathematics Studies course in their first semester at SDSU and continue until they have satisfied this requirement; students have one year only to complete this requirement.

Honors Council

The Honors Council was formed in 1991. It comprises representatives of the Honors Program and of Golden Key, Mortar Board, Phi Beta Kappa, Phi Eta Sigma, and Phi Kappa Phi interdisciplinary honor societies.

The purposes of the Honors Council are:

- To act as an advisory and coordinating resource center for the interdisciplinary honor societies on campus;
- To promote the specific interests of the above listed honor societies;
- To promote the common concerns of all honor societies and honors programs at San Diego State University;
- To cooperate with the faculty and administrative officers in developing and maintaining high academic standards;
- To recognize students and faculty for their achievements in scholarship, leadership, and service;
- To recognize graduating seniors who are active members of all five university-wide honor societies.

For meetings and events and to house honors insignia and regalia, the Honors Council has the Henry L. Janssen Honors Council Room in Library and Information Access, Love Library, Room 428D.

Honor Societies

An academic honor society is a campus organization that values and reinforces the high academic standards of the university and selects its members, at least in part, on the basis of superior academic performance. Honor societies have the use of the Darlene Gould Davies Honors Study, located in Library and Information Access, Love Library, Room 428A.

Multidisciplinary Academic Honor Societies

Golden Key is a national and worldwide undergraduate honor society whose purpose is to recognize and encourage scholastic achievement and excellence in all undergraduate fields of study, to unite with collegiate faculties and administrators in developing and maintaining high standards of education, to provide economic assistance to outstanding members by means of annual scholarships, and to promote scholastic achievement and altruistic conduct through voluntary service. Golden Key International Honor Society has over 300 active chapters. It also publishes an annual magazine and a regular newsletter. San Diego State University's chapter was chartered in 1984.

Each fall, the chapter invites to membership juniors and seniors in the upper 15 percent of their classes who have completed their last 24 units at SDSU. Elected student officers set all agendas and direct activities.

The faculty adviser is Dr. Edith J. Benkov, Department of European Studies.

Mortar Board, a national honor society for college seniors, was founded in 1918. The society recognizes in its membership the qualities of superior scholastic ability, outstanding and continual leadership, and dedicated service to the university community. The SDSU chapter of Mortar Board had its beginning in 1932 as Cap and Gown. In 1965 the local honorary was recognized as a member of the national organization. Nationwide there are over 200 active chapters with a membership in excess of 200,000. At the 2003 National Conference, the SDSU Chapter was recognized as the most outstanding chapter in the United States.

Mortar Board membership means active involvement to benefit the campus and community. Current projects include support of philanthropy projects related to literacy, awarding of scholarships, presentation of annual emeritus faculty and staff Outstanding Service Awards to recognize individuals whose work contributed significantly to this university; an annual faculty/staff appreciation dinner; support of activities and projects of the San Diego Alumni Chapter; and the sale of the Mortar Board Daily Planner and Calendar of Events – a daily planner and calendar of events for the university community.

To be considered for election to membership, students must have senior standing for the fall semester with an overall GPA of 3.00 and must have participated and excelled in the areas of scholarship, service, and leadership. All prospective members must be making satisfactory progress toward the degree. Admission to Mortar Board is highly competitive and is restricted to no more than 40 students per year.

Advisers for the honor society are Dr. Ronald R. Young, Associate Professor Emeritus of Spanish and Kathleen Ross, former Scholarship Director. The administrative liaison is Dr. Jane K. Smith, Assistant Vice President for Academic Services (AD-220). Information is available at <http://mortarboard.sdsu.edu/>.

Phi Beta Kappa, founded in 1776, is the oldest national honor society in America. Its 270 chapters recognize academic excellence in the liberal arts and sciences. In 1974, Nu Chapter of California was established at SDSU, the first CSU campus to be so honored. Juniors and seniors considered for membership each Spring are usually enrolled in the College of Arts and Letters or the College of Sciences and are or will be eligible for the bachelor of arts or bachelor of science degree. Juniors must have a GPA of at least 3.75, and seniors must have a GPA of at least 3.50. Juniors and seniors must have a GPA of at least 3.50 in liberal arts and sciences courses. These GPAs must be maintained with minimal use of Cr/NC. All candidates must have demonstrated university proficiency in mathematics and in a foreign language at the third-semester level. In addition, juniors must have completed at least 75 units of liberal arts and sciences courses, and seniors must have completed at least 45 liberal arts and sciences units at SDSU and must have demonstrated university proficiency in written English by coursework or satisfaction of the Graduation Writing Assessment Requirement. Finally, candidates must show significant depth and breadth of scholarly interests by the number, variety, and rigor of upper division courses taken outside the major. Election, after careful examination of the student's record, is by vote of the chapter members.

Chapter activities include the annual initiation, at which several scholarships are awarded; the annual Phi Beta Kappa Lecture honoring an outstanding faculty member; lectures by visiting scholars; participation on the University Honors Council; supportive interaction with local schools; and cooperation with Epsilon Association, San Diego's alumni chapter of Phi Beta Kappa. Chapter president is Dr. Ronald J. Angione, Department of Astronomy. For general information consult <http://www.pbk.org>.

Phi Eta Sigma is a national freshman honor society. The national chapter was formed in 1923; the local chapter was formed in 1955.

Phi Eta Sigma was established to encourage and reward high scholastic achievement among freshmen in institutions of higher education. There are over 300 chapters throughout the United States and more than 500,000 members.

All freshmen, both men and women, who have a cumulative grade point average of at least 3.50 on a 4.0 scale with at least 12 units at the

close of either semester during their freshman year are eligible to join. Students who were eligible but missed induction after their freshman year may join at any time thereafter.

Among its activities are induction ceremonies, community service involvement, social events, and national conventions.

The adviser for the honor society is Dr. Jung Choi, Director of University Honors Program. For more information, call 619-594-2872.

Phi Kappa Phi was founded in 1897 to promote the pursuit of excellence in all fields of higher education and to recognize outstanding achievement by students, faculty, and others through election to membership and through various awards for distinguished achievement. Activities of the organization include the awarding of two scholarships annually for graduate education of outstanding students, the recognition of outstanding faculty and students through nominations for national awards and scholarships, spring initiation, and sponsorship of the SDSU Emeritus Lecture Series. The national organization publishes a newsletter and a scholarly journal and sponsors the National Scholar and National Artist awards and the Graduate Fellowship program. The society offers literacy grants, study abroad grants, and research grants for scholarly work. Nationally there are almost 300 active chapters. San Diego State University's chapter was chartered in 1965.

Membership is based on, but not limited to, the following criteria: Juniors must have completed a minimum of 75 units and be in the top 7-1/2 percent of their class at SDSU; seniors must have completed a minimum of 90 units and be in the top 10 percent of their class at SDSU; graduate students must have completed a minimum of 15 units of graduate work at SDSU and be in the top 10 percent of their class. All prospective members must have made satisfactory progress toward the degree.

President of the society is Dr. Janis F. Andersen, Interim Dean of the Graduate Division.

Discipline-Based Honor Societies

The national honor societies at San Diego State University which accord recognition to students who demonstrate superior scholarship and leadership in specific academic fields include:

- Alpha Epsilon Delta (Pre-Medical)
- Alpha Kappa Delta (Sociology)
- Beta Alpha Psi (Accountancy)
- Beta Gamma Sigma (Business)
- Chi Epsilon (Civil Engineering)
- Eta Sigma Phi (Classics)
- Honors Council (General)
- Kappa Delta Pi (Education)
- Lambda Pi Eta (Communication)
- Omicron Delta Epsilon (Economics)
- Phi Alpha Theta (History)
- Phi Beta Delta (International Scholars)
- Phi Mu Alpha Sinfonia (Music)
- Pi Delta Phi (French)
- Pi Kappa Lambda (Music)
- Pi Sigma Alpha (Political Science)
- Pi Tau Sigma (Mechanical Engineering)
- Psi Chi (Psychology)
- Sigma Delta Pi (Spanish)
- Sigma Gamma Tau (Aerospace Engineering)
- Sigma Tau Delta (English)
- Sigma Theta Tau (Nursing)
- Tau Beta Pi (Engineering)

Instructional Technology Services

Instructional Technology Services (ITS) provides support to faculty in the design, selection, production, and distribution of instructional technology. Service and support are provided in three key areas: Instructional Resources and Technology Systems, Instructional Development, and Multimedia Production.

Instructional Resources provides support in the selection, use, and distribution of instructional materials and equipment. Services include consultation on selection and use of media and equipment for instruction; checkout of media and equipment for classroom use; acquisition of new videotapes, DVD's and CD-ROM's for instructional use; on-line access to an instructional media collection containing more than 8,000 titles; and maintenance and repair of audiovisual equipment. **Technology Systems** provides support in the design, installation, operation, and maintenance of instructional systems in classrooms. Services include the design, installation, and maintenance of Smart Classroom systems and basic audiovisual systems; operation of the campus closed-circuit television system; operation of videoconferencing systems for instructional and administrative use; satellite downlink and off-air recording services; and operation of a presentation room for high-quality video and data projection. The ITS Experimental Classroom is designed to support faculty who wish to experiment with teaching strategies involving the use of new and emerging instructional technologies. It is a location on campus for conducting research aimed at measuring and documenting the use of technological tools to improve teaching and learning.

The **Instructional Development** program offers professional assistance in instructional design, course design, teaching techniques, and assessment. Services include: assistance in development of instructional materials; assessing and selecting instructional methods; facilitating course design; workshops on teaching skills and techniques; and a facility for faculty to produce their own instructional media and to learn about new technologies. The B.A.T.S. initiative (Baseline Access, Training and Support) provides instruction to faculty, staff, and students in the use of computer hardware and software through a full schedule of workshops held in hands-on computer labs and through Help Desks staffed by instructional computing consultants. In addition, courseware development specialists are available to assist faculty with the Blackboard web-based course delivery system.

Multimedia Production assists in the design and production of instructional and research materials, as well as other university-related materials. Services include development and production of instructional videotapes; graphic and photographic support of instruction, research and publication; and assistance in development of multimedia materials including CD-ROM's, DVD's, and instructional Web sites.

Office of International Programs

In recognition of the rapidly expanding number and importance of international activities on the San Diego State University campus, the Office of International Programs has specific responsibility for coordinating and facilitating the development of the diverse international programs and activities of the university. The Office of International Programs is the primary contact for international programs and represents the university on international matters to external agencies and institutions. The Office of International Programs coordinates all international faculty and student programs and serves as an information clearinghouse regarding international projects, funding opportunities, and academic programs and services that have an international component.

International Faculty Exchanges

In order to enhance the international character of instruction and research, San Diego State University has developed a continuing program of faculty exchanges with partner universities worldwide. Currently, the university has formal arrangements to exchange faculty periodically with universities across the globe. Over 100 international scholars visit the San Diego State University campus each year to pursue scholarly research, participate in academic or professional programs, and share their international perspectives with the university community.

International Student Exchanges

In addition to the CSU International Programs, San Diego State University also sponsors semester abroad, dual degree programs, and travel-study programs. SDSU has also entered into special institutional arrangements with selected universities that provide both undergraduate and graduate students the opportunity for study, research, and internships abroad. Currently San Diego State University has student agreements with many international partners. SDSU's International Student Center assists students who wish to participate in an exchange or other SDSU program. For detailed information, contact the International Student Center at 619-594-1982.

For more information about the university's international programs, contact the Office of International Programs, 619-594-1354. E-mail: oiop@mail.sdsu.edu or visit our Web site at <http://oiop.sdsu.edu>.

Library and Information Access

Administration

Dean, Library and Information Access: Connie Vinita Dowell

Associate Dean: 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, Goyné, Granrud, Harkanyi, Harris, Hoover, Johns, Kinsey, Lamb, Leerhoff, Martinez, McAmis, Murdock, Neyndorff, Pålsson, Pease, Posner, Rogers, Sandelin, Shira, Sonntag, Szabo, Wilson

Librarians: Dintrone, Fikes, Harley, McPhail, Muroi, Perkins, Puerto, Turhollow, White

Associate Librarians: Baber, Carande, Favretto, Hall, Hudson, Rhodes, Savage, Stover, Su, Sullivan, Tumlin

Senior Assistant Librarians: Martinez, Neal, Payne, Salem

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. Over 2.7 million visitors use the library annually.

The Library's Web site at <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 1,448,069 monographs and bound periodicals; 652,503 government documents; 4,395,661 microforms; 138,976 maps; 11,436 sound recordings; and 5,877 linear feet of archival papers. The Library receives 4,569 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 or doctorate degree.

Nurse Corps. Limited scholarships are available for junior and senior nursing students with top scholastic performance.

Students are encouraged to seek information and plan ahead if they are interested in adding any of these programs to their career options. More information on all programs is available by calling or writing to the Officer Programs Office, NRD San Diego, 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, 81, 115, 936, and 955. 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 <http://www.sdcommute.com> and <http://www.ridelink.org>.

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 Research Foundation

San Diego State University Research Foundation was incorporated in 1943 as an auxiliary organization authorized by the Education Code of the State of California. It is a nonprofit corporation, self-financed, and chartered to augment the educational, research, and community services objectives of the university. San Diego State University Research Foundation serves the university in the following major areas:

- Working with faculty and staff to develop and administer grants and contracts and community-service programs;
- Developing and administering major centers, institutes, community partnerships, and programs;
- Administering a technology transfer program;
- Administering student scholarship, loan funds, and financially managing and investing gifts, trusts and endowments, most on behalf of the university's philanthropic foundation;
- Acquiring, developing, and managing real property to support sponsored programs;
- Assisting in the management functions of KPBS radio and television stations;
- Providing resources to develop new and support existing SDSU faculty sponsored projects, including funds for faculty grants-in-aid, research faculty recruitment, joint doctoral programs, research equipment, and other costs related to advancing the university's research agenda.

San Diego State University Research Foundation, as a nonprofit corporation, is governed by a board of directors in accordance with its articles of incorporation and bylaws. The principal function of the directors is to establish policies and guide the corporation in achieving its objectives.

San Diego State University Press

As the scholarly press for San Diego State University, San Diego State University Press publishes works of original research, as well as other meritorious academic and creative works that will further the intellectual mission of the university. The current focus of the Press is in these areas: Latin America and the United States-Mexico border; regional studies of the Pacific Southwest; and postmodernism. In addition to books, the Press also publishes under its imprint the journals *Fiction International* and *Poetry International*.

San Diego State University Press imprint is controlled by an editorial committee of scholars, appointed by the provost and the senate. Financial accounting and coordination are provided by the San Diego State University Research Foundation.

Semester Study Abroad Programs

London Semester Academic Program

The London Semester academic program operates through a consortium of CSU campuses. It offers students the opportunity to study for a semester in London, while earning SDSU resident credit. Courses satisfying General Education requirements are taught by SDSU and other CSU faculty. To be eligible, students must be sophomores, juniors, or seniors in good academic standing. For further information, contact Carole Putko in the Department of History, Adams Humanities, Room 4210.

Madrid Semester Academic Program

The Madrid Semester academic program is administered by the Department of Spanish and Portuguese. This program offers students the opportunity to study the Spanish language and culture in Spain for four months and to live in Madrid. Open to SDSU and other California State University students in good standing who have completed at least three college semesters of Spanish (or equivalent). Most courses taught by faculty of the Center for Spanish Studies at Antonio de Nebrija University. Living accommodations with Spanish-speaking families throughout Madrid. Students earn 12-15 SDSU resident units toward the bachelor's degree. SDSU financial aid may be available to qualified students. For further information, contact the Department of Spanish and Portuguese Languages and Literatures, 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.

Veterans Affairs

Office of the Registrar
Student Services, Room 1641

Telephone: 619-594-5813

Veterans Affairs is located in the Office of the Registrar. Students who are eligible for veteran, dependent, or reservist V.A. education benefits should visit SDSU's Veterans Affairs Office (VAO). Services available through the Veterans Affairs Office include assistance in applying for education benefits, administration of the Cal Vet Fee Waiver program, coordinating the V.A. work study program, and processing tutorial assistance paperwork.

Students planning to attend SDSU should contact the Veterans Affairs Office two months before the beginning of their first semester to be advised on how to file for benefits. For additional information about the services provided, please telephone or visit the office.

University Policies

Student Responsibility for Catalog Information

Students are held individually responsible for the information contained in this catalog. The requirements listed in the "Graduation Requirements" section of the catalog are those requirements which the university will make every effort to preserve for students subject to this catalog. All other parts of the catalog, including this "University Policies" section, are subject to change from year to year as university rules, policies, and curricula change. Failure to keep informed of such changes will not exempt students from whatever penalties they may incur.

Changes in Rules and Policies

Although every effort has been made to assure the accuracy of the information in this catalog, students and others who use this catalog should note that laws, rules, and policies change from time to time and that these changes may alter the information contained in this publication. Changes may come in the form of statutes enacted by the Legislature, rules and policies adopted by the board of trustees of the California State University, by the chancellor or designee of the California State University, or by the president or designee of San Diego State University. It is not possible in this publication to include all of the rules, policies, and other information that pertain to students, San Diego State University, and the California State University. More current or complete information may be obtained from the appropriate department, school, or administrative office. Each semester, the *Class Schedule* outlines changes in academic policy and procedure and current deadlines which are of importance to students.

Nothing in this catalog shall be construed as, operate as, or have the effect of an abridgment or a limitation of any rights, powers, or privileges of the board of trustees of the California State University, the chancellor of the California State University, or the president of San Diego State University. The trustees, the chancellor, and the president are authorized by law to adopt, amend, or repeal rules and policies that apply to students. This catalog does not constitute a contract or the terms and conditions of a contract between the student and San Diego State University or the California State University. The relationship of the student to San Diego State University is one governed by statute, rules, and policy adopted by the Legislature, the trustees, the chancellor, the president and their duly authorized designees.

Privacy Rights of Students in Education Records

The federal Family Educational Rights and Privacy Act of 1974 (20 U.S.C. 1232g) 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. 20202-4605.

The campus is authorized under the Act to release "directory information" concerning students. The Office of the Registrar releases the following: student's name, major field of study, dates of attendance, degrees, honors, and awards received. Although federal law allows for the release of address, telephone listing, electronic mail address, photograph, place and date of birth, grade level, enrollment status, previous educational institution attended, and information related to participation in athletics, San Diego State University has a practice of not routinely releasing this information. The above designated information is subject to release by the campus at any time unless the campus has received prior written objection from the student specifying what information the student requests not be released. Students are given an opportunity to restrict the release of "directory information" about themselves by accessing <http://www.sdsu.edu/portal>.

The campus is authorized to provide access to student records to campus officials and employees who have legitimate educational interests in such access. These persons have responsibilities in the campus' academic, administrative or service functions and have reason for 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 well as other applicable federal and state laws prohibiting discrimination. No person shall, on the basis of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in any program of the California State University.

Disability

San Diego State University does not discriminate on the basis of disability in admission or access to, or treatment or employment in, its programs and activities. Sections 504 and 508 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and various state laws prohibit such discrimination. Students should address inquiries concerning San Diego State University's compliance with all relevant disability laws to the Director of Disabled Student Services, Student Services, Room 1661, San Diego State University, CA 92182 or call 619-594-6473.

Sex/Gender

San Diego State University does not discriminate on the basis of sex or gender in the educational programs or activities it conducts. Title IX of the Education Amendments of 1972 and certain other federal and state laws prohibit discrimination on the basis of sex in education programs and activities. Such programs and activities include admission of students and employment. Inquiries concerning the application of these laws to programs and activities can be directed to the director, Office of Diversity and Equity, 619-594-6464, or to the SDSU assistant athletic director of compliance, 619-594-0394, or to the regional director of the Office of Civil Rights, Region IX, 50 United Nations Plaza, Room 239, San Francisco, CA 94102.

The California State University is committed to providing equal opportunities to male and female CSU students in all campus programs, including intercollegiate athletics.

Sexual Orientation

By CSU board of trustees policy, San Diego State University does not discriminate on the basis of sexual orientation.

Immigration Requirements for Licensure

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (P.L. 104-193), also known as the Welfare Reform Act, includes provisions to eliminate eligibility for federal and state public benefits for certain categories of lawful immigrants as well as benefits for all illegal immigrants.

Students who will require a professional or commercial license provided by a local, state, or federal government agency in order to engage in an occupation for which the CSU may be training them must meet the immigration requirements of the Personal Responsibility and Work Opportunity Reconciliation Act to achieve licensure.

Grades

Definition of Grades for Undergraduate Students

Grades and grade points per unit used in reporting are as follows: Grade of **A** (outstanding achievement; available only for the highest accomplishment), 4 points; **B** (praiseworthy performance; definitely above average), 3 points; **C** (average; awarded for satisfactory performance; the most common undergraduate grade), 2 points; **D** (minimally passing; less than the typical undergraduate achievement), 1 point; **F** (failing), 0 points; **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; **Cr** (credit), signifying units earned, but not counted in the grade point average; **NC** (no credit), no credit earned and not counted in the grade point average; **I** (authorized incomplete), no credit earned and not counted in the grade point average until one calendar year has expired at which time it will 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 **A** (outstanding achievement; available for the highest accomplishment), 4 points; **B** (average; awarded for satisfactory performance), 3 points; **C** (minimally passing), 2 points; **D** (unacceptable for graduate credit, course must be repeated), 1 point; **F** (failing), 0 points; **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; **Cr** (credit), signifying units earned, but not counted in the grade point average; **NC** (no credit) no credit earned and not counted in the grade point average; **I** (authorized incomplete), no credit earned and not counted in the grade point average until one calendar year has expired at which time it will 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:

A = 4.0	C+ = 2.3	D– = 0.7
A– = 3.7	C = 2.0	F = 0
B+ = 3.3	C– = 1.7	WU = 0
B = 3.0	D+ = 1.3	I = 0
B– = 2.7	D = 1.0	IC = 0

Faculty members use all grades from A through F to distinguish among levels of academic accomplishment. The grade for average undergraduate achievement is C.

Report in Progress Grade – “RP”

The “RP” symbol is used in connection with courses that extend beyond one academic term. It indicates that work is in progress and has been evaluated and found to be satisfactory to date, but that assignment of a precise grade must await completion of additional work. Work is to be completed within a stipulated time period not to exceed one year except for graduate thesis (799A) or dissertation (899). Failure to complete the assigned work within one calendar year except for courses 799A, 899 will result in the course being computed into the grade point average as an “F” (or a “NC” if the course was taken for a credit/no credit grade). Graduate courses for which the “RP” symbol is appropriate are specifically designated in the departmental listings of the Bulletin of the Graduate Division.

Candidates for graduation whose record carries a grade of RP will be graduated provided they are otherwise eligible for graduation. However, the RP cannot be made up after the degree has been granted. If students do not wish to be graduated with the grade of RP on their record, they must officially cancel their application for graduation.

Withdrawal Grade – “W”

The symbol “W” indicates that you were permitted to drop a course after the first 15 class days of the semester because of a verified serious and compelling reason, and you have obtained the signature of the instructor and the approval of the dean or designee of the college in which the class is located. After the first 15 class days, the grade of “W” will appear on your permanent record for courses which an official drop has been approved.

Dropping a class is not permitted after the 15th class day of the semester by 6:00 p.m., except in cases such as accident or serious illness where the cause of dropping the class is due to circumstances clearly beyond your control, and the assignment of an incomplete is not practicable. All such requests must be accompanied by appropriate verification. Ordinarily, withdrawals in this category will involve total withdrawal from the university, except that credit, or an Incomplete, may be assigned for courses in which sufficient work has been completed to permit an evaluation to be made. Requests to withdraw under such circumstances must be signed by each instructor, who indicates your grade status in the class, and approved by the dean or designee of the college of your major.

After the last day of the semester, if you wish to change assigned grades to “W” grades you must request to withdraw from the full semester's work; no requests for individual classes will be accepted. Such requests may be granted only in verified cases such as accident or serious illness where the cause for substandard performance was due to circumstances clearly beyond your control. Only those retroactive changes from an assigned grade to a “W” which are approved by the instructor who assigned the original grade will be made, except that (a) the dean or designee of the college of your major may authorize the change of “WU” to “W,” and (b) department chairs shall act on behalf of instructors no longer affiliated with the university.

Auditing – “AU”

Enrollment as an auditor is subject to permission of the instructor, provided that enrollment in a course as an auditor shall be permitted only after students otherwise eligible to enroll on a credit basis have had an opportunity to do so. Auditors are subject to the same fee structure as credit students and regular class attendance is expected. Failure to meet required class attendance may result in an administrative drop of the course. Units taken for audit are not used in the calculation of enrollment status. To enroll as an auditor, obtain the **Change to Audit Grade** form from the Office of the Registrar. Obtain instructor approval and return the completed form by 6:00 p.m. on or before the 15th class day of instruction to the Office of the Registrar. Once enrolled as an auditor, you may not change to credit status unless such a change is requested by 6:00 p.m. prior to the end of the 15th class day of instruction. If you are enrolled for credit, you may not change to audit after the end of the 15th class day of instruction by 6:00 p.m.

Credit/No Credit (Undergraduate Student Option) – “Cr/NC”

An undergraduate student may elect to be graded credit/no credit in particular courses, subject to the following conditions:

1. Upper division courses graded credit/no credit (Cr/NC), whether taken at this or at another institution, may not be used to satisfy requirements for your major or minor except for those courses identified in the course listing as graded “Cr/NC.”
2. Courses graded credit/no credit may not be used to satisfy I. Communication and Critical Thinking and II. Foundations A.4 Mathematics/Quantitative Reasoning sections of General Education.
3. No more than 15 units graded credit/no credit may be offered in satisfaction of the total units required in a bachelor's degree program, except that all units accepted as transfer credit from another institution at the time of your admission may be used. If 15 or more units graded credit/no credit are transferred, you may not use additional courses graded credit/no credit to satisfy total units required for a bachelor's degree. Exceptions to this rule will be made only if you are required to take an SDSU course on a credit/no credit basis.
4. Units for courses required for graduation which are offered for Cr/NC only will not be counted as part of the 15 elective units of Cr/NC allowed.
5. If for any reason (change of major or minor or transfer from another institution) upper division courses graded credit/no credit are offered to satisfy requirements in the major, you may be required by the major department to pass competency examinations at an acceptable level or take prescribed alternate courses before being allowed to continue in the major.
6. Change in grading basis may be made through the SDSU WebPortal on or before the 15th day of instruction by 6:00 p.m. No changes in grading basis are permitted after that date.
7. A grade of “Credit” is awarded for work equivalent to all grades which earn 2.0 or more grade points (A through C). “No Credit” is awarded for work equivalent to all grades which earn less than 2.0 grade points (C– through F).
8. The only courses which may be repeated with a credit/no credit option are those in which you previously received a grade of “No Credit.” If a course previously taken for a grade is repeated for a grade of “Credit,” the original grade will continue to be used in computation of the grade point average.

NOTE: “NC” is not calculated in the grade point average at San Diego State University. However, some institutions, particularly for graduate admissions, calculate an “NC” as an “F.”

Authorized Incomplete Grade – “I”

The symbol “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 the student attended a portion of a course and then, after receiving failing grades, stopped attending without officially withdrawing, a final grade of “F” not “WU” should be assigned.

Computation of Grade Point Average

To compute the grade point average, the total number of grade points earned is divided by the number of units attempted. Units earned with a Cr (Credit) are not included in the computation. A grade of “I” (authorized incomplete) is not counted in the grade point computation until one calendar year has expired, at which time it will be 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. 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 five-course maximum. Although the original grade(s) will remain on the transcript, only the latest grade will be used in calculating grade point averages.
3. The course "forgiveness" and course repeat policy applies only to repeats of the **same course** (same number, same title, and, for Experimental Topics courses, same subtitle). Exceptions will be made only in those cases where the course number changes and the change is documented in the *General Catalog*.
4. In some cases, admission to courses may have become restricted due to impaction, limitation by major code, enforcement of prerequisites, or sequence requirements (e.g., mathematics and foreign language); in those cases, you are prohibited from repeating those courses.
5. The only courses which may be repeated Credit/No Credit are those in which you previously received No Credit; if a course previously taken for a grade is repeated Credit/No Credit, the original grade will continue to be calculated in grade point averages. Repeating courses in which the original grade was "NC" does not require the filing of the Course Forgiveness Petition, nor does it subtract from the five forgivable repeats permitted, since the No Credit grade does not affect your GPA.
6. The course "forgiveness" policy may be extended to courses originally taken elsewhere and repeated at San Diego State University, in which case the original transfer grade will no longer be used in the calculation of the overall grade point average. However, *the "forgiveness" policy applies only to courses repeated at San Diego State University*.
7. The course "forgiveness" policy applies to courses repeated at San Diego State University in summer term and to courses repeated through Open University during summer term, fall and/or spring semesters.
8. *If courses with C- or lower grades are repeated without appropriate notification having been filed or in excess of course repeat limitations (no more than two repeats per course, no more than five repeats total), course "forgiveness" will not be applied; all grades for those courses will be calculated in grade point averages. Units for a course will be counted only once toward graduation, regardless of number of repeats.*
9. If you repeat a course in which a grade of C or better was received, only the original grade and units earned will be used for calculation of grade point averages and units needed for a degree.
10. Course "forgiveness" is only applicable to undergraduate students pursuing a first bachelor's degree.

Assignment of Grades and Grade Appeals

1. Faculty have the right and responsibility to provide evaluation and timely assignment of appropriate grades.
2. There is a presumption that grades assigned are correct. It is the responsibility of anyone appealing an assigned grade to demonstrate otherwise.
3. If you believe that an appropriate grade has not been assigned you should first seek to resolve the matter with the instructor of record. If the matter cannot be resolved informally, you may present the case to the appropriate campus entity, have it reviewed and, where justified, receive a grade correction.
4. It is your responsibility to attempt to resolve grade disputes in a timely manner, typically during the semester following the semester the questioned grade was received. If twelve or more months have elapsed since the grade was issued, or you have graduated, no grade change will be considered.

Courses

Satisfaction of Requirements

Except as permitted in the Graduation Requirements section of the catalog, a course cannot be used to satisfy more than one requirement.

Numbering of Courses

Courses numbered 80 through 99 are nonbaccalaureate level and are not acceptable for a bachelor's degree; those numbered 100 through 299 are in the lower division (freshman and sophomore years); those numbered 300 through 499 are in the upper division (junior and senior years) and intended for undergraduates; those numbered 500 through 599 are in the upper division and are also acceptable for advanced degrees when taken by students admitted to graduate standing; those numbered 600 through 799 are graduate courses; and those numbered 800 through 899 are doctoral courses.

Courses numbered at the 900 level, except 997, are reserved for graduate courses in certain professional curricula as part of advanced certificate, credential, and licensure programs and are specifically intended for students admitted to the university with postbaccalaureate classified standing. Undergraduate students may enroll in these courses only if they are officially admitted to a blended or integrated program where undergraduate and credential coursework is included in the same program. Courses numbered at the 900 level are not applicable to other graduate programs.

Courses numbered 397 offered in regular sessions are professional advancement training or tutorial/discussion classes that accompany other credit courses and are not acceptable towards an undergraduate or graduate degree.

Courses numbered X-01 through X-79 and X-397 are Extension professional development units offered only through Extension to meet specific academic needs of community groups and are not acceptable toward an undergraduate or graduate degree.

Undergraduate Enrollment in 600-, 700-, and 800-Numbered Courses

1. You must obtain permission of the instructor.
2. You must be a senior in good standing and have a B (3.0) GPA average.
3. Undergraduate enrollments may not cause the exclusion of a qualified graduate student in a graduate course.
4. Undergraduate students must complete a petition for request to enroll which is available in the 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 500-numbered courses listed in the *Bulletin of the Graduate Division* as acceptable for master's degree programs, and certain 600- and 700-numbered courses approved by the department, with the remaining requirements for the bachelor's degree. Petitions may be obtained from the Graduate Division and must be submitted to the Office of the Registrar by the end of the third week of classes of the semester or term in which the concurrent credit is earned, and you must have on file a current graduation application for the bachelor's degree. The maximum number of units which may be earned as concurrent master's degree credit is determined by the difference between the number of units remaining for the bachelor's degree and 15.

Concurrent Postbaccalaureate Credit

Applicable to the "Fifth Year" Credential Requirement Only.

Concurrent postbaccalaureate credit may be earned during the final semester or summer term by seniors admitted to the College of Education who meet all of the following qualifications:

1. Have a minimum grade point average of 2.85 on the last 60 units attempted.
2. Complete coursework in excess of graduation requirements during the semester (or summer term) when graduation occurs.
3. Attempt no more than 21 units during the final undergraduate semester.
4. Request no more than a maximum of 12 units of 300, 400, 500, or 900-numbered courses for postbaccalaureate credit.
5. Submit petition before the end of the first week of classes of the final undergraduate semester (or term) when graduation occurs.
6. Petition the assistant dean of the College of Education.
7. Graduate at the end of the semester (or summer term) the petition is made.

Extension courses are not acceptable for concurrent postbaccalaureate credit. Concurrent postbaccalaureate credit will not be granted retroactively.

Petition forms are available in the Office of the Registrar, SS-1641.

Credit for Extension Courses

The maximum amount of extension and correspondence credit which may be accepted toward the minimum requirements for the bachelor's degree is 24 semester units. Extension and correspondence credit are not counted in satisfaction of the minimum residence requirement. A maximum of nine units in extension courses at San Diego State University may be accepted as part of the requirements for the master's degree, subject to limitations described in the *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.

<p>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.</p> <p>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.</p>				
<p>GENERAL EXAMINATIONS (Paper & Pencil Testing through June 2001)</p>				
EXAMINATION	PASSING SCORE	MAXIMUM CREDIT GRANTED	GENERAL EDUCATION CREDIT	
Natural Science	500	6 units	3 units in life science 3 units in physical science	
Social Science	500	6 units	3 units in social science 3 units in history	
Humanities	500	6 units	3 units in literature 3 units in fine arts	
Mathematics	500	3 units	None.	
<p>SUBJECT EXAMINATIONS (Paper & Pencil Testing through June 2001)</p>				
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
<p>SUBJECT EXAMINATIONS (Computer Based Testing [CBT] beginning July 2001)</p>				
EXAMINATION	PASSING SCORE	CREDIT GRANTED	SDSU COURSE EQUIVALENCY	GENERAL EDUCATION CREDIT
College Algebra/ Trigonometry	50	3 units	MATH 141	Yes
Calculus	50	3 units	MATH 121	Yes
Chemistry	50	3 units	CHEM 200	Yes
Humanities	50	6 units		3 units in literature 3 units in fine arts
Mathematics, College	50	3 units		None
Natural Sciences	50	6 units		3 units in life sciences 3 units in physical sciences
Social Sciences and History	50	6 units		3 units in social science 3 units in history

University Policies

Advanced Placement Credit				
EXAMINATION	S C O R E	Semester units credit allowed toward degree	SDSU course equivalents*	REMARKS
Art History.....	3, 4, 5	6	Art 258 and 259	
Art, Studio:				
Drawing.....	3, 4, 5	3	Art 100	
2D Design	3, 4, 5	3	Art 101	
3D Design	3, 4, 5	3	Art 103	
Biology.....	3, 4, 5	6	Biology 100,100L and 2 units of Biology 299	
Chemistry	3, 4, 5	6	Chemistry 200, 201	
Classics:				
Latin Literature	3, 4	5	Classics 202L	If both examinations are passed with scores of 5, additional 3 units credit for Classics 304L will be provided.
	5	6	Classics 202L and 303L****	
Vergil	3, 4	5	Classics 202L	
	5	6	Classics 202L and 303L****	
Computer Science				
A**	3	3	Computer Science 299	
	4, 5	3	Computer Science 107	
AB**	3	6	Computer Science 107 and 3 units of Computer Science 299	
	4, 5	6	Computer Science 107 and 108	
Economics:				
Macro	3, 4, 5	3	Economics 101	
Micro	3, 4, 5	3	Economics 102	
English:				
Lang. and Comp.....	5	6	Rhetoric and Writing Studies 100 and 200	Exempts from CSU English Placement Test and satisfies Writing Competency.
	3,4	6	Rhetoric and Writing Studies 100 and 3 units of Rhetoric and Writing Studies 299	
Lit. and Comp.	3, 4, 5	6	English 220 and Rhetoric and Writing Studies 100	
Environmental Science.....	3, 4, 5	6	Environmental Sciences 100 and 3 units of Environmental Sciences 299	Satisfies three units of electives.
French Language	3	6	French 201 and 210	Satisfies the language requirement.
	4, 5	6	French 220 and 221	
French Literature	3, 4, 5	6	French 305A and 305B	
Geography:				
Human Geography	3, 4, 5	3	Geography 102	
German Language	3	3	German 202	Satisfies the language requirement.
	4, 5	8	German 205A and 205B	
History:				
United States	3, 4, 5	6	History 109 and 110	Satisfies American History/Institutions and Ideals, and U.S. Constitution requirements. Does not satisfy Calif. government requirement.
European.....	3, 4, 5	6	History 106 and 3 units of History 299	
World History	3, 4, 5	3	History 101	
Mathematics:				
Calculus AB	3, 4, 5	4	Mathematics 150	Exempts from CSU Entry Level 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 Theory	3, 4, 5	6	Music 205A-205B***	
Physics:				
B.....	4, 5	3	Physics 180A	
C (Mechanics)	4, 5	3	Physics 195	
Political Science				
Govt./Politics: United States	3, 4, 5	6	Political Science 101 and 102	Satisfies American History/Institutions 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: United States and Comparative.....	3, 4, 5	12	Political Science 101, 102, 103, 296	
Psychology	3, 4, 5	3	Psychology 101	
Spanish Language	3	6	Spanish 103 and 211	Satisfies the language requirement.
	4, 5	6	Spanish 202 and 212	
Spanish Literature.....	3, 4, 5	6	Spanish 405A-405B	
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 language requirement.

International Baccalaureate Credit				
EXAMINATION	SCORE	Semester units credit allowed toward degree	SDSU course equivalents*	REMARKS
Art/Design	Higher 4-7	6	See department.	
Biology	Higher 4-7	6	Biology 100 and 100L	Two additional units of Biology 299.
English A1	Higher 4-7	6	English 220 and Rhetoric and Writing Studies 100	Exempts from CSU English Placement Test and satisfies Writing Competency.
French	Higher 4-7	6	French 220 and 221	Satisfies Language Graduation Requirement and lower division prerequisites.
Geography	Higher 4-7	6	Geography 101 and 102	
German	Higher 4-7	6	German 202 and 205B	Satisfies Language Graduation Requirement and lower division prerequisites.
History of the Americas	Higher 4-7	6	History 115 and 116	Satisfies American Institutions, except California government.
Spanish A2	Higher 4-7	6	Spanish 202 and 212	Satisfies the Language Graduation Requirement and lower division prerequisites.
Spanish B	Higher 4-7	6	Spanish 202 and 212	Satisfies Language Graduation Requirement and lower division prerequisites.
Theatre Arts	Higher 4-7	6	See department adviser.	
*Credit may not be earned at SDSU for courses which duplicate credit already allowed for examinations as listed under SDSU course equivalents.				

Credit for Advanced Placement Examinations

San Diego State University grants credit toward its undergraduate degrees for successful completion of examinations of the Advanced Placement Program of The College Board. Students who present scores of three or better 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 in this section of the catalog indicates the units granted for the score attained and the course equivalents for each of the examinations offered.

Credit for College-Level Examination Program (CLEP)

The university grants credit on four of the five CLEP General Examinations (Humanities, Mathematics, Natural Sciences, and Social Sciences) and on four of the CLEP Subject Examinations (Calculus with Elementary Functions, College Algebra and Trigonometry, General Chemistry). See the Academic Credit Through Examination table in this section of the catalog.

Credit for International Baccalaureate Certificates or Diplomas

San Diego State University normally grants six units of credit for each International Baccalaureate Higher Level subject examination passed with a score of 4 or better. To receive credit, you must request that your International Baccalaureate transcript of grades be sent to San Diego State University's Office of Advising and Evaluations.

The International Baccalaureate Credit table identifies established course equivalencies. Subject examinations not listed in the table will be evaluated for appropriate course credit by the departmental adviser.

Credit by Examination

Students may challenge courses by taking examinations developed at San Diego State University. Up to 30 units will be awarded to those who pass the examinations successfully, and the grade(s) earned, including "F," will be used in San Diego State University grade point calculations. At the discretion of the department a grade of 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 600- and 700-numbered or Extension courses, and does not count toward the 30-unit minimum residency requirement.
5. Credit-by-examination is not treated as part of your study load and, therefore, is not considered by the Veterans Administration in the application of their regulations; and is not always accepted as transfer credit between collegiate institutions.
6. Credit-by-examination is restricted to the regular summer, fall, or spring semester.

Credit for Noncollegiate Instruction

San Diego State University grants undergraduate degree credit for successful completion of noncollegiate instruction, either military or civilian, appropriate to the baccalaureate degree, that has been recommended by the Commission on Educational Credit and Credentials of the American Council on Education. The number of units allowed are those recommended in the *Guide to the Evaluation of Educational Experience in the Armed Services* and the *National Guide to Educational Credit for Training Programs*.

Credit will be considered to be elective units in most cases. Petitions for acceptance of credits toward specific requirements are available in the Office of the Registrar. Applicability to specific degree requirements (General Education, Major, Minor, etc.) is subject to approval of the appropriate campus authority.

Academic Credit for Military Service

The university is guided by the recommendations of the American Council on Education in granting undergraduate credit toward the bachelor's degree for military service. Postgraduate credit is not granted.

To obtain credit for military service, you must be fully matriculated, be enrolled at the university, and submit 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 <http://www.sdsu.edu/portal>. If all of your SDSU coursework has been taken since fall 1987, your entire record will be available on the web. If you completed coursework at SDSU prior to fall 1987, you must contact the Office of the Registrar to obtain an unofficial transcript reflecting that portion of your record. Unofficial transcripts do not bear the seal of the university and are not suitable for transfer purposes.

Full-Time Student Status

Full-time student status for undergraduates at SDSU is 12 units per semester. Full-time enrollment for a graduate student is nine units of coursework numbered 500 through 999. Units taken for audit are not used in the calculation of enrollment status. You can obtain verification of your enrollment from the Office of the Registrar by any of the following methods: (1) in person with proper photo identification in 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

Students must satisfy course prerequisites (or their equivalent) prior to beginning the course requiring the prerequisite. Faculty have the authority to enforce prerequisites listed in the catalog, to evaluate equivalent preparation, and to require proof that such prerequisites/preparation have been completed.

If you do not meet the prerequisite requirements, you **MAY BE DROPPED FROM THAT COURSE BY THE INSTRUCTOR** within the first 12 class days of the semester **OR** the instructor may request that you personally take formal action to drop the class. Failure to comply will result in a failing grade.

Schedule Adjustment

Schedule adjustment includes: dropping a class, adding a class, adding or reducing units of a class for which the student is already registered, changing a section of the same class, withdrawing from the university, or changing grading options. Schedule adjustments are accepted until 6:00 p.m. on the 15th class day of the semester at <http://www.sdsu.edu/portal>.

You are responsible for every course in which you are registered. If you do not attend the first class meeting of the semester and you are not present at the start of the second meeting, the professor may give your place to another student. If this occurs, you have forfeited your place and the instructor may drop you from the course within the first 12 class days of the semester or request that you personally take formal action to drop the class. **Not all instructors will drop students who miss the first class session and the beginning of the second class session.** Students are responsible for all courses on their schedules. Students should check their online schedules regularly and take necessary action to add or drop during the first 15 class days of the semester by 6:00 p.m. If you do not attend a class and do not ensure that the course is dropped, you will receive a failing grade.

Students are not permitted to drop a class after the 15th class day of the semester at 6:00 p.m., except in cases such as accident or serious illness where the cause of dropping the class is due to circumstances clearly beyond the student's control and the assignment of an Incomplete is not practicable. All such requests must be accompanied by appropriate verification. Ordinarily, withdrawals in this category will involve total withdrawal from the university, except that credit, or an Incomplete, may be assigned for courses in which sufficient work has been completed to permit an evaluation to be made. Requests to withdraw under such circumstances must be signed by each instructor, who indicates your grade status in the class, and approved by the dean (or designee) of the college of the student's major.

Deadlines

For the fall 2005 semester, the Schedule Adjustment Deadline is 6:00 p.m. on September 21, 2005. This includes adding a class, dropping a class, changing grading basis, or withdrawing from the university.

For the spring 2006 semester, the Schedule Adjustment Deadline is 6:00 p.m. on February 7, 2006. This includes adding a class, dropping a class, changing grading basis, or withdrawing from the university.

Change of Major

Based on your application for admission, you are admitted to a pre-major, major, or designated as an undeclared major. If, after registration, you wish to change your major, you should check with the department of your intended major for requirements and filing periods.

Change of Major forms are available at the Office of the Registrar and require approval of the change by the new major department. After approval, return the form to the Registrar's Office. You will be required to meet the major and minor requirements stated in the *General Catalog* that are in effect when you submit your change or declaration.

If you are admitted to a premajor, you must complete specific requirements before you will be admitted to the major. Requirements are described in the section of this catalog on Courses and Curricula, or you may contact the major department for information. Requirements are also described on the SDSU Web site at <http://www.sdsu.edu/impactedmajors>. If you are a veteran using veteran benefits, you must obtain appropriate approval from the Veterans Administration for necessary changes in letters of eligibility.

Academic Renewal

Under certain circumstances the campus may disregard up to two semesters or three quarters of previous undergraduate coursework taken at any college from all considerations associated with requirements for the baccalaureate degree. These circumstances are:

1. You are a candidate for the baccalaureate degree at San Diego State University.
2. You have requested the action formally and have presented evidence that work completed in the term(s) under consideration is substandard and not representative of present scholastic ability and level of performance; and
3. The level of performance represented by the term(s) under consideration was due to extenuating circumstances; and
4. There is every evidence that you would find it necessary to complete additional units and enroll for one or more additional terms in order to qualify for the baccalaureate degree if the request were not approved.

Final determination that one or more terms shall be disregarded in determination of eligibility for graduation shall be based upon a careful review of evidence by a committee appointed by the president which shall include the provost and consist of at least three members. Such final determination shall be made only when:

1. Five years have elapsed since the most recent work to be disregarded was completed; and
2. You have completed at SDSU, since the most recent work to be disregarded was completed, 15 semester units with at least a 3.0 GPA, 30 semester units with at least a 2.5 GPA, or 45 semester units with at least a 2.0 GPA. Work completed at another institution cannot be used to satisfy this requirement.

When such action is taken, your permanent academic record shall be annotated so that it is readily evident to all users of the record that **no** work taken during the disregarded term(s), even if satisfactory, may apply toward baccalaureate requirements. However, all work must remain legible on the record ensuring a true and complete academic history.

The procedure for filing Petition for Academic Renewal is as follows:

1. Obtain the petition from the Division of Undergraduate Studies, AD-101.
2. Fill in the form carefully and completely.
3. Attach statements and documentary evidence from doctors, lawyers, employers, parents, professors, or other appropriate persons to substantiate your claim that the request is justified.
4. Obtain all necessary clearances and signatures.
5. Return all materials to the Division of Undergraduate Studies, AD-101.

Cancellation of Registration, Withdrawal, Leaves of Absence, Readmission, Evaluation, and Military Service

Cancellation of Registration, Withdrawal

Students who find it necessary to cancel their registration or to withdraw from the university all classes after enrolling for any academic term must initiate action formally through the Office of the Registrar and follow the university's official withdrawal procedures. Failure to follow formal university procedures may result in an obligation to pay fees as well as the assignment of failing grade in all courses and the need to apply for readmission before being permitted to enroll in another academic term. Information on canceling registration and withdrawal procedures is available from the Office of the Registrar.

A student who has not paid fees and is not enrolled in at least one class (other than for audit) by 6:00 p.m. on the 15th class day of the semester is no longer considered a continuing student and may be required to apply for readmission.

A course will not appear on the permanent record if withdrawal occurs before the end of the 15th class day of the semester by 6:00 p.m. After the 15th class day of the semester, withdrawals are not permitted except in cases where the cause of withdrawal is due to circumstances clearly beyond your control, such as accident or serious illness. All such requests must be accompanied by appropriate verification. Credit or an incomplete may be assigned for courses in which sufficient work has been completed to permit an evaluation to be made. Refer to the *Class Schedule* for appropriate dates for the deadlines indicated above.

After the last day of the semester, if you wish to change assigned grades to "W" grades, you must request to withdraw from the full semester's work; no requests for individual classes will be accepted. Such requests may be granted only in verified cases such as accident or serious illness where the cause for substandard performance was due to circumstances clearly beyond your control.

Students who receive financial aid funds must consult with the Office of Financial Aid and Scholarships prior to withdrawing from the university regarding any required return or repayments of grant or loan assistance received for that academic term or payment period. If a recipient of student financial aid funds withdraws from the institution during an academic term or a payment period, the amount of grant or loan assistance received may be subject to return and/or repayment provisions.

Unofficial Withdrawal

If you withdraw unofficially from classes or from the university, you will receive failing grades in all courses that you stop attending. An unofficial withdrawal is one in which you stop attending classes without filing official withdrawal forms within the established deadlines.

Veterans unofficially withdrawing will have veteran's allowances immediately suspended and will be subject to full repayment of allowances received after date of unofficial withdrawal.

Leaves of Absence

One-Semester Stop Out. With certain exceptions, matriculated undergraduate and graduate students may stop out of the university one semester in a calendar year and maintain their continuing student status. Continuing status includes the maintenance of catalog requirements for graduation. Disqualified students, students absent for more than one semester without an approved leave of absence, and those who attend another institution for more than one semester must apply for readmission should they wish to return to San Diego State University. Students who are disqualified are not eligible for a one-semester stop out.

Educational Leave of Absence. Students are permitted to take up to four semesters of approved leave of absence. An educational leave of absence is appropriate in those cases where students will be engaged for the majority of the leave time in an activity, other than attending an accredited college or university, that is directly related to

their formal academic careers or otherwise contributes to specific academic goals. Students must apply for the particular semester they wish to be absent from school. If they wish to take leave for additional semesters, they must do so on a semester-by-semester basis. Students may request a leave of absence at <http://www.sdsu.edu/portal>.

The *Class Schedule* lists specific deadlines. For students participating in the CSU visitors' program, units completed at the visitor campus will be considered resident units; they will not, however, be calculated into the San Diego State University grade point average.

Approval for educational leaves of absence will be granted only to undergraduate students who have completed a minimum of one semester at San Diego State University, who are in good academic standing, and who are eligible to register. Leaves will not be granted to students on probation, students who are subject to disqualification or have been disqualified, students who qualify for a change from undergraduate to graduate status, or students who have a registration hold.

Readmission

Information on readmission is given in the section of this catalog on Admission and Registration, page 62.

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 <http://www.sdsu.edu/portal>.

Military Called to Compulsory Service

For further information about the policy for Military Called to Compulsory Service, contact the Veteran's Affairs Office at 619-594-5813.

Credit and Study List Limits

A unit or credit hour represents 50 minutes of lecture or recitation combined with two hours of preparation per week throughout one semester of 16 weeks. Two hours of activity (as in exercise and nutritional sciences) or three hours of laboratory (as in the sciences) are equivalent to one hour of lecture.

During initial registration, students can enroll in a maximum of 18 units. During the 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 have a grade point average of at least 3.50 based on a minimum of 12 units of credit for courses in which letter grades were assigned. The computation of grade points will be made six weeks after the end of the semester to include students who complete Incomplete grades promptly.

Students will be recognized by the dean of their respective college; undeclared and liberal studies majors will be listed by the dean of undergraduate studies.

Academic Probation, Disqualification, and Readmission of Undergraduate Students

Academic Probation

The purpose of probation is to warn students that their academic performance is below the state minimum required for graduation and to indicate that improvement is required before a degree can be granted.

An undergraduate student whose grade point average falls below a C average (2.0) for either all baccalaureate level college work attempted or all work attempted at San Diego State University will be placed on academic probation at the end of the semester.

Provided a student earns a C average (2.0) or better in San Diego State University work during the semester while on academic probation, academic probation may be continued up to a maximum of three semesters.

Academic probation will be lifted when the student has attained a C (2.0) average or better on all baccalaureate level college work attempted and on all work attempted at San Diego State University.

Summer Term and Open University courses are included in the SDSU grade point average; Extension courses are calculated only in the overall grade point average.

Grade point average is computed by dividing the number of grade points accumulated by the number of graded units attempted (see chart under "Plus/Minus Grading" for number of grade points assigned per unit in each grade category.)

Academic Disqualification

Students who are admitted to SDSU in good standing will not be disqualified at the end of their first semester of coursework at San Diego State University. After the first semester, students will be disqualified at the end of the fall or spring semesters if the following conditions exist:

1. A student on probation fails to earn at least a 2.0 grade point average (C average) in San Diego State University work for any semester while on probation, or
2. A student on academic probation still has less than a 2.0 grade point average in all work attempted at San Diego State University at the end of the third semester on probation.

Students who have been disqualified from SDSU will not be allowed to attend Open University or classes through the SDSU College of Extended Studies Special Sessions until one year from the date of their disqualification.

Readmission of Academically Disqualified Students

Information on readmission is given in the section of this catalog on Admission and Registration, page 62.

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 student-athlete must be enrolled in an academic program leading to a recognized degree, must be making satisfactory progress toward that degree under the rules of the institution and the NCAA.

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) Willful, material, and substantial obstruction or disruption, on or off campus property, of the campus educational process, administrative process, or other campus function.
- (e) Physical abuse on or off campus property of the person or property of any member of the campus community or of members of his or her family or the threat of such physical abuse.
- (f) Theft of, or nonaccidental damage to, campus property, or property in the possession of, or owned by, a member of the campus community.
- (g) Unauthorized entry into, unauthorized use of, or misuse of campus property.
- (h) On campus property, the sale or knowing possession of dangerous drugs, restricted dangerous drugs, or narcotics as those terms are used in California statutes, except when lawfully prescribed pursuant to medical or dental care, or when lawfully permitted for the purpose of research, instruction or analysis.
- (i) Knowing possession or use of explosives, dangerous chemicals or deadly weapons on campus property or at a campus function without prior authorization of the campus president.
- (j) Engaging in lewd, indecent, or obscene behavior on campus property or at a campus function.
- (k) Abusive behavior directed toward, or hazing of, a member of the campus community.
- (l) Violation of any order of a campus president, notice of which had been given prior to such violation and during the academic term in which the violation occurs, either by publication in the campus newspaper, or by posting on an official bulletin board designated for this purpose, and which order is not inconsistent with any of the other provisions of this Section.
- (m) Soliciting or assisting another to do any act which would subject a student to expulsion, suspension or probation pursuant to this Section.

- (n) Unauthorized recording, dissemination, and publication of academic presentations for commercial purposes. This prohibition applies to a recording made in any medium, including, but not limited to, handwritten or typewritten class notes.
- (1) The term "academic presentation" means any lecture, speech, performance, exhibition, or other form of academic or aesthetic presentation, made by an instructor of record as part of an authorized course of instruction that is not fixed in a tangible medium of expression.
- (2) The term "commercial purpose" means any purpose that has financial or economic gain as an objective.
- (3) "Instructor of record" means any teacher or staff member employed to teach courses and authorize credit for the successful completion of courses.
- (o) 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, sling-shot, billy, sandclub, sandbag, metal knuckles; any dirk, dagger, switchblade knife, pistol, revolver, or any other firearm; any knife having a blade longer than five inches; any razor with an unguarded blade, and any metal pipe or bar used or intended to be used as a club.
- (4) The term "behavior" includes conduct and expression.
- (5) The term "hazing" means any method of initiation into a student organization or any pastime or amusement engaged in with regard to such an organization which causes, or is likely to cause, bodily danger or physical or emotional harm, to any member of the campus community; but the term "hazing" does not include customary athletic events or other similar contests or competitions.
- (6) The causes for discipline in this section shall, as appropriate, include computer-related crimes as provided in Section 502 of the Penal Code.
- (p) This Section is not adopted pursuant to Education Code Section 89031.
- (q) 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.

Note: Authority cited: Sections 66300, 66452, and 89030, Education Code. Reference: Sections 66300, and 66450 *et seq.*, Education Code.

41302. Disposition of Fees: Campus Emergency; Interim Suspension.

The president of the campus may place on probation, suspend, or expel a student for one or more of the causes enumerated in Section 41301. No fees or tuition paid by or for such student for the semester 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 may notify a student's parent(s) or legal guardian(s) in the event compelling circumstances exist affecting the student's health or safety, including circumstances involving alcohol or controlled substances.

This statement is presented to students to provide information about (1) health risks associated with alcohol and other drugs, (2) prevention and treatment programs available on campus, and (3) applicable State laws and campus policies. For more information, please contact SDSU's coordinator of Alcohol and Other Drug Initiatives, 619-594-4133.

Risks

Use and abuse of alcohol and other drugs can lead to accidents, injury, and other medical emergencies. Alcohol, especially in high doses, or when combined with medications or illegal drugs continues to claim the lives of college students across the nation. If you see someone unconscious, call 9-1-1; doing so may save his or her life.

Driving after consumption of even relatively small quantities of alcohol can substantially increase your risk of crash involvement. Even after just a drink or two, drinkers may experience some loss of their ability to think about complex problems or accomplish complex tasks. Drinkers may also lose some control over impulsive behavior.

To become dependent upon chemicals such as alcohol and/or illicit drugs is to put your health and life at risk. Chemical dependency is a condition in which the use of mood altering substances, such as drugs or alcohol, affect any area of life on a continuing basis. Medical research has established very strong evidence that alcohol abuse contributes significantly to cancer and heart disease. Many illicit drugs have also been demonstrated to lead to serious short and long-term health problems. There is clear evidence of serious negative effects on babies due to use of illicit drugs and alcohol by the mother during pregnancy.

Campus Resources

Keeping yourself informed is an important step in developing a healthy lifestyle and in knowing how to cope with problems as they arise. SDSU provides useful and informative prevention education programs throughout the year. A variety of departments sponsor workshops and lectures on alcohol and drug related issues to support and encourage healthy, productive lifestyles. These programs are available through: Counseling & Psychological Services, 619-594-5220; Residential Education Office, 619-594-5742; Center on Substance Abuse, 619-594-5472; Athletic Department, 619-594-5164; Student Health Services, 619-594-4133; Public Safety Department, 619-594-1987.

For students with substance abuse problems or concerns, assistance is available at SDSU's Counseling & Psychological Services (CPS) located in 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.calbar.ca.gov/calbar/pdfs/cbj/kids_and_the_law.pdf or California Alcohol Beverage Control Web site <http://www.abc.ca.gov/teencorner.html>. Federal and state laws define a number of substances as "drugs" with sanctions related to their manufacture, sale, possession, and use varying by type of substance and quantity. See California State Bar Web site http://www.calbar.ca.gov/calbar/pdfs/cbj/kids_and_the_law.pdf.

Campus standards of conduct prohibit the unlawful possession, use, or distribution of drugs and alcohol by students on university property or as any part of the university's activities. Students who violate these standards of conduct may face suspension or expulsion from the university. In addition, the university will cooperate with governmental authorities in criminal and civil actions. The university does not accept alcohol or substance abuse as an excuse, reason, or rationale for any act of abuse, harassment, intimidation, violence, or vandalism.

Possession or consumption of distilled liquor on university property is prohibited at all times. Possession, consumption, or sale of beer or wine by those 21 years of age or older is permitted at designated campus locations and events only with prior approval of the vice president for student affairs.

On campus property, the sale, distribution, knowing possession, and use of dangerous drugs or narcotics are prohibited. You are also forbidden by State and Federal laws to sell, distribute, possess, or use those drugs.

Student organizations, residence halls, athletics, and Greek Life have instituted additional policies regarding alcohol and drugs. Please contact relevant administration offices for more information.

As a student at SDSU, you are responsible for your behavior and are fully accountable for your actions. Violation of this policy statement will not go unchallenged within the SDSU community. Any university student may be expelled, suspended, or placed on probation for violating university regulations regarding alcohol or drugs. Additionally, using alcohol or drugs negatively affects your academic performance.

Students who possess, use, or distribute substances such as marijuana, cocaine, methamphetamines, or other hallucinogens and narcotics, or who violate statutes regarding alcoholic beverages, are subject to arrest, imprisonment, or a fine according to State law. The SDSU Department of Public Safety is empowered to enforce all State and Federal laws, including public drunkenness, driving under the influence, and possession of alcohol by a minor.

The university's commitment to exercising disciplinary powers in cases of illegal alcohol and drug abuse complements its full measure of support for students who seek help for themselves or their acquaintances. These two approaches, combined with an active prevention education program, provide a strong basis for maintaining university expectations for a safe, healthy, and productive campus community. We hope that you will take advantage of the programs and services available to you, and that you will join with us in creating a viable learning community.

SDSU Smoke Free Policy

This policy implements CSU Executive Order 599, in accordance with Education Code 89031.

Smoking is prohibited in all San Diego State University buildings or leased spaces and motor pool vehicles.

Smoking is prohibited in those outdoor areas which are either connected to or in close proximity of SDSU buildings or leased space if the smoke can readily enter the building through open doors, windows, or ventilation system intakes.

Smoking is prohibited in outdoor areas immediately adjacent to SDSU owned or leased food establishments unless designated as a smoking area, consistent with the overall goals of this policy; smoking is prohibited in outdoor SDSU owned or leased constructed seating areas where people are likely to congregate, unless designated as a smoking area.

The success of this policy depends upon the thoughtfulness, consideration, and cooperation of everyone. Deans, directors, and department chairs are responsible for implementing this policy. The associate vice president for faculty affairs and the director of the Center for Human Resources are available to assist in the policy interpretation and to ensure its consistent application.

To aid persons desiring to stop smoking, the university offers smoking cessation programs for students through Student Health Services and for faculty and staff through the Center for Human Resources.

The SDSU auxiliary organizations shall operate in conformity with this campus policy.

Safety and Security Report

In accordance with the requirements of the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, the San Diego State University Safety and Security Report and current annual crime statistics are available on-line at: <http://www.police.sdsu.edu>. Printed copies are available at the University Police Department lobby, Student Services, Room 1410 or by calling the University Police Crime Prevention Unit at 619-594-1985.



General Information

Availability of Institutional and Financial Assistance Information

The following information concerning student financial assistance may be obtained from the Office of Financial Aid and Scholarships, Student Services, Room 3605, 619-594-6323, or at <http://www.sdsu.edu/financialaid>:

1. A description of the federal, state, institutional, local, and private student financial assistance programs available to students who enroll at San Diego State University;
2. For each aid program, a description of procedures and forms by which students apply for assistance, student eligibility requirements, criteria for selecting recipients from the group of eligible applicants, and criteria for determining the amount of a student's award;
3. A description of the rights and responsibilities of students receiving financial assistance, including federal Title IV student assistance programs, and criteria for continued student eligibility under each program;
4. The satisfactory academic progress standards that students must maintain for the purpose of receiving financial assistance and criteria by which a student who has failed to maintain satisfactory progress may reestablish eligibility for financial assistance;
5. The method by which financial assistance disbursements will be made to students and the frequency of those disbursements;
6. The terms of any loan received as part of the student's financial aid package, a sample loan repayment schedule, and the necessity for repaying loans;
7. The general conditions and terms applicable to any employment provided as part of the student's financial aid package;
8. The responsibility of San Diego State University for providing and collecting exit counseling information for all student borrowers under the federal student loan programs; and
9. The terms and conditions for deferral of loan payments for qualifying service under the Peace Corps Act, the Domestic Volunteer Service Act of 1973, or comparable volunteer community service.

Information concerning the cost of attending San Diego State University is available from the Office of Financial Aid and Scholarships, Student Services, Room 3605, 619-594-6323, or at <http://www.sdsu.edu/financialaid>, and includes fees and tuition; the estimated costs of books and supplies; estimates of typical student room, board, and transportation costs; and, if requested, additional costs for specific programs.

Information concerning the refund policies of San Diego State University for the return of unearned tuition and fees or other refundable portions of institutional charges is available from the University Cashiers Office, Student Services, Room 2620, 619-594-5253, or at <http://www.sdsu.edu/cashiers>.

Information concerning policies regarding the return of federal Title IV student assistance funds as required by regulation is available from the Office of Financial Aid and Scholarships, Student Services, Room 3605, 619-594-6323, or at <http://www.sdsu.edu/financialaid>.

Information regarding special facilities and services available to students with disabilities may be obtained from Disabled Student Services, Student Services, Room 1661, 619-594-1991, or at <http://www.sdsu.edu/dss>.

Information concerning San Diego State University policies, procedures, and facilities for students and others to report criminal actions or other emergencies occurring on campus may be obtained from Public Safety, Student Services, Room 1410, 619-594-1991, or at <http://www.police.sdsu.edu>.

Information concerning San Diego State University annual campus security report may be obtained from Public Safety, Student Services, Room 1410, 619-594-1991, or at <http://www.police.sdsu.edu>.

Information concerning the prevention of drug and alcohol abuse and rehabilitation programs may be obtained from Counseling and Psychological Services, Student Services, Room 2109, 619-594-5220, or at <http://www.sa.sdsu.edu/cps>.

Information regarding student retention and graduation rates of students enrolled at San Diego State University and, if available, the number and percentage of students completing the program in which the student is enrolled or expresses interest may be obtained from Analytical Studies and Institutional Research, Student Services, Room 3630, 619-594-6846, or at <http://asir.sdsu.edu>.

Information concerning athletic opportunities available to male and female students and the financial resources and personnel that San Diego State University dedicates to its men's and women's teams may be obtained from the director of Intercollegiate Athletics, Aztec Athletics Center, Room 3015, 619-594-6357, or at <http://www.goaztecs.com>.

Information concerning teacher preparation programs at San Diego State University, including pass rate on teacher certification examinations, may be obtained from the Office of Advising and Recruitment, Business Administration, Room 259, 619-594-6320.

Information concerning grievance procedures for students who feel aggrieved in their relationships with the university, its policies, practices and procedures, or its faculty and staff may be obtained from the ombudsmen, Student Services, Room 1105, 619-594-6578, or at <http://www.sa.sdsu.edu/ombuds>.

The federal Military Selective Service Act (the "Act") requires most males residing in the United States to present themselves for registration with the Selective Service System within thirty days of their eighteenth birthday. Most males between the ages of 18 and 25 must be registered. Males born after December 31, 1959, may be required to submit a statement of compliance with the Act and regulations in order to receive any grant, loan, or work assistance under specified provisions of existing federal law. In California, students subject to the Act who fail to register are also ineligible to receive any need-based student grants funded by the state or a public postsecondary institution.

Selective Service registration forms are available at any U.S. Post Office, and many high schools have a staff member or teacher appointed as a Selective Service Registrar. Applicants for financial aid can also request that information provided on the Free Application for Federal Student Aid (FAFSA) be used to register them with the Selective Service. Information on the Selective Service System is available and the registration process may be initiated online at <http://www.sss.gov>.

Career Placement

Career Services may furnish, upon request, information about the employment of students who graduate from programs or courses of study preparing students for a particular career field. This information includes data concerning the average starting salary and the percentage of previously enrolled students who obtained employment. The information may include data collected from either graduates of the campus or graduates of all campuses in the California State University system. Information is available at <http://career.sdsu.edu>.

Faculty Office Hours

All faculty members are required to hold regularly scheduled office hours during the week to allow for student consultation. A schedule of those hours is posted outside each faculty member's office door.

Accreditation

San Diego State University is accredited by the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges, 985 Atlantic Avenue, Suite 100, Alameda CA 94501 510-748-9001; FAX 510-748-9797; E-mail: wascsr@wasc-senior.org; <http://www.wascweb.org>. It is also approved to train veterans under the G.I. Bill.

San Diego State University's programmatic accreditation is through membership in the following associations:

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, <http://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

Western Association of Graduate Schools
University of Washington, The Graduate School
Box 351240
Seattle, WA 98195-1240
206-543-9054

In addition, San Diego State University is accredited by the following agencies:

The College of Business Administration and the School of Accountancy are accredited by **AACSB International—The Association to Advance Collegiate Schools of Business**—at both the undergraduate and graduate levels. Several College of Business Administration programs are registered with the Certified Financial Planner Board of Standards, 1700 Broadway, Suite 2100, Denver, CO 80290-2101, 303-830-7500.

The College of Engineering undergraduate programs in aerospace, 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, 410-347-7700.

The Didactic Program in Dietetics and the Preprofessional Practice Program in Dietetics in the Department of Exercise and Nutritional Sciences are approved by the American Dietetic Association, P.O. Box 97215, Chicago, IL 60678-7215, 312-899-0040.

Undergraduate programs in Athletic Training and Kinesiotherapy, in the Department of Exercise and Nutritional Sciences are accredited by the Commission on Accreditation of Allied Health Education Programs, 335 East Wacker Drive, Suite 1970, Chicago, IL, 312-553-9355, caahep@mls.net.

Degrees and Certificates

San Diego State University offers the following degrees and certificates:

- Bachelor of Arts
- Bachelor of Fine Arts (Dance)
- Bachelor of Science
- Bachelor of Music
- Bachelor of Vocational Education
- Master of Arts
- Master of Science
- Master of Business Administration
- Master of Business Administration and Juris Doctor
- Master of City Planning
- Master of Fine Arts (Art, Creative Writing, Theatre Arts)
- Master of Music
- Master of Public Administration
- Master of Public Health
- Master of Social Work
- Master of Social Work and Juris Doctor
- Master of Social Work and Master of Public Health
- Doctor of Audiology
- Doctor of Education
- Doctor of Philosophy

Nondegree programs leading to certificates are offered in Accounting, Applied Gerontology, Applied Linguistics and English as a Second Language (ESL), Art (Imperial Valley Campus only), Artist Diploma, 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), Cultural and Community Trauma Studies, Developing Gifted Potential, Distance Education, Early Childhood Special Education, Early Intervention, Environmental Studies, Exercise Leadership, Family Life Education, Geographic Information Science, Instructional Software Design, Human Services Paraprofessional, Instructional Technology, Mathematics Specialist, Personal Financial Planning, Preventative Medicine Residency, Public Administration (Imperial Valley Campus only), Rehabilitation Administration, Rehabilitation Technology, Regulatory Affairs, Single Subject Mathematics, Spanish Court Interpreting (Imperial Valley Campus only), Spanish Translation Studies, Supported Employment and Transition Specialist, Technical and Scientific Writing, Transborder Public Administration and Governance, United States-Mexico Border Studies, and Workforce Education and Lifelong Learning.

Types of Curricula Offered

San Diego State University offers the following types of curricula:

Undergraduate Curricula. Undergraduate curricula provide the following opportunities for study:

(1) **Liberal arts and sciences:** Curricula in the academic major fields, leading to the Bachelor of Arts degree in liberal arts and sciences.

(2) **Applied arts and sciences:** Curricula in major fields leading to the Bachelor of Science, Bachelor of Arts, Bachelor of Fine Arts in Dance, or Bachelor of Music degree in applied arts and sciences.

(3) **Professional curricula:** The College of Business Administration offers the Bachelor of Science degree in business administration with majors in seven fields; the College of Engineering offers the Bachelor of Science degree in engineering with majors in 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, pre dental, pre legal, pre medical, 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 Audiology in audiology, 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 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 system-wide 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 multi-purpose institutions, offer undergraduate and graduate instruction for professional and occupational goals as well as broad liberal education. All the campuses require for graduation a basic program of "General Education Requirements" regardless of the type of bachelor's degree or major field selected by the student.

The CSU offers more than 1,800 bachelor's and master's degree programs in some 240 subject areas. Many of these programs are offered so that students can complete all upper division and graduate requirements by part-time, late afternoon, and evening study. In addition, a variety of teaching and school service credential programs are available. A number of doctoral degrees are offered jointly with the University of California and with private institutions in California.

Enrollments in fall 2004 totaled 397,000 students, who were taught by some 21,000 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 Support Cost Per Full-time Equivalent Student and Sources of Funds

The total support cost per full-time equivalent student includes the expenditures for current operations, including payments made to students in the form of financial aid, and all fully reimbursed programs contained in state appropriations. The average support cost is determined by dividing the total cost by the number of full-time equivalent students (FTES). The total CSU 2004/05 final budget amounts were \$2,447,958,000 from state General Fund appropriations (not including capital outlay funding), \$902,669,000 from State University Fee Revenue, \$208,629,000 from other fee revenues, and \$184,709,000 from reimbursements for a total of \$3,743,965,000. The number of projected 2004/05 full-time equivalent students (FTES) is 324,120. 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 2004/05 average support cost per full-time equivalent student based on General Fund appropriation and State University Fee revenue only is \$10,338 and when including all sources as indicated below is \$11,433. Of this amount, the average student fee support per FTE is \$2,985, which includes all fee revenue in the state higher education fund (e.g. State University Fee, nonresident tuition, application fees, miscellaneous course fees).

2004/05	Amount	Average Cost Per FTE	
		Student	Percentage
Total Support Cost	\$3,743,965,000	\$11,433	100%
—State Appropriation	2,447,958,000	7,553	65%
—Student Fee Support*	1,111,298,000	2,985	30%
—Reimbursements	184,709,000	545	5%

* Student fee support represents fee revenue deposited in the State Treasury/state higher education fund. The average CSU 2004/05 academic year, resident, undergraduate student fees required to apply to, enroll in, or attend the university is \$2,916. However, the costs paid by individual students will vary depending on campus, program, and whether a student is part-time, full-time, resident, or nonresident.

Trustees of The California State University

Ex Officio Trustees

The Honorable Arnold Schwarzenegger State Capitol
Governor of California Sacramento 95814

The Honorable Cruz Bustamante State Capitol
Lieutenant Governor of California Sacramento 95814

The Honorable Fabian Núñez 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 Long Beach 90802-4210
The California State University

Officers of the Trustees

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Murray Galinson	Christine Helwick
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Richard P. West	
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. Names are listed alphabetically.

Roberta Achtenberg (2007)
Larry Adamson (2005)
Jeffrey Bleich (2010)
Herbert L. Carter (2011)
Carol Chandler (2012)
Moctesuma Esparza (2008)
Debra S. Farar (2006)
Robert Foster (2006)
Murray L. Galinson (2007)
George Gowgani (2010)
Eric Guerra (2005)
William Hauck (2009)
Raymond W. Holdsworth Jr. (2011)
Ricardo F. Icaza (2008)
Corey A. Jackson (2006)
Kathleen Kaiser (2005)
Shailesh J. Mehta (2005)
Melina Guzman Moore (2012)
Kyriakos Tsakopoulos (2009)
Anthony M. Vitti (2005)

Correspondence with Trustees should be sent:

c/o Trustees Secretariat
The California State University
401 Golden Shore
Long Beach, CA 90802-4210

Office of the Chancellor The California State University

401 Golden Shore
Long Beach, CA 90802-4210
Telephone: (562) 951-4000

Dr. Charles B. Reed Chancellor—CSU System

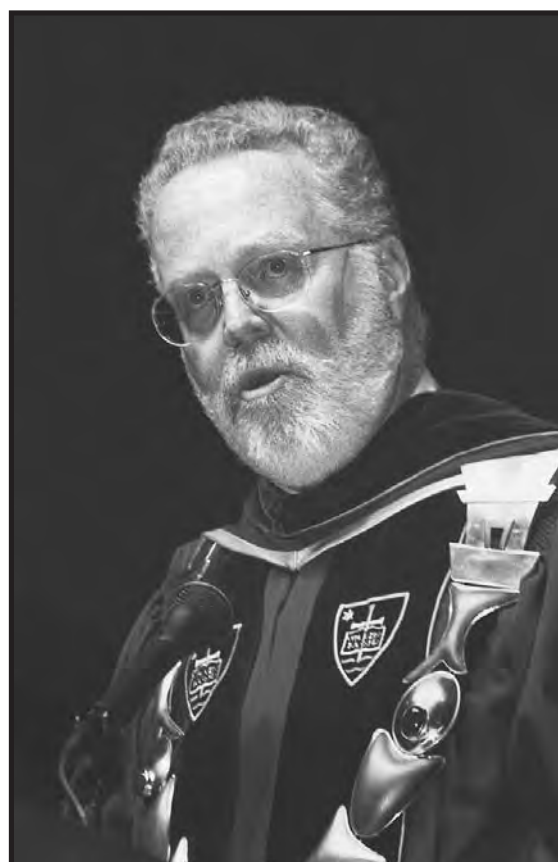
Dr. David S. Spence Executive Vice Chancellor and
Chief Academic Officer

Mr. Richard P. West Executive Vice Chancellor and
Chief Financial Officer

Ms. Jackie McClain Vice Chancellor, Human Resources

Dr. Keith Boyum Associate Vice Chancellor, Academic Affairs

Ms. Christine Helwick General Counsel

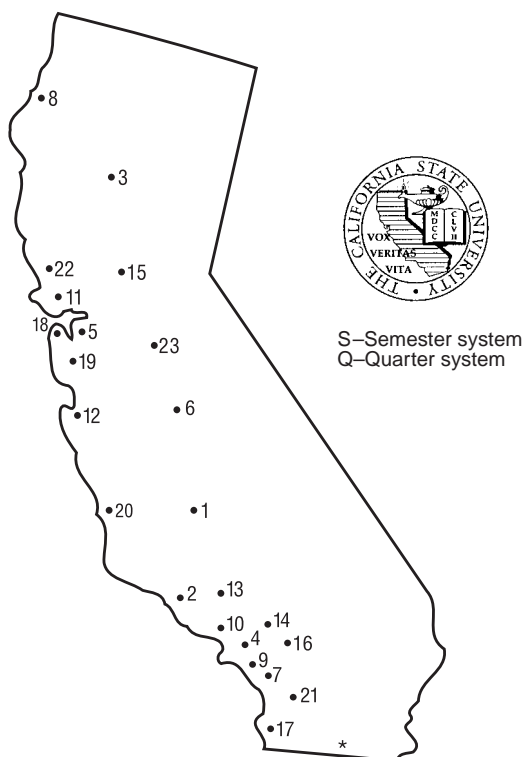


The California State University

CSU Campus Locations

A world of information is just a click away.

Check out the admission Web site for the entire California State University: <http://www.csumentor.edu>. You will find helpful hints, frequently asked questions, campus tours, and general information about all 23 campuses.



1 CALIFORNIA STATE UNIVERSITY, BAKERSFIELD • Q
9001 Stockdale Highway, Bakersfield, CA 93311-1099
Dr. Horace Mitchell, President
661-664-3036 • www.csusb.edu

2 CALIFORNIA STATE UNIVERSITY, CHANNEL ISLANDS • S
One University Drive, Camarillo, CA 93012
Dr. Richard R. Rush, President
805-437-8500 • www.csuci.edu

3 CALIFORNIA STATE UNIVERSITY, CHICO • S
400 West First Street, Chico, CA 95929-0722
Dr. Paul J. Zingg, President
530-898-6321 • www.csuchico.edu

4 CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS • S
1000 East Victoria Street, Carson, CA 90747
Dr. James E. Lyons Sr., President
310-243-3696 • www.csudh.edu

5 CALIFORNIA STATE UNIVERSITY, EAST BAY • Q
25800 Carlos Bee Boulevard, Hayward, CA 94542-3035
Dr. Norma S. Rees, President
510-885-2624 • www.csueastbay.edu

6 CALIFORNIA STATE UNIVERSITY, FRESNO • S
5150 North Maple Avenue, Fresno, CA 93740-0057
Dr. John D. Welty, President
559-278-2261 • www.csufresno.edu

7 CALIFORNIA STATE UNIVERSITY, FULLERTON • S
800 N. State College Boulevard, Fullerton, CA 92834-9480
Dr. Milton A. Gordon, President
714-278-2300 • www.fullerton.edu

8 HUMBOLDT STATE UNIVERSITY • S
One Harpst Street, Arcata, CA 95521-4957
Dr. Rollin C. Richmond, President
707-826-4402, 866-850-9556 • www.humboldt.edu

9 CALIFORNIA STATE UNIVERSITY, LONG BEACH • S
1250 Bellflower Boulevard, Long Beach, CA 90840-0106
Dr. Robert C. Maxson, President
562-985-5471 • www.csulb.edu

10 CALIFORNIA STATE UNIVERSITY, LOS ANGELES • Q
5151 State University Drive, Los Angeles, CA 90032-8530
Dr. James M. Rosser, President
323-343-3901 • www.calstatela.edu

11 CALIFORNIA MARITIME ACADEMY • S
200 Maritime Academy Drive, Vallejo, CA 94590
Dr. William B. Eisenhardt, President
800-561-1945 • www.csum.edu

12 CALIFORNIA STATE UNIVERSITY, MONTEREY BAY • S
100 Campus Center, Seaside, CA 93955-8001
Dr. Peter P. Smith, President
831-582-3518 • www.csUMB.edu

13 CALIFORNIA STATE UNIVERSITY, NORTHRIDGE • S
18111 Nordhoff Street, Northridge, CA 91330-8207
Dr. Jolene Koester, President
818-677-3700 • www.csun.edu

14 CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA • Q
3801 West Temple Avenue, Pomona, CA 91768-4003
Dr. J. Michael Ortiz, President
909-869-3210 • www.csupomona.edu

15 CALIFORNIA STATE UNIVERSITY, SACRAMENTO • S
6000 J Street, Sacramento, CA 95819-6048
Dr. Alexander Gonzalez, President
916-278-3901 • www.csus.edu

16 CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO • Q
5500 University Parkway, San Bernardino, CA 92407-2397
Dr. Albert K. Karnig, President
909-880-5188 • www.csusb.edu

17 SAN DIEGO STATE UNIVERSITY • S
5500 Campanile Drive, San Diego, CA 92182-7455
Dr. Stephen L. Weber, President
619-594-6336 • www.sdsu.edu

*IMPERIAL VALLEY CAMPUS
720 Heber Avenue, Calexico, CA 92231
760-768-5500 • www.ivcampus.sdsu.edu

18 SAN FRANCISCO STATE UNIVERSITY • S
1600 Holloway Avenue, San Francisco, CA 94132-4002
Dr. Robert A. Corrigan, President
415-338-1113 • www.sfsu.edu

19 SAN JOSÉ STATE UNIVERSITY • S
One Washington Square, San Jose, CA 95192-0009
Mr. Don Kassing, Interim President
408-283-7500 • www.sjsu.edu

20 CALIFORNIA POLYTECHNIC STATE UNIVERSITY, SAN LUIS OBISPO • Q
One Grand Avenue, San Luis Obispo, CA 93407
Dr. Warren J. Baker, President
805-756-2311 • www.calpoly.edu

21 CALIFORNIA STATE UNIVERSITY, SAN MARCOS • S
333 S. Twin Oaks Valley Road, San Marcos, CA 92096-0001
Dr. Karen S. Haynes, President
760-750-4848 • www.csusm.edu

22 SONOMA STATE UNIVERSITY • S
1801 East Cotati Avenue, Rohnert Park, CA 94928
Dr. Ruben Armiñana, President
707-664-2778 • www.sonoma.edu

23 CALIFORNIA STATE UNIVERSITY, STANISLAUS • 4-1-4
801 West Monte Vista Avenue, Turlock, CA 95382-0299
Dr. Hamid Shirvani, President
209-667-3152 • www.csustan.edu

Note: Telephone numbers are to the campus admission office.

Faculty and Administration 2004–2005

- Weber, Stephen L. (1996)** *President, Professor of Philosophy*
B.A., Bowling Green State University; Ph.D., University of Notre Dame.
- Abdel-Nour, Farid (2000)** *Associate Professor of Political Science*
B.S., Ph.D., Rutgers, The State University of New Jersey.
- Adams, Brian E. (2003)** *Assistant Professor of Political Science*
B.A., University of Southern California; M.A., Ph.D., University of California, Irvine.
- Addo, Theophilus (1987)** *Associate Professor of Information and Decision Systems*
B.Sc., University of Ghana; M.S.T.M., American University, Washington, D.C.; M.B.A., Ph.D., Indiana University, Bloomington.
- Adler, Renatte K. (1982)** *Professor of Economics*
B.A., Ph.D., University of New Mexico.
- Aguado, Edward (1982)** *Professor of Geography*
B.A., M.A., University of California, Los Angeles; Ph.D., University of Wisconsin.
- Aguilar, Isabel (1972)** *Director, Outreach and Career Counseling, Imperial Valley Campus*
A.B., M.S., San Diego State University.
- Ainsworth, Barbara E. (2003)** *Professor of Exercise and Nutritional Sciences*
B.A., California State University, Fresno; M.A., M.P.H., Ph.D., University of Minnesota.
- 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)** *Professor of Geography*
B.Sc., Glasgow University; M.A., Miami University; Ph.D., University of Western Ontario.
- Alcaraz, John E. (1993)** *Associate Professor of Public Health*
B.A., M.A., Ph.D., University of California, San Diego.
- Alcosser, Sandra B. (1986)** *Professor of English*
B.A., Purdue University; M.F.A., University of Montana.
- Alexseev, Mikhail A. (2000)** *Associate Professor of Political Science*
B.A., M.A., Kiev State University; Ph.D., University of Washington.
- Alfaro, Cristina (2004)** *Assistant Professor of Policy Studies in Language and Cross-Cultural Education*
B.A., M.A., San Diego State University; Ph.D., Claremont Graduate University and San Diego State University.
- Alfonso-Reese, Leola A. (1999)** *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.
- Allison, Alida L. (1990)** *Professor of English and Comparative Literature*
B.A., M.A., San Diego State University; Ph.D., University of California, Riverside.
- Alvarado, Elizabeth R. (1974)** *Counselor, Educational Opportunity and Ethnic Affairs*
A.B., California State University, Northridge; M.S., San Diego State University.
- Alvarado, José L. (1999)** *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.
- Amtower, Laurel (1997)** *Professor of English*
B.A., University of California, Irvine; M.A., Ph.D., University of Washington.
- Amuedo-Dorantes, Catalina (1999)** *Associate Professor of Economics*
B.A., University of Sevilla, Spain; M.A., Ph.D., Western Michigan University.
- Andersen, Janis F. (1981)** *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)** *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, Brian D. (2004)** *Assistant Professor of Military Science*
B.A., San Diego State University.
- Anderson, Gwenievere W. (2003)** *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)** *Professor of Accountancy*
B.B.A., M.S., University of Missouri; Ph.D., University of Tennessee.
- Anderson, Matthew E. (2000)** *Assistant Professor of Physics*
B.S., University of California, San Diego; Ph.D., University of Oregon.
- Anderson, Todd W. (1999)** *Assistant Professor of Biology*
B.S., M.A., California State University, Fresno; Ph.D., University of California, Santa Barbara.
- Angelelli, Claudia V. (2001)** *Associate Professor of Spanish*
B.A., Universidad Católica Argentina; M.A., Monterey Institute of International Studies; Ph.D., Stanford University.
- Appleton-Knapp, Sara L. (2002)** *Assistant Professor of Marketing*
B.A., University of California, Irvine; M.S., Ph.D., University of California, Los Angeles.
- Archibald, J. David (1983)** *Professor of Biology*
B.S., Kent State University; Ph.D., University of California, Berkeley.
- Arellano, Julian D. (2003)** *Assistant Professor of Naval Science*
B.S., San Diego State University.
- Arenas-Mena, Cesar (2002)** *Assistant Professor of Biology*
B.A., Universidad de Alcalá de Henares; Ph.D., Instituto de Biología 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)** *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)** *Associate Dean for Faculty Affairs, College of Sciences; Professor of Psychology*
A.B., M.S., San Diego State University; Ph.D., University of California, Riverside.
- Aufesser, 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.
- Avery, Cynthia M. (2000)** *Director, Residential Education*
B.A., State University of New York at Geneseo; M.S.Ed., Alfred University.
- Baber, Carolyn D. (1987)** *Associate Librarian*
B.S., Illinois State University; M.S., University of Illinois at Urbana-Champaign.
- Badrinath, Swaminathan G. (2000)** *Professor of Finance*
B.A., M.A., Delhi University; M.B.A., Indian Institute of Management; Ph.D., Purdue University.
- Badrihya, Badri (2000)** *Assistant Professor of Civil and Environmental Engineering*
B.S., M.S., University of Baghdad, Iraq; Ph.D., University of Southern California. Registered Professional Engineer.
- Baer, Susan E. (2001)** *Assistant Professor of Public Administration and Urban Studies*
B.S., B.A., Shippensburg University; M.A., Ph.D., University of Maryland.
- Bailey, Allan R. (1968)** *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)** 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)** 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)** Professor of Accountancy
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)** Associate Professor of Social Work
B.A., Loyola Marymount University; M.S.W., Ph.D., University of Southern California.
- 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)** Professor of Civil and Environmental Engineering
B.S., Damascus University, Syria; M.S., South Dakota State University; M.S., Ph.D., Michigan State University. Registered Professional Engineer.
- Beach, Wayne A. (1984)** Professor of Communication
B.A., Drake University; M.A., University of Montana; Ph.D., University of Utah.
- Beatty, James R. (1973)** Professor of Information and Decision Systems
A.B., Franklin College; M.S., Indiana State University; Ph.D., University of Northern Colorado.
- Beck, Lawrence A. (1982, except F'85-S'86)** Professor of Recreation, Parks and Tourism
B.S., Humboldt State University; M.A., Azusa Pacific University; Ph.D., University of Minnesota.
- Beck, Leland L. (1980)** Professor of Computer Science
A.B., Rice University; M.A.S., Ph.D., Southern Methodist University.
- Beighley, R. Edward, II (2004)** Assistant Professor of Civil and Environmental Engineering
B.S., M.S., Pennsylvania State University; Ph.D., University of Maryland.
- 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.
- Belch, George E. (1980)** Professor of Marketing
B.S., Pennsylvania State University; M.S., University of Colorado; Ph.D., 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
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- Dunster, T. Marc (1988)**..... *Professor of Mathematics*
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- Liang, Hong-Chang (2001)** Assistant Professor of Chemistry and Biochemistry
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- Lichtenstein, Gregg A. (1984)** Director, Clinical Services;
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- Liebowitz, Marian (1984)** Professor of Music
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- Lin, Chii-Dean (1999)** Assistant Professor of Statistics
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- Little, Sherry B. (1982)** *Professor of English*
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- Liu, Ruth Xiaoru (1997)** *Associate Professor of Sociology*
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- Livingston, Nancy M. (1982)** *Lecturer in Teacher Education, Imperial Valley Campus*
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- Logan, Jack D. (1969)** *Professor of Music*
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- Long, Linda M. (1985)** *Lecturer in Nursing*
B.S.N., M.S.N., California State University, Los Angeles.
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- Love, John J. (2001)** *Assistant Professor of Chemistry and Biochemistry*
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- Loveman, Brian E. (1973)** *Professor of Political Science*
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- Lui, Kung-Jong (1990)** *Professor of Statistics*
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- Martin, John E. (1986)** *Professor of Psychology*
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- Metzger, Robert P. (1968)** *Professor of Chemistry and Biochemistry*
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- Moore, Robert (1968)** *Professor of Exercise and Nutritional Sciences*
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- Morrison, Jeff (2001)** *Assistant Professor of Theatre, Television, and Film*
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- Mueller, Barbara (1987)** *Professor of Communication*
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- Murphy, Claire (1984)** *Professor of Psychology*
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- Narang, Balbir S. (1968)** *Professor of Aerospace Engineering and Engineering Mechanics*
B.S., M.S., Ph.D., University of Illinois.
- Naughton, Gail (2002)** *Dean, College of Business Administration; Professor of Management*
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- Neal, Kathryn (2002)** *Senior Assistant Librarian*
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- Nelson, Kerry A. (1988)** *Professor of Art, Design and Art History*
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- Nericcio, William A. (1991)** *Associate Professor of English and Comparative Literature*
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- Nesbitt, Francis N. (2000)** *Associate Professor of Africana Studies*
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- Newhoff, Marilyn (2001)** *Dean, College of Health and Human Services; Professor of Speech, Language, and Hearing Sciences*
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- Nickerson, Susan D. (2002)** *Assistant Professor of Mathematics*
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- Nieto, Jesus (1989)** *Associate Professor of Teacher Education*
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- Nosseir, Nagy (1983)** *Professor of Aerospace Engineering and Engineering Mechanics*
B.S., M.S., Cairo University; M.A., University of Toronto; Ph.D., University of Southern California.
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Full-Time Faculty

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- O'Donnell, Terry L. (1975)** *Professor of Music and Theatre, Television, and Film*
A.B., M.A., San Diego State University; D.M.A., University of Arizona.
- Oechel, Walter C. (1978)** *Professor of Biology*
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- Oestreich, Nathan A. (1985)** *Professor of Accountancy*
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- Ojeda, Norma (1999)** *Associate Professor of Sociology and Chicana and Chicano Studies*
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- O'Leary, John F. (1985)** *Professor of Geography*
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- Olevsky, Eugene A. (1998)** *Associate Professor of Mechanical Engineering*
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- Olschofka, Felix (2003)** *Assistant Professor of Music*
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- Ornatowski, Cezar M. (1992)** *Associate Professor of Rhetoric and Writing Studies*
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- Ponce, Gregorio A. (2002)** *Assistant Professor of Teacher Education, Imperial Valley Campus*
B.A., M.A., University of California, San Diego; Ed.D., University of San Diego.
- Ponce, Victor M. (1980)** *Professor of Civil and Environmental Engineering*
B.S., National University of Engineering, Peru; M.S., Ph.D., Colorado State University.
- Poole, Deborah (1989)** *Associate Professor of Rhetoric and Writing Studies and Linguistics*
B.A., Emory University; M.A., Ph.D., University of Southern California.
- Powell, Timothy A. (2003)** *Assistant Professor of Theatre, Television, and Film*
B.A., M.A., Loyola Marymount University; Ph.D., Capella University.
- Pozos, Robert S. (1994)** *Professor of Biology*
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- Price, Joseph M. (1989)** *Professor of Psychology*
B.A., Rockmont College; M.A., University of Colorado; Ph.D., Purdue University.
- Price, Judy M. (1972)** *Associate Professor of Psychology*
A.B., Stanford University; M.A., Ph.D., Columbia University.
- Prislin, Radmila (1996)** *Professor of Psychology*
B.A., M.Sc., Ph.D., University of Zagreb.
- Puerto, Cecilia (1994)** *Librarian*
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- Pugh, Darrell L. (1981)** *Professor of Public Administration and Urban Studies*
B.A., M.P.A., San Diego State University; Ph.D., University of Southern California.
- Pukthuanthong, Kuntara (2003)** *Assistant Professor of Finance*
B.E., Chulalongkorn University, Thailand; M.B.A., Washington University; Ph.D., University of California, Irvine.
- Pullman, David P. (1994)** *Associate Professor of Chemistry and Biochemistry*
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- Pumpian, Ian R. (1976)** *Professor of Educational Leadership*
B.S., M.S., Ph.D., University of Wisconsin.
- Putman, John C. (1994)** *Assistant Professor of History*
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- Puttitanun, Thitima (2003)** *Assistant Professor of Economics*
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- Quandahl, Ellen (1994)** *Associate Professor of Rhetoric and Writing Studies*
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- Quintana, P.J.E. (Jenny) (1995)** *Associate Professor of Public Health*
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- Raafat, Feraidoon (1986)** *Professor of Information and Decision Systems*
B.S., Phillips University; B.S., M.I.E., Ph.D., Oklahoma State University.
- Rahiotis, Miguel (1984)** *Counselor, Imperial Valley Campus*
A.B., M.S., San Diego State University.
- Ramirez-Pimienta, Juan C. (2003)** *Assistant Professor of Spanish, Imperial Valley Campus*
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- Rankin, Richard A. (2003)** *Professor of Aerospace Studies*
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- Rasmussen, Chris L. (2004)** *Associate Professor of Mathematics*
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- Rasmussen, Lucinda A. (1995)** *Associate Professor of Social Work*
B.S., Brigham Young University; M.S.W., Ph.D., University of Utah.
- Rea, Louis M. (1975)** *Professor of Public Administration and Urban Studies*
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- Reardon, Megan E. (2003)** *Assistant Professor of Naval Science*
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- Reed, Richard C. (1984)** *Assistant Dean for Student Affairs, College of Health and Human Services; Associate Professor of Nursing*
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- Reed, Stephen K. (1988)** *Professor of Psychology*
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- Reeder, Tod W. (1996)** *Associate Professor of Biology*
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- Regan, Helen (2002)** *Assistant Professor of Biology*
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- Reid, W. Nick (1983)** *Professor of Theatre, Television, and Film*
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- Reilly, Judy S. (1986)** *Professor of Psychology*
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- Reinholz, Randy (1997)** *Professor of Theatre, Television, and Film*
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- Reinig, Bruce A. (2000)** *Associate Professor of Information and Decision Systems*
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- Rey, Sergio J., Jr. (1992)** *Professor of Geography*
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- Reyes, Rogelio (1986)** *Professor of Linguistics, Imperial Valley Campus*
B.A., Mexico City College; Ph.D., Harvard University.
- Rhodes, Gloria L. (2002)** *Associate Librarian*
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- Rhyne, Lawrence C. (1987)** *Associate Professor of Management*
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- Rideout, Kent R. (2005)** *Professor of Military Science*
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- Riggs, Eric M. (2000)** *Assistant Professor of Geological Sciences*
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- Rikard, Jennifer (2001)** *Therapist, Counseling and Psychological Services*
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- Riley, Edward P. (1988)** *Professor of Psychology*
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- Ritchie, Donn C. (1990)** *Professor of Educational Technology*
B.S., University of Akron; M.S., University of Wyoming; Ph.D., Utah State University.
- Rivera, Eric Mario (1997)** *Assistant Vice President for Student Affairs Administration*
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- Roberts, Thomas W. (1999)** *Professor of Child and Family Development*
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- Roberts-Fields, Gail C. (1976)** *Professor of Art, Design and Art History*
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- Robin, Donald A. (1999)** *Professor of Speech, Language, and Hearing Sciences*
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- Robinson-Zañartu, Carol A. (1980)** *Professor of Counseling and School Psychology*
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- Rockwell, Thomas K. (1983)** *Professor of Geological Sciences*
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- Rodriguez, Alberto J. (2002)** *Associate Professor of Policy Studies in Language and Cross-Cultural Education*
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- Roesch, Scott C. (2002)** *Assistant Professor of Psychology*
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- Rogers, Clarke (2003)** *Assistant Professor of Military Science*
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- Rohwer, Forest (2003)** *Assistant Professor of Biology*
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- Ross, John B. (1995)** *Director of Information Systems and Technology, Library*
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- Ross, Pamela J. (1977)** *Professor of Teacher Education*
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- Rossett, Allison (1977)** *Professor of Educational Technology*
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- Roush, Sally F. (1982)** *Vice President for Business and Financial Affairs*
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- Roy, Debaleena (2002)** *Assistant Professor of Women's Studies*
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- Russell, Cristel A. (2000)** *Associate Professor of Marketing*
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- Ryan, Lori V. (2001)** *Associate Professor of Management*
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- Ryan, Richard W. (1982)** *Professor of Public Administration and Urban Studies, Imperial Valley Campus*
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- Saccuzzo, Dennis P. (1975)** *Professor of Psychology*
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- Samraj, Betty T.R. (1997)** *Associate Professor of Linguistics*
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- Sandback, Patricia R. (1974)** *Professor of Dance*
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- Sandquist, Eric L. (1999)** *Associate Professor of Astronomy*
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- Santa Cruz, Rafaela M. (1980)** *Associate Professor of Teacher Education*
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- Sargent, Paul W. (1994)** *Associate Professor of Sociology*
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- Sasidharan, Vinod (2001)** *Assistant Professor of Recreation, Parks and Tourism*
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- Savage, Stephen M. (2003)** *Associate Librarian*
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- Sax, Caren L. (1991)** *Associate Professor of Administration, Rehabilitation and Postsecondary Education*
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- Schellenberg, Stephen A. (2002)** *Assistant Professor of Geological Sciences*
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- Schmidt, Heike I. (2002)** *Assistant Professor of History*
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- Schorr, James L. (1983)** *Professor of French*
B.A., M.A., Ph.D., University of Texas at Austin.
- Schreiber, Loren P. (1994)** *Professor of Theatre, Television, and Film*
B.A., M.A., Louisiana State University; M.F.A., San Diego State University.
- Schreiber, Ronnee D. (2002)** *Assistant Professor of Political Science*
B.A., University of Pennsylvania; M.A., George Washington University; Ph.D., Rutgers, The State University of New Jersey.
- Sciglimpaglia, Donald (1977)** *Professor of Marketing*
B.S.I.E., University of Florida; M.S., University of West Florida; D.B.A., University of Colorado, Boulder.
- Scott, Bonnie K. (2001)** *Professor of Women's Studies*
B.A., Wellesley College; M.A., Ph.D., University of North Carolina at Chapel Hill.
- Scott, Thomas R. (2000)** *Dean, College of Sciences; Professor of Psychology*
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- Segall, Anca Mara (1994)** *Professor of Biology*
B.S., University of Maryland; Ph.D., University of Utah.
- Seidman, Robert L. (1981)** *Associate Professor of Public Health*
A.B., San Diego State University; M.A., Ph.D., Johns Hopkins University.
- Senour, Maria Nieto (1977)** *Professor of Counseling and School Psychology*
A.B., Mangrove College; M.Ed., University of Toledo; Ph.D., Wayne State University.
- Seshagiri, Sridhar (2003)** *Assistant Professor of Electrical and Computer Engineering*
B.Tech., Indian Institute of Technology; M.S.E.E., Ph.D., Michigan State University.
- Sha, Bey-Ling (2004)** *Assistant Professor of Communication*
B.A., Purdue University; M.A., Ph.D., University of Maryland, College Park.
- Shaffer, Richard A. (2000)** *Associate Professor of Public Health*
B.A., Jacksonville University; M.P.H., Ph.D., University of South Carolina.
- Shaffer, Allen W. (1989)** *Professor of Astronomy*
B.A., University of California, Irvine; M.A., Ph.D., University of California, Los Angeles.
- Shapiro, Lewis P. (1995)** *Professor of Speech, Language, and Hearing Sciences*
B.A., University of Florida; M.A., Memphis State University; Ph.D., Brandeis University.
- Shapovalov, Veronica (1988)** *Professor of Russian*
Diploma, Leningrad State University; M.A., Sangamon State University; Ph.D., University of Illinois at Urbana-Champaign.
- Shillington, Audrey M. (1997)** *Professor of Social Work*
B.A., Drury College; M.S.W., M.P.E., Ph.D., Washington University.
- Shin, Bongsik (1999)** *Associate Professor of Information and Decision Systems*
B.A., Sogang University; M.S., Bernard M. Baruch College, The City University of New York; Ph.D., University of Arizona.

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B.A., Macalester College; M.P.A., San Diego State University.
- Shore, Lynn M. (2004)** *Professor of Management*
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- Shu, Wesley Szu-Way (2000)** *Assistant Professor of Information and Decision Systems*
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- Shumaker, Jeanette (1992)** *Professor of English, Imperial Valley Campus*
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- Simas, Rick A. (1992)** *Lecturer in Theatre, Television, and Film*
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- Simmons, Roger (1976)** *Professor of Exercise and Nutritional Sciences*
M.S., University of Wyoming; Ph.D., University of Iowa.
- Simpson, Michael G. (1986)** *Professor of Biology*
B.S., University of Florida; M.S., University of North Carolina; Ph.D., Duke University.
- Sinclair, Todd M. (2003)** *Assistant Professor of Naval Science*
B.S., Marquette University.
- Singer, Ethan A. (1979)** *Associate Vice President for Academic Affairs; Professor of Business Administration and Public Administration and Urban Studies*
A.B., University of Connecticut; M.P.A., Ph.D., University of Southern California.
- Singh, Gangaram (1999)** *Professor of Management*
B.Comm., University of Windsor, Canada; M.B.A., M.I.R., Ph.D., University of Toronto.
- Siprut, Mark J. (1989)** *Associate Professor of Art, Design and Art History*
B.A., M.A., Humboldt State University; M.F.A., University of California, Santa Barbara.
- Skwara, Erich W. (1986)** *Professor of Humanities and German*
B.A., University of Linz; M.A., University of Salzburg; Ph.D., State University of New York at Albany.
- Slymen, Donald J. (1988)** *Professor of Public Health*
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- Smarandache, Roxana N. (2001)** *Assistant Professor of Mathematics*
B.S., University of Bucharest; M.S., Ph.D., University of Notre Dame.
- Smith, Diane K. (1990)** *Associate Professor of Chemistry and Biochemistry*
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- Smith, Jane K. (1968, except 1970)** *Assistant Vice President for Academic Services*
B.S., West Virginia University; M.A., Northwestern University; Ph.D., University of Southern California.
- Smith, Joseph A. (1997)** *Assistant Professor of Classics*
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- Smith, Julia A. (2004)** *Assistant Professor of Nursing*
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- Smith, Kathleen J. (1988)** *Lecturer in Social Work*
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- Smith, Linda D. (1996)** *Therapist, Counseling and Psychological Services*
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- Snyder, Willard S., Jr. (1984, except S'85)** *Lecturer in Accountancy*
B.S., M.B.A., University of Southern California.
- Song, Moon H. (1988)** *Professor of Finance*
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- Spevak, Joseph E. (1969)** *Assistant Professor of Communication*
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- Spindler, Audrey A. (1977)** *Professor of Exercise and Nutritional Sciences*
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- Spitzberg, Brian H. (1989)** *Professor of Communication*
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- Stampfl, Barry G. (1982)** *Associate Professor of English, Imperial Valley Campus*
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- Stampfl, Ronald W. (1988)** *Professor of Marketing*
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- Stauffer, Thomas David (1984)** *Professor of Music*
B.A., University of California, Riverside; M.M., Music Academy of Zagreb, Zagreb, Yugoslavia; M.A., University of California, Davis.
- Steffey, Duane L. (1988)** *Professor of Statistics*
B.S., M.S., Ph.D., Carnegie-Mellon University.
- Sterk, William E. (1978)** *Professor of Finance*
B.S.E., University of Michigan; M.B.A., Ph.D., University of Wisconsin.
- Stewart, Kris W. (1984)** *Professor of Computer Science*
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- Stock, Robert L. (1975)** *Associate Professor of Public Administration and Urban Studies*
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- Stover, Mark (1999)** *Associate Librarian*
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- Stow, Douglas A. (1983)** *Professor of Geography*
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- Strejilevich, Nora (2000)** *Assistant Professor of Spanish*
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- Stringfellow, Kim (2001)** *Assistant Professor of Art, Design and Art History*
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- Strom, David W. (1968)** *Professor of Teacher Education*
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- Sullivan, Patrick (2000)** *Associate Librarian*
B.A., California Polytechnic State University; M.L.I.S., San Jose State University.
- Sundaramurthy, Chamundeswari (2003)** *Associate Professor of Management*
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- Supernak, Janusz C. (1984)** *Professor of Civil and Environmental Engineering*
B.S., M.S., Ph.D., Technical University of Warsaw.
- Sussman, Mark A. (2002)** *Professor of Biology*
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- Sutton, L. Paul (1981)** *Professor of Public Administration and Urban Studies*
B.A., University of Kansas; M.A., Ph.D., State University of New York.
- Sweedler, Alan R. (1980)** *Assistant Vice President, International Programs; Professor of Physics*
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- Sweedler-Brown, Carol O. (1975)** *Professor of Rhetoric and Writing Studies*
B.A., University of Massachusetts at Amherst; Ph.D., University of California, San Diego.
- Sweeney, Nancy M. (1999)** *Assistant Professor of Nursing*
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- Swiniarski, Roman W. (1988)** *Professor of Computer Science*
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- Szeto, Andrew Y. J. (1983)** *Professor of Electrical and Computer Engineering*
B.S., University of California, Los Angeles; M.S.E.E., M.E.E.E., University of California, Berkeley; Ph.D., University of California, Los Angeles. Registered Professional Engineer.
- Tague, Christina (2000)** *Assistant Professor of Geography*
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- Talavera, Gregory A. (1994)** *Associate Professor of Public Health*
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- Tarokh, Mahmoud (1990)** *Professor of Computer Science*
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- Testa, Mark (2001)** *Associate Professor of Recreation, Parks and Tourism*
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- Thompson, Richard (2001)** *Assistant Professor of Music*
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- Thorbjarnarson, Kathryn W. (1991)** *Associate Professor of Geological Sciences*
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B.S., Mandalay University; Ph.D., Iowa State University.
- Toombs, Charles P. (1991)** *Associate Professor of Africana Studies*
B.A., M.A., M.S., Ph.D., Purdue University.
- Torikachvili, Milton S. (1987)** *Professor of Physics*
B.S., Rio Grande do Sul University, Brazil; M.S., Ph.D., Campinas State University, Brazil.
- Torre, Peter, III (2003)** *Assistant Professor of Speech, Language, and Hearing Sciences*
B.A., University of California, Santa Barbara; M.A., California State University, Long Beach; Ph.D., University of Wisconsin, Madison.
- Tran, My Luong (1981)** *Associate Professor of Teacher Education and Policy Studies in Language and Cross-Cultural Education*
B.A., Marymount College; M.A., Ph.D., Southern Illinois University.
- Tranhtien, Baoquoc (2003)** *Assistant Professor of Naval Science*
B.A., University of Washington; M.A., Naval Postgraduate School.
- Treadway, Gerald H., Jr. (1970)** *Professor of Teacher Education*
A.B., M.A., San Diego State University; Ed.D., University of Arizona.
- Tsou, Ming-Hsiang (2000)** *Assistant Professor of Geography*
B.S., National Taiwan University; M.A., State University of New York at Buffalo; Ph.D., University of Colorado.
- Tsoukas, Constantine (1986)** *Professor of Biology*
B.S., University of San Francisco; Ph.D., University of California, San Francisco.
- Tumlin, Markel D. (1998)** *Associate Librarian*
B.A., M.A., M.S.L.S., University of Kentucky.
- Tummala, R. Lal (2002)** *Professor of Electrical and Computer Engineering*
B.Sc., Andhra University; M.Tech., Indian Institute of Technology; Ph.D., Michigan State University.
- Turhollow, C. Anne (1982)** *Librarian*
B.S., Loyola Marymount University; M.S., Stanford University; M.L.I.S., University of California, Berkeley.
- Turley, Craig W. (2003)** *Professor of Naval Science*
B.A., United States Naval Academy; M.A., Naval War College; M.S., Naval Postgraduate School.
- Twenge, Jean M. (2001)** *Assistant Professor of Psychology*
B.A., M.A., University of Chicago; Ph.D., University of Michigan.
- Tyagi, Pradeep K. (1982)** *Professor of Marketing*
B.S., Jiwaji University, India; M.S., M.B.A., Ph.D., University of Missouri.
- Underhill, Robert (1972)** *Professor of Linguistics*
A.B., Harvard College; Ph.D., Harvard University.
- Usita, Paula M. (2001)** *Associate Professor of Gerontology*
B.A., University of Puget Sound; M.S., Western Washington University; Ph.D., Virginia Polytechnic Institute and State University.
- Valafar, Faramarz (2001)** *Associate Professor of Computer Science*
Verdiplom, Kaiserslautern University; M.S., Michigan Technological University; Ph.D., Purdue University.
- Valdes, Julio R. (2002)** *Assistant Professor of Civil and Environmental Engineering*
B.S.C.E., M.S.C.E., Ph.D., Georgia Institute of Technology.
- Valles, Eugene C. (1993)** *Associate Professor of Special Education*
B.A., M.A., Ph.D., University of New Mexico.
- Varadarajan, Latha (2005)** *Assistant Professor of Political Science*
B.A., Ethiraj College for Women; M.A., Jawaharlal Nehru University; Ph.D., University of Minnesota.
- Varaiya, Nikhil P. (1988)** *Professor of Finance*
B.S., Bombay University; M.B.A., Ph.D., University of Washington.
- Velasquez, Roberto J. (1987)** *Associate Professor of Psychology*
B.A., University of California, Riverside; M.S., Harvard University; Ph.D., Arizona State University.
- Venable, Carol F. (1987)** *Professor of Accountancy*
B.S., M.Ac., Ph.D., University of Arizona. Certified Public Accountant.
- Venkataraman, Satchi (2002)** *Assistant Professor of Aerospace Engineering and Engineering Mechanics*
B.E., Anna University, India; M.S., Clemson University; Ph.D., University of Florida.
- Verity, Larry S. (1984)** *Professor of Exercise and Nutritional Sciences*
B.S., State University of New York, Cortland; M.Ed., University of Virginia; Ph.D., Purdue University.
- Verzi, Diana W. (2001)** *Assistant Professor of Mathematics, Imperial Valley Campus*
B.A., San Diego State University; M.A., Arizona State University; Ph.D., Claremont Graduate University.
- Vik, Gretchen N. (1975)** *Professor of Information and Decision Systems*
A.B., Rice University; M.A., University of South Dakota; Ph.D., University of Florida.
- Vuskovic, Marko I. (1986)** *Professor of Computer Science*
B.S., M.S., University of Belgrade; Ph.D., University of Zagreb.
- Wahl, Patricia R. (1990)** *Professor of Nursing*
B.S.N., M.S.N., Ph.D., University of Cincinnati.
- Walker, Carolyn L. (1986)** *Professor of Nursing*
B.S.N., California State University, Fullerton; M.S.N., California State University, Los Angeles; Ph.D., University of Utah.
- Walsh, Kenneth D. (2002)** *The AGC Paul S. Roel Chair in Construction Engineering and Management; Associate Professor of Civil and Environmental Engineering*
B.S.E., M.S., Ph.D., Arizona State University. Registered Professional Engineer.
- Wang, Minjuan (2000)** *Assistant Professor of Educational Technology*
B.A., Peking University; M.A., Pennsylvania State University; Ph.D., University of Missouri-Columbia.
- Ward, Heather J. (2003)** *Assistant Professor of Communication*
B.S., M.S., Colorado State University; Ph.D., University of Wisconsin, Madison.
- Warman, Harold D. (1977)** *Lecturer in Music*
A.B., M.A., University of Redlands.
- Waters, Elizabeth R. (2002)** *Assistant Professor of Biology*
B.A., Grinnell College; M.S., North Carolina State University; Ph.D., Washington University.
- Waters, Joseph (2001)** *Associate Professor of Music*
B.A., University of Minnesota; M.M., Yale University; Ph.D., University of Oregon.
- Wauchope, Mary M. (1989)** *Associate Professor of German*
B.A., M.A., University of California, Riverside; Ph.D., University of California, Berkeley.
- Wawrytko, Sandra A. (2003)** *Assistant Professor of Asia Pacific Studies*
B.A., Knox College; M.A., Ph.D., Washington University.
- Weber, Fridolin (2003)** *Assistant Professor of Physics*
M.S., Ph.D., University of Munich, Germany.
- Weber, Shirley N. (1972)** *Associate Professor of Africana Studies*
A.B., M.A., Ph.D., University of California, Los Angeles.
- Weeks, John R. (1974)** *Professor of Geography*
A.B., M.A., Ph.D., University of California, Berkeley.
- Weinberg, Marsha (1994)** *Therapist, Counseling and Psychological Services*
B.A., University of Minnesota; M.A., San Diego State University.
- Weiner, Michael A. (2000)** *Professor of Asia Pacific Studies*
B.A., Sophia University, Tokyo; Ph.D., University of Sheffield, England.
- Welsh, William F. (2000)** *Assistant Professor of Astronomy*
B.S., State University of New York at Stony Brook; Ph.D., The Ohio State University.
- Werry, Christopher (2000)** *Assistant Professor of Rhetoric and Writing Studies*
B.A., Victoria University of Wellington; M.A., Ph.D., Carnegie Mellon University.
- West, Mindy S. (2001)** *Assistant Professor of Management, Imperial Valley Campus*
B.S., Ohio Northern University; M.B.A., Miami University; Ph.D., Arizona State University.
- Westermo, Bruce D. (1980)** *Assistant Dean for Student Affairs, College of Engineering; Professor of Civil and Environmental Engineering*
B.S., Illinois Institute of Technology; M.S., Ph.D., California Institute of Technology.
- Weston, Thomas S. (1974)** *Professor of Philosophy*
S.B., Ph.D., Massachusetts Institute of Technology.
- Wheeler, Mark R. (1995)** *Associate Professor of Philosophy*
B.A., Colgate University; M.A., Ph.D., University of Rochester.
- White, Phillip M. (1985)** *Librarian*
B.A., University of Houston; M.L.S., University of Texas.
- Whitney, Roger E. (1985)** *Associate Professor of Computer Science*
B.S., North Dakota State University; Ph.D., University of California, San Diego.

- Whittenburg, Gerald E. (1976)** *Professor of Accountancy*
B.S., M.S., Ph.D., University of Houston. Certified Public Accountant.
- Wiese, Andrew (1996)** *Associate Professor of History*
B.A., University of Iowa; M.A., Ph.D., Columbia University.
- Wiksten, Denise A. (1994)** *Associate Professor of Exercise and Nutritional Sciences*
B.S., Central Michigan University; M.E., Ph.D., University of Virginia.
- Williams, Candace M. (1989)** *Lecturer in Business Administration*
E.M.B.A., Claremont Graduate University.
- Williams, Kathy S. (1987)** *Associate Professor of Biology*
B.A., University of Texas at Austin; Ph.D., Stanford University.
- Williams, Stephen J. (1980)** *Professor of Public Health*
B.S., Carnegie-Mellon University; M.S., Massachusetts Institute of Technology; S.M., Sc.D., Harvard University.
- Williams, Terry A. (1986)** *Lecturer in Rhetoric and Writing Studies*
B.A., College of Wooster; M.A., San Diego State University.
- Wilson, Carlos G. (1992)** *Professor of Spanish*
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- Wilson, Leslie A. (2001)** *Therapist, Counseling and Psychological Services*
B.A., San Diego State University; Ph.D., California School of Professional Psychology, San Diego.
- Wilson, Patricia A. (1990)** *Professor of Public Administration and Urban Studies*
B.A., M.A., University of Michigan; D.P.A., George Mason University.
- Wilson, Thomas E. (2001)** *Associate Director, Student Health Services*
B.B.A., M.S.O.D., Eastern Michigan University.
- Wolf, R. Craig (1987)** *Professor of Theatre, Television, and Film*
B.A., Knox College; M.F.A., Stanford University.
- Wong, Paul (2003)** *Dean, College of Arts and Letters; Professor of Sociology*
B.A., M.A., Ph.D., University of California, Berkeley.
- Wu, Ruey-Jiuan Regina (1999)** *Assistant Professor of Chinese*
B.A., National Taiwan Normal University; M.A., University of Washington; Ph.D., University of California, Los Angeles.
- Wulfack, Beverly B. (1994)** *Professor of Speech, Language, and Hearing Sciences*
B.A., M.A., University of California, Santa Barbara; Ph.D., University of California, San Diego.
- Wulfemeyer, K. Tim (1976, except F'80-S'87)** *Professor of Communication*
A.B., San Diego State University; M.S., Iowa State University; Ed.D., University of California, Los Angeles.
- Yaggie, James (1998)** *Associate Professor of Exercise and Nutritional Sciences*
B.S., M.S., Ph.D., University of Toledo.
- Yang, Yeongling Helio (1988)** *Professor of Information and Decision Systems*
B.A., Cheng-Kung University, Taiwan; M.S., Ph.D., University of Florida.
- Yapelli, Tina Marie (1985)** *Professor of Art, Design and Art History*
B.A., Loyola Marymount University; M.A., California State University, Fullerton.
- Yeager, Bill (1985)** *Professor of Music*
B.M., M.M., North Texas State University.
- Yeh, Chiou-Ling (2002)** *Assistant Professor of History*
B.A., National Chengchi University; M.A., Michigan State University; Ph.D., University of California, Irvine.
- Yeh, May (2001)** *Assistant Professor of Psychology*
B.A., M.A., Ph.D., University of California, Los Angeles.
- Yerrick, Randy K. (1999)** *Professor of Teacher Education*
B.S., M.A., Ph.D., Michigan State University.
- Young, Russell L. (1987)** *Professor of Policy Studies in Language and Cross-Cultural Education*
B.A., University of California, San Diego; M.Ed., University of Hawaii; Ph.D., San Diego State University and Claremont Graduate University.
- Yu, Elena S. H. (1990)** *Professor of Public Health*
M.S., University of Notre Dame; M.P.H., Columbia University in the City of New York; Ph.D., University of Notre Dame.
- Zabaleta, Francisco (2001)** *Assistant Professor of Spanish*
B.A., M.A., San Diego State University; Ph.D., University of California, Santa Barbara.
- Zebedee, Allan A. (2001)** *Assistant Professor of Finance*
B.A., Colby College; M.A., Ph.D., University of California, San Diego.
- Zeller, Robert W. (2001)** *Assistant Professor of Biology*
B.A., Boston University; Ph.D., California Institute of Technology.
- Zhang, Chuanjun (2004)** *Assistant Professor of Electrical and Computer Engineering*
B.S., University of Science and Technology of China; M.S., Beijing Institute of Control Engineering; Ph.D., University of California, Riverside.
- Zhang, Sheldon X. (2002)** *Associate Professor of Sociology*
B.A., Sichuan University, China; M.A., Ph.D., University of Southern California.
- Zhang, Zheng-sheng (1990)** *Associate Professor of Chinese*
B.A., Beijing Teacher's College, Peoples Republic of China; M.A., Ph.D., The Ohio State University.
- Zhong, Mei (1999)** *Assistant Professor of Communication*
B.A., University of Guam; M.A., Southern Illinois University; Ph.D., Kent State University.
- Zimmerman, Bonnie S. (1978)** *Associate Vice President for Faculty Affairs; Professor of Women's Studies*
A.B., Indiana University; Ph.D., State University of New York at Buffalo.
- Zozakiewicz, Cathy (2003)** *Assistant Professor of Teacher Education*
B.A., M.A., Beloit College; Ph.D., University of Wisconsin, Madison.

Emeritus Faculty

Day, Thomas B., Ph.D., President (1978-1996)	Professor of Physics
Golding, Brage, Ph.D., President (1972-1977)	Professor of Chemistry and Engineering
Abbott, Mitchel T., Ph.D. (1964-1992)	Professor of Chemistry
Abbott, Patrick L., Ph.D. (1971-2003)	Professor of Geological Sciences
Abut, Hüseyin, Ph.D. (1981-2001)	Professor of Electrical and Computer Engineering
Ackerly, Jr., Robert S., Ed.D. (1963-1990)	Counselor of the University Advising Center; Professor of Teacher Education
Adams, Elsie B., Ph.D. (1971-1994)	Professor of English and Comparative Literature
Adams, William J., Ph.D. (1955-1983)	Professor of Speech Communication
Ajemian, James A., Ph.D. (1970-1998)	Assistant Professor of Social Work
Akers, Fred C., Ph.D. (1966-1976)	Associate Professor of Marketing
Alexander, James V., Ph.D. (1967-1984)	Associate Professor of Botany
Alf, Jr., Edward F., Ph.D. (1963-1988)	Professor of Psychology
Alfred, Lawrence J., Ph.D. (1994-2000)	Professor of Biology
Allen, Barbara E., M.A. (1969-2001, except S'70)	Assistant Dean for Student Affairs, College of Education
Allen, Elizabeth J., Ph.D. (1971-2004)	Professor of Speech, Language, and Hearing Sciences
Almond, Frank W., Ph.D. (1968-2003)	Professor of Music
Altamura, Nicholas C., Ph.D. (1967-1983)	Associate Professor of Secondary Education
Anantha, Kasi, Ph.D. (1981-2004)	Professor of Computer Science
Anderson, Allan W., Ph.D. (1962-1985)	Professor of Religious Studies
Anderson, Evans L., Ed.D. (1954-1981)	Professor of Education
Anderson, Graydon K., Ph.D. (1949-1979)	Professor of Economics
Anderson, Hayes L., Ph.D. (1966-2001)	Associate Dean, College of Professional Studies and Fine Arts; Professor of Communication
Anderson, Paul V., M.M. (1954-1983)	Professor of Music
Andrain, Charles F., Ph.D. (1964-1998)	Professor of Political Science
Andrus, Ruth, Ph.D. (1962-1982)	Professor of Physical Education
Angione, Ronald J., Ph.D. (1969-2004)	Professor of Astronomy
Annas, Alicia M., M.F.A. (1970-2000)	Professor of Theatre
Anthony, Sally M., Ed.D. (1965-1990)	Professor of Educational Technology
Apple, L. Eugene, Ph.D. (1985-1991)	Assistant Professor of Marketing
Archer, E. C. Jack, Ed.D. (1956-1979)	Professor of Information Systems
Atchison, Thomas J., Ph.D. (1965-1992)	Professor of Management
Atkins, Michael D., Ph.D. (1970-1992)	Professor of Biology
Avila, Vernon L., Ph.D. (1973-2003)	Associate Professor of Biology
Ayala, Reynaldo, Ph.D. (1969-1996)	Professor of Geography, Imperial Valley Campus
Baase-Mayers, Sara, Ph.D. (1972-2000)	Professor of Mathematical and Computer Sciences
Babilot, George, Ph.D. (1956-1991)	Professor of Economics
Bailey, Gerald D., Ed.D. (1964-1992)	Professor of Industrial Technology
Bailey, Greg W., Ed.D. (1982-2002)	Assistant Dean for Student Affairs, College of Engineering; Associate Professor of Electrical and Computer Engineering
Baily, Kamilla U., M.S.W. (1966-1977)	Associate Professor of Social Work
Baker, James R., Ph.D. (1956-1986, except 1961-1962)	Professor of English and Comparative Literature
Baker, Keefe L., M.F.A. (1965-1984)	Professor of Art
Baldwin, Elmer D., Ed.D. (1963-1988)	Professor of Education, Imperial Valley Campus
Ballesteros, David, Ph.D. (1983-1998)	Dean, Imperial Valley Campus
Barber, William F., Ph.D. (1959-1991)	Director, Graduate Programs, College of Business Administration; Professor of Marketing
Barckley, Robert E., Ph.D. (1955-1985)	Professor of Economics
Barclay, A. Bernice, M.A.L.S. (1962-1986)	Associate Librarian
Barnes, Alfred C., H.S.D. (1977-1981)	Associate Professor of Health Science
Barnett, Carol A., Ph.D. (1971-2000)	Professor of Biology
Barone, Joan F., M.S. (1960-1992)	Associate Professor of Physical Education
Barra, Donald P., Ed.D. (1983-2000)	Professor of Music
Barrera, Ernesto M., Ph.D. (1969-1999)	Professor of Spanish
Bart, Kenneth J., M.D. (1998-2004)	Professor of Public Health
Bartholomew, Jr., Francis M., Ph.D. (1967-2001)	Associate Professor of History
Bauer, Edward G., M.S. (1956-1976)	Professor of Mechanical Engineering
Baxter, William L., Ph.D. (1963-1992)	Professor of Biology
Bedore, Robert L., M.S.M.E., Professional Degree in Mechanical Engineering (1959-1992)	Professor of Mechanical Engineering
Bee, Clifford P., Ph.D. (1969-2000)	Professor of Teacher Education
Belasco, James A., Ph.D. (1971-2000)	Professor of Management
Bell, Jr., Charles B., Ph.D. (1981-1992)	Professor of Mathematical Sciences
Bender, Stephen J., H.S.D. (1970-2004)	Professor of Public Health
Bennett, Larry E., Ph.D. (1970-2000)	Professor of Chemistry
Benson, Jackson J., Ph.D. (1966-1997)	Professor of English
Benton, Carl W., Ed.D. (1948-1983)	Professor of Physical Education
Berg, Marlowe J., Ph.D. (1970-2003)	Professor of Teacher Education
Berg, Robert V., M.F.A. (1963-1992)	Professor of Art
Berry, Richard W., Ph.D. (1961-2001)	Professor of Geological Sciences
Bertine, Kathie K., Ph.D. (1973-2000)	Professor of Geological Sciences
Biggs, Millard R., Ph.D. (1958-1986)	Professor of Music
Bilberman, Henry L., M.A. (1956-1977)	Assistant Professor of Mechanical Engineering
Blanc, Sam S., Ed.D. (1966-1981)	Professor of Elementary Education
Blick, James D., Ph.D. (1966-1985)	Associate Professor of Geography
Block, Russell L., J.D. (1969-2004)	Associate Professor of Finance
Bloomberg, Jr., Warner, Ph.D. (1973-1989)	Professor of Sociology
Blue, Carroll Parrott, M.F.A. (1984-2004)	Professor of Theatre, Television, and Film
Blyth, John D., Ed.D. (1957-1983)	Professor of Music
Boddy, Raford D., Ph.D. (1980-2004)	Professor of Economics
Boe, Alfred F., Ph.D. (1968-2003)	Associate Professor of English and Comparative Literature
Boggs, Wilma T., M.S. (1971-1977)	Assistant Professor of Family Studies and Consumer Sciences
Bohnsack, Kurt K., Ph.D. (1956-1983)	Professor of Zoology
Boney, Elaine E., Ph.D. (1963-1986)	Professor of German
Boostrom, Ronald L., D.Crim. (1971-1996)	Professor of Public Administration and Urban Studies
Borges, Marilyn A., Ph.D. (1974-2001)	Professor of Psychology
Boskin, Warren D., Ed.D. (1965-1998)	Associate Professor of Public Health
Bost, John C., J.D. (1979-2003)	Professor of Finance
Botkin, Patricia T., Ed.D. (1969-1988)	Associate Professor of Teacher Education
Brady, F. Neil, Ph.D. (1982-1994)	Professor of Management
Brady, Richard C., Ph.D. (1977-1998)	Associate Professor of Special Education
Branca, Nicholas A., Ed.D. (1976-2002)	Professor of Mathematics
Branstetter, R. Deane, Ph.D. (1955-1981)	Professor of Mathematical Sciences
Brashear, Howard C., Ph.D. (1968-1992)	Professor of English
Bray, Henry G., Ph.D. (1962-1997)	Professor of Mathematical and Computer Sciences
Breindl, Michael J., Ph.D. (1986-2003)	Professor of Biology
Brennen, E. Clifford, D.S.W. (1978-1983)	Professor of Social Work
Briggs, Robert M., Ed.D. (1957-1985)	Professor of Teacher Education
Broadbent, Harry H., M.S. (1949-1979)	Associate Professor of Physical Education
Broderick, William A., Ed.D. (1977-1994)	Administrator, Media Technology Services

Brodshatzer, Arthur, D.B.A. (1956-1986)	Professor of Accountancy
Broom, Betty L., Ph.D. (1979-2003, except F'85-S'86) ..	Associate Professor of Nursing
Brown, Lee, Ph.D. (1978-1994)	Professor of Journalism
Brown, Robert E., Ph.D. (1979-1992)	Professor of Music
Brown, Ruth M. C., Ph.D. (1971-1986)	Associate Professor of English and Comparative Literature
Brown, William L., B.S.E.E., Professional Degree in Electrical Engineering (1962-1983)	
Associate Professor of Electrical and Computer Engineering	
Bruderer, Conrad, D.M. (1963-1996)	Professor of Music
Brunson, Theodore R., D.M.A. (1968-1991)	Professor of Music
Bryson, Jeff B., Ph.D. (1970-2004)	Professor of Psychology
Buckalew, James K., Ph.D. (1967-1999)	Professor of Communication
Bumpus, Jerry D., M.F.A. (1971-1996)	Professor of English
Burdick, David L., Ph.D. (1968-1995)	Associate Professor of Mathematical Sciences
Burgess, William C., Ed.D. (1961-1992)	Professor of Health Science
Burnett, Lowell J., Ph.D. (1972-2001)	Professor of Physics
Burnside, Houston M., Ph.D. (1968-1991)	Professor of Teacher Education
Butler, David H., Ph.D. (1981-2002)	Professor of Accountancy
Butler, Gerald J., Ph.D. (1968-2005)	Professor of English
Butler, Harry, Ph.D. (1975-1990)	Professor of Social Work
Butler, Mark C., Ph.D. (1981-2002)	Professor of Management
Calavita, Nico, Ph.D. (1980-2004)	Professor of Public Administration and Urban Studies
Campbell, L. Beryl, M.A. (1947-1973)	Associate Professor of Elementary Education
Cannon, Nona H., Ed.D. (1959-1979)	Professor of Family Studies and Consumer Sciences
Cargille, Douglas A., M.A., M.L.S. (1978-2001)	Librarian
Carlson, David H., Ph.D. (1982-2002)	Professor of Mathematics
Carmichael, Nancy M., Ph.D. (1968-1995)	Assistant Professor of Biology
Carpenter, Roger E., Ph.D. (1963-1993)	Professor of Biology
Carter, J. E. Lindsay, Ph.D. (1962-1992)	Professor of Physical Education
Case, Thomas E., Ph.D. (1961-1998)	Professor of Spanish
Castro (Castillo), Susana D., Ph.D. (1985-1994)	Professor of Spanish
Cave, Mary F., M.A. (1946-1977)	Associate Professor of Physical Education
Cegelka, Patricia T., Ed.D. (1980-2004)	Professor of Special Education
Chambers, Norman E., Ph.D. (1972-2001)	Professor of Africana Studies
Chan, Lillian L., M.A.L.S. (1969-1998)	Librarian
Chan, S. Yun, Ph.D. (1965-1979)	Professor of Electrical Engineering
Chandler, Shelly E., Ph.D. (1966-2003)	Associate Professor of Sociology
Chang, Ching-Ten, Ph.D. (1979-2004)	Professor of Electrical and Computer Engineering
Chang, Howard H., Ph.D., Professional Degree in Civil and Environmental Engineering (1967-2003)	
Professor of Civil and Environmental Engineering	
Charles, Carol M., Ph.D. (1961-1988)	Professor of Teacher Education
Chater, Elizabeth E., M.A. (1964-1977)	Professor of English
Cheek, William F., Ph.D. (1968-2004)	Professor of History
Chen, Lo-chai, Ph.D. (1969-2001)	Professor of Biology
Cherin, Antony C., Ph.D. (1982-2003)	Professor of Finance
Chou, Fang-Hui, Ph.D., Professional Degree in Civil and Environmental Engineering (1969-2003)	
Professor of Civil and Environmental Engineering	
Christensen, C. Ben, Ph.D. (1968-2000)	Professor of Spanish
Christensen, Kathee M., Ph.D. (1978-2004)	Professor of Speech, Language, and Hearing Sciences
Chu, Paochin, Ph.D. (1967-2001)	Professor of History
Clapp, James A., Ph.D. (1968-2001)	Professor of Public Administration and Urban Studies
Clark, Mary E., Ph.D. (1969-1986)	Professor of Biology
Clement, Norris C., Ph.D. (1968-2000)	Professor of Economics
Cobble, James W., Ph.D. (1973-2002)	Vice President for Research and Dean, Graduate Division; Professor of Chemistry
Cohn, Theodore J., Ph.D. (1964-1992)	Professor of Biology
Coleman, Kathleen L., M.A., M.S.L.S. (1973-2002)	Librarian
Collier, Boyd D., Ph.D. (1966-1998)	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)	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, II, Glover T., M.F.A. (1966-2004)	Professor of English
Davis, Inger P., Ph.D. (1977-1996)	Professor of Social Work
Davis, Roger A., Ph.D. (1992-2004)	Professor of Biology
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
Donahue, Thomas S., Ph.D. (1968-2003)	Professor of Linguistics
Donald, John D., Ph.D. (1978-2004)	Professor of Computer Science
Doorlag, Donald H., Ph.D. (1970-1998)	Professor of Special Education
Dorris, Helen L., M.S. (1952-1982)	Professor of Family Studies and Consumer Sciences

Emeritus Faculty

Dowler, Michael J., Ph.D. (1971-2001).....	Professor of Biology
Downey, Carolyn J., Ph.D. (1988-2004).....	Associate Professor of Educational Leadership
Downing, Christine R., Ph.D. (1974-1992).....	Professor of Religious Studies
DuBois, Barbara C., Ph.D. (1989-2004).....	Assistant Professor of Gerontology
Duckworth, Joseph B., Ed.D. (1968-1998).....	Professor of Teacher Education
DuFault, David V., Ph.D. (1962-1999).....	Associate Professor of History
Dukas, Vytas, Ph.D. (1959-1988).....	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
Dunn, Ross E., Ph.D. (1968-2003).....	Professor of History
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
Eisner, Robert E., Ph.D. (1970-2003).....	Professor of Classics and Humanities
El-Assal, Mohamed M.E., Ph.D. (1967-1992).....	Professor of Sociology
Elgin, Suzette, Ph.D. (1972-1981).....	Associate Professor of Linguistics
Elliott, Rosalie C., Ph.D. (1968-1982).....	Professor of Elementary Education
Elwin, John D., Ph.D. (1969-2004).....	Professor of Mathematics
Emerick, Robert E., Ph.D. (1968-2004).....	Professor of Sociology
Erickson, Paul, Ed.D. (1963-1986).....	Professor of Teacher Education
Espin, Olivia M., Ph.D. (1990-2002).....	Professor of Women's Studies
Esser, Janet B., Ph.D. (1975-1999).....	Professor of Art
Estes, Russell G., Ed.D. (1963-1992).....	Professor of Music
Etheridge, Richard E., Ph.D. (1961-1992).....	Professor of Biology
Farber, Gerald H., Ph.D. (1968-2004).....	Professor of English and Comparative Literature
Fatemi, Khosrow, Ph.D. (1998-2004).....	Dean, Imperial Valley Campus; Professor of Management, Imperial Valley Campus
Faulkner, D. George, M.S. (1983-1992).....	Lecturer in Aerospace Engineering and Engineering Mechanics
Feenberg, Andrew L., Ph.D. (1969-2004).....	Professor of Philosophy
Feeney, William R., Ph.D. (1974-1997).....	Associate Professor of Information and Decision Systems
Fehler, 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
Fenson, Larry, Ph.D. (1975-2003).....	Professor of 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
Fisher, Kathleen M., Ph.D. (1988-2004).....	Professor of Biology
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
Francis, Peter R., Ph.D. (1981-2003).....	Professor of Exercise and Nutritional Sciences
Franz, Edward P., M.A. (1965-2003).....	Associate Professor of Exercise and Nutritional Sciences
Franzini, Louis R., Ph.D. (1969-2001).....	Professor of Psychology
Frase, Larry E., Ed.D. (1987-2004).....	Professor of Educational Leadership
Fredrich, Barbara E., Ph.D. (1972-2004).....	Professor of Geography
Freitas, Lorraine, Ph.D. (1984-2004).....	Associate Professor of Nursing
Frey, Leonard H., Ph.D. (1956-1989).....	Professor of Linguistics
Frick, Fay A., Ph.D. (1970-1990).....	Associate Professor of Art
Friedman, Abraham M., Ph.D. (1963-1983).....	Associate Professor of Physical Education
Friedman, Maurice Stanley, Ph.D. (1973-1991).....	Professor of Religious Studies, Philosophy, and Comparative Literature
Futch, David G., Ph.D. (1967-1998).....	Associate Professor of Biology
Gallo, Jr., Philip S., Ph.D. (1963-1996).....	Professor of Psychology
Gange, Samuel J., Ed.D. (1969-1995).....	Counseling Psychologist, Counseling and Psychological Services
Garrett, Kenneth C., M.Div. (1994-2003).....	Lecturer in Accountancy
Garrison, Betty B., Ph.D. (1962-1996).....	Professor of Mathematical Sciences
Garrison, John D., Ph.D. (1956-1983).....	Professor of Physics
Gast, David K., Ed.D. (1963-1991).....	Professor of Teacher Education
Gastil, R. Gordon, Ph.D. (1959-1993).....	Professor of Geological Sciences
Gates, Gerald F., Ed.D. (1955-1986).....	Professor of Teacher Education
Geffer, Irving, Ph.D. (1970-1992).....	Assistant Professor of Religious Studies
Gega, Peter C., Ed.D. (1955-1987).....	Professor of Teacher Education
Genovese, E. Nicholas, Ph.D. (1970-2003).....	Professor of Classics and Humanities
Genzlinger, Cleve K., M.M. (1957-1991).....	Professor of Music
Getis, Arthur, Ph.D. (1990-2004).....	The Stephen and Mary Birch Foundation Chair in Geographical Studies; Professor of Geography
Ghilbert, Jeanne S., M.A. (1965-1982).....	Assistant Professor of French
Ghorpade, Jaisingh V., Ph.D. (1965-2000).....	Professor of Management
Gibson, E. Dana, Ph.D. (1947-1971).....	Professor of Information Systems
Gifford, Adam, Ph.D. (1954-1989).....	Professor of Economics
Gilbreath, Stuart H., Ph.D. (1968-2003).....	Professor of Public Administration and Urban Studies
Gillette, Thomas L., Ph.D. (1961-1989).....	Professor of Sociology
Gindler, Herbert A., Ph.D. (1960-1992).....	Professor of Mathematical Sciences
Gitchoff, G. Thomas, D.Crim. (1969-2001).....	Professor of Public Administration and Urban Studies
Gitman, Lawrence J., Ph.D. (1989-2004).....	Professor of Finance
Goldkind, Victor, Ph.D. (1961-1992).....	Professor of Anthropology
Goodson, Roger A., Ed.D. (1968-1988).....	Professor of Teacher Education
Goodwin, Joann P., M.L.S. (1968-1991).....	Senior Assistant Librarian
Goynne, Carol L., M.A., M.S.L.S. (1969-2002).....	Associate Librarian
Graham, William K., Ph.D. (1973-2003).....	Professor of Psychology
Granrud, Carolyn A., B.S.L.S. (1960-1987).....	Senior Assistant Librarian
Grawunder, Ralph M., Ed.D. (1955-1991).....	Professor of Physical Education
Gray, Robert T., Ed.D. (1956-1987).....	Professor of Teacher Education
Green, Louis C., Ph.D. (1976-2003).....	Professor of Economics
Greenfeld, Philip J., Ph.D. (1969-2005).....	Professor of Anthropology
Greenwood, Ned H., Ph.D. (1964-1995).....	Professor of Geography
Griffin, Ernst C., Ph.D. (1972-2004).....	Special Assistant to the Associate Vice President for Academic Affairs; Professor of Geography
Griffin, Herschel E., M.D. (1980-1987).....	Professor of Public Health
Griffin, Ronald W., Ph.D. (1967-2001).....	Professor of Social Work
Gripp, Richard C., Ph.D. (1958-1985).....	Professor of Political Science
Groff, Patrick J., Ed.D. (1955-1981).....	Professor of Elementary Education
Gross, George C., Ph.D. (1961-1985).....	Professor of English and Comparative Literature
Grossberg, John M., Ph.D. (1962-1995).....	Professor of Psychology
Grubbs, Edward J., Ph.D. (1961-1997).....	Professor of Chemistry
Guentzler, William D., Ph.D. (1968-2004).....	Professor of Industrial Technology
Guidry, Rosalind, Ph.D. (1970-1989).....	Associate Professor of Social Work
Gulino, Claire, Ed.D. (1982-1991).....	Professor of Nursing
Gumbiner, Judith G., M.A. (1967-2004).....	Director, Career Services, Student Affairs; Counselor
Gunning, Barbara E., Ph.D. (1969-1988).....	Professor of Family Studies and Consumer Sciences

Gutowski, Jr., Julius P., A.B. (1967-1991).....	Assistant Professor of Physical Education
Haas, Robert W., Ph.D. (1967-1997).....	Professor of Marketing
Hager, Richard A., Ph.D. (1967-2000).....	Professor of Mathematical and Computer Sciences
Hale, E. Alan, Ph.D. (1957-1987).....	Professor of Marketing
Hambleton, John W., Ph.D. (1969-2003).....	Associate Professor of Economics
Hamilton, Charles D., Ph.D. (1974-2001).....	Professor of History and Classics
Hammer, Gerald K., Ed.D. (1963-1992).....	Professor of Industrial Technology
Hampton, David R., Ph.D., J.D. (1964-2004).....	Professor of Management
Hanchett, William F., Ph.D. (1956-1987).....	Professor of History
Hanscom, III, Zac, Ph.D. (1978-2002).....	Associate Professor of Biology
Hanson, Robert F., Rec.D. (1962-1983).....	Professor of Recreation
Harari, Herbert, Ph.D. (1966-1987).....	Professor of Psychology
Harder, Donald F., Ed.D. (1960-1983).....	Counselor, Counseling Services
Harkányi, Katalin, M.L.S. (1969-2003).....	Librarian
Harmon, James E., Ph.D. (1964-1981).....	Associate Professor of Political Science, Imperial Valley Campus
Harris, Mary E., M.A.L.S. (1982-1992).....	Associate Librarian
Harrison, Patrick J., Ph.D. (1970-2000).....	Professor of Educational Technology
Hartung, Barbara W., Ph.D. (1976-2001).....	Executive Assistant to the President; Professor of Communication
Harvey, Anne-Charlotte, Ph.D. (1984-2003).....	Professor of Theatre
Harvey, A. Raymond, Ph.D. (1949-1983).....	Professor of Mathematical Sciences
Harvey, Michael L., Ph.D. (1969-2001).....	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
Hayes, Charlotte E., M.S. (1972-2004).....	Counselor, Counseling and Psychological Services
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
Hemmingsen, Barbara B., Ph.D. (1973-2004).....	Professor of Biology
Henderson, Joel H., Ph.D. (1971-2000).....	Professor of Public Administration and Urban Studies
Henry, Edward O., Ph.D. (1974-2004).....	Professor of Anthropology
Hewes, Dorothy W., Ph.D. (1974-1992).....	Professor of Family Studies and Consumer Sciences
Heyman, Neil M., Ph.D. (1969-2002).....	Professor of History
Higgins, Winifred H., Ph.D. (1964-1983).....	Professor of Art
Hill, Howard, M.A. (1967-2000).....	Associate Professor of Music
Hill, Jr., Richard B., Ph.D. (1969-1999).....	Assistant Professor of Sociology, Imperial Valley Campus
Hill, Wayne O., Ed.D. (1955-1983).....	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
Hoidal, Oddvar K., Ph.D. (1967-2003).....	Professor of History
Holmes, Calvin V., Ph.D. (1956-1992).....	Professor of Mathematical Sciences
Hoover, Grace V., B.S.L.S. (1956-1981).....	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
Hostetter, 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
Houston, Carol O., Ph.D. (1986-2004).....	Professor of Accountancy
Howard, Gordon S., Ph.D. (1968-1983).....	Professor of Drama
Howard, Raymond C., Ed.D. (1974-1989).....	Associate Professor of Counselor Education
Hoyt, Jack W., Ph.D. (1981-1992).....	Professor of Mechanical Engineering
Huckle, Patricia, Ph.D. (1975-2001).....	Professor of Women's Studies
Huffman, Edward W., Ph.D. (1955-1980).....	Professor of Zoology
Hughes, Margaret J., Ph.D. (1997-2004).....	Associate Professor of Social Work
Hungate, Robert P., Ph.D. (1961-1987, except 1965-1969).....	Professor of Finance
Hunrichs, William A., Ph.D. (1957-1985).....	Professor of Psychology
Hunsaker, II, Don, Ph.D. (1960-1996).....	Professor of Biology
Hunter, Lawrence B., M.A. (1963-1989).....	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).....	Professor of English
Ingmanson, Dale E., Ed.D. (1968-1999).....	Professor of Teacher Education
Inskeep, Jr., James E., Ph.D. (1960-1990).....	Professor of Teacher Education
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
Jiracek, George R., Ph.D. (1980-2004).....	Professor of Geological Sciences
Johns, Ann M., Ph.D. (1975-2002).....	Professor of Rhetoric and Writing Studies and Linguistics
Johns, David H., Ph.D. (1965-2001).....	Professor of Political Science
Johns, Gerald E., M.S.L.S. (1967-1986).....	Associate Librarian
Johnson, Albert W., Ph.D. (1964-1991).....	Vice President for Academic Affairs; Professor of Biology
Johnson, Joseph S., Ph.D. (1967-1999).....	Professor of Communication
Johnson, Kenneth D., Ph.D. (1972-2001).....	Professor of Biology
Johnson, Philip E., M.S.C.E. (1958-1987).....	Professor of Civil Engineering
Johnson, Warren A., Ph.D. (1969-1997).....	Professor of Geography
Johnson, Willard L., Ph.D. (1977-2001, except F'80-S'81 and S'83).....	Professor of Religious Studies
Jones, Kathleen B., Ph.D. (1981-2003).....	Professor of Women's Studies
Jones, Jr., Kenneth K., M.A. (1948-1983).....	Professor of Telecommunications and Film
Jones, Walter D., Ph.D. (1962-1991).....	Professor of Chemistry
Jordan, Jr., G. Ray, Ph.D. (1966-1987).....	Professor of Religious Studies
Joseph, Lionel, Ph.D. (1947-1971).....	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).....	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
Kartman, Arthur E., Ph.D. (1968-2005).....	Professor of Economics
Kasch, Frederick W., Ed.D. (1948-1981).....	Professor of Physical Education

Emeritus Faculty

Kass, Norman, Ph.D. (1961-1997)	Professor of Psychology
Keen, Elmer A., Ph.D. (1967-1989)	Professor of Geography
Kehler, Dorothea F., Ph.D. (1970-2001)	Professor of English
Keiser, K. Robert, Ph.D. (1968-2004)	Associate Professor of Political Science
Kelley, Joseph B., D.S.W. (Under contract 1968-1969; 1970-1998)	Professor of Social Work
Kelly, Beatrice L., Ph.D. (1967-1983)	Professor of Microbiology
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)	Professor of Geological Sciences
Kessler, Lois P., M.A. (1969-1990)	Associate Professor of Health Science
Khalil, Issa J., Ph.D. (1969-1992)	Associate Professor of Religious Studies
Kiewiet De Jonge, Engbert J. C., Ph.D. (1963-1983)	Professor of Geography
King, Bonnie B., M.A. (1970-1984)	Assistant Professor of English, Imperial Valley Campus
King, Harry A., Ph.D. (1978-1997)	Professor of Exercise and Nutritional Sciences
Kinsey, Margaret E., M.A. (1961-1972)	Circulation Librarian
Kirkpatrick, R. George, Ph.D. (1972-2003)	Associate Professor of Sociology
Kish, Kathleen V., Ph.D. (1999-2004)	Professor of Spanish
Kitchen, James D., Ph.D. (1957-1981)	Professor of Public Administration and Urban Studies
Kitzinger, Angela M., Ph.D. (1945-1969)	Professor of Health Science and Safety
Kochanski, Adrian J., Ph.D. (1969-1983)	Professor of Public Administration and Urban Studies
Kohen, Janet A., Ph.D. (1980-2001)	Associate Professor of Women's Studies
Kohler, Richard C., Ph.D. (1969-1988)	Professor of English and Comparative Literature
Kopp, Harriet G., Ph.D. (1970-1983)	Professor of Communicative Disorders
Koppman, Jerry W., Ph.D. (1963-1987)	Professor of Psychology
Kornweibel, Jr., Theodore, Ph.D. (1977-2001)	Professor of Africana Studies
Krekorian, Neil, Ph.D. (1970-2001)	Professor of Biology
Krisans, Skaidrite, Ph.D. (1969-2002)	Professor Biology
Krishnamoorthy, Govindarajulu, Ph.D. (1968-2003)	Professor of Civil and Environmental Engineering
Krummenacher, Daniel, Ph.D. (1968-1988)	Professor of Geological Sciences
Kuhlman, Natalie A., Ph.D. (1979-2003)	Professor of Policy Studies in Language and Cross-Cultural Education
Kukkonen, Ruth M., M.S.W. (1973-1989)	Professor of Social Work
Kummerow, Jochen, Ph.D., nat. (1973-1990)	Professor of Biology
Kushner, Howard I., Ph.D. (1980-2002)	Professor of History
Kuznets, Lois R., Ph.D. (1985-1996)	Professor of English
Laiho, Ethel E., M.S. (1964-1982)	Associate Professor of Nursing
Lamb, Alma S., B.S. (1962-1988)	Assistant Librarian
Lambert, Arthur A., Ph.D. (1960-1983)	Professor of Music
LaMonica, Grace, M.S. (1966-1992)	Assistant Professor of Nursing
Landis, Jean, M.S. (1968-1979)	Assistant Professor of Physical Education
Landis, Vincent J., Ph.D. (1954-1997)	Professor of Chemistry
Landsverk, John A., Ph.D. (1990-2004)	Professor of Social Work
Langenbach, Robert G., Ed.D. (1959-1981)	Professor of Information Systems
Lantz, John M., Ph.D. (1986-1998)	Professor of Nursing
Latta, Raymond F., Ph.D. (1977-2002)	Professor of Educational Leadership
Lawson, Richard H., Ph.D. (1957-1984, except 1976-1984)	Professor of German
Leach, Larry L., Ph.D. (1968-2003)	Professor of Anthropology
Leasure, J. William, Ph.D. (1962-1992)	Professor of Economics
Lebherz, Herbert G., Ph.D. (1976-1996)	Professor of Chemistry
Leckart, Bruce T., Ph.D. (1968-1993)	Professor of Psychology
Lee, Dalton S., Ph.D. (1985-2003)	Associate Professor of Public Administration and Urban Studies
Lee, Raymond, Ph.D. (1977-1992)	Associate Professor of Psychology
Lee, Robert E., M.A. (1956-1983)	Professor of Telecommunications and Film
Leerhoff, Ruth E., M.A. (1964-1991)	Librarian
Lemus, George, Ph.D. (1960-1991)	Professor of Spanish
Leslie, Norman C., M.N. (1969-1988)	Assistant Professor of Nursing
Lewin, Harlan J., Ph.D. (1967-2000)	Associate Professor of Political Science
Lienert, Charles, Ed.D. (1954-1977)	Professor of Educational Administration
Lightner, Kevin M., Ph.D. (1968-2004)	Professor of Accountancy
Lilly, Roger A., Ph.D. (1968-2001)	Professor of Physics
Lin, Mao-Shiu, Ph.D. (1966-2002)	Professor of Electrical and Computer Engineering
Lindgren, Donald A., Ph.D. (1965-1992)	Professor of Marketing
Lippold, Lois K., Ph.D. (1968-2003)	Professor of Anthropology
Little, D. Richard, Ph.D. (1974-1995)	Professor of Political Science
Lodge, Chester R., Ph.D. (1954-1988)	Professor of Electrical and Computer Engineering
Longenecker, Martha, M.F.A. (1955-1981)	Professor of Art
Lookinland, Sandra, Ph.D. (1981-2004, except 1997-2002)	Professor of Nursing
Loomis, David M., M.M. (1961-1983)	Associate Professor of Music
Loveridge, Catherine E., Ph.D. (1983-2003)	Professor of Nursing
Lujan, Jaime L., Ph.D. (1976-2004)	Associate Professor of Teacher Education
Lutz, Donald A., Ph.D. (1986-2004)	Professor of Mathematics
Lybarger, Alvin E., Ed.D. (1970-1992)	Associate Professor of Mechanical Engineering
Lynch, Eleanor W., Ph.D. (1979-2003)	Professor of Special Education
Lynn, Elizabeth, Ph.D. (1963-1988)	Associate Professor of Psychology
Lyons-Lawrence, Carolena L., Ph.D. (1987-2004)	Associate Professor of Information and Decision Systems
MacDonald, Gretchen, Ph.D. (1966-1981)	Associate Professor of Study Skills
Mackey, 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, Donald R., Ph.D. (1969-2004)	Associate Dean, College of Professional Studies and Fine Arts; Associate Professor of Communication
Martin, Joan L., Ed.D. (1970-1992)	Professor of Family Studies and Consumer Sciences
Martinez, Julio A., Ph.D. (1973-1992)	Associate Librarian
Massey, Gail A., Ph.D. (1981-1997)	Professor of Electrical and Computer Engineering
Mathewson, James H., Ph.D. (1964-1992)	Professor of Chemistry
Max, Stefan L., Ph.D. (1964-1984)	Professor of French
May, Thomas L., Ph.D. (1971-1998)	Associate Professor of Astronomy
McAdams, Henry E., Ph.D. (1966-1992)	Director, University Advising Center; Counselor
McAllister, R. Wayne, M.A. (1966-1983)	Assistant Professor of Educational Technology and Librarianship
McAmis, Lessley C., B.A. (1959-1971)	Documents Librarian
McArthur, David S., Ph.D. (1973-2004)	Professor of Geography
McCaffery, Lawrence F., Ph.D. (1976-2004)	Professor of English and Comparative Literature
McClard, Q. Donavon, Ph.D. (1966-1986)	Professor of Special Education
McCordick, Sharon M., Ph.D. (1969-2001)	Associate Professor of Psychology

McCormack, Alan J., Ed.D. (1987-2004).....	Professor of Teacher Education
McCoy, Leone D., Ph.D. (1967-1990).....	Professor of Teacher Education
McDean, Harry C., Ph.D. (1971-2003).....	Professor of History
McDonald, Roy D., Ph.D. (1963-1992).....	Professor of Psychology
McEwen, R. Harold, Ph.D. (1967-1992).....	Associate Professor of Industrial Technology
McEuen, Robert B., Ph.D. (1969-1979).....	Professor of Geological Sciences
McFall, John B., Ph.D. (1966-1985).....	Professor of Marketing
McGhie, Robert D., Ph.D., Professional Degree in Mechanical Engineering (1967-1997).....	Professor of Civil and Environmental Engineering
McKenzie, Thomas L., Ph.D. (1980-2004).....	Professor of Exercise and Nutritional Sciences
McKerrow, Margaret, Ph.D. (1971-2003).....	Professor of Theatre, Television, and Film
McLeod, Dan, Ph.D. (1964-1993).....	Professor of English and Comparative Literature
McLeod, Douglas B., Ph.D. (1972-2001).....	Professor of Mathematics
McLoney, Wirt, Ed.D. (1949-1974).....	Professor of Industrial Studies
McTaggart, Aubrey C., Ph.D. (1962-1992).....	Professor of Health Science
Meador, Thomas C., M.A. (1966-2001).....	Associate Professor of Communication
Meadows, Eddie S., Ph.D. (1972-2001).....	Professor of Music
Mehaffy, George L., Ph.D. (1986-1994).....	Professor of Teacher Education
Meier, Robert A., Ph.D. (1972-1986).....	Professor of Accountancy
Meigs, Robert F., Ph.D. (1972-1996).....	Professor of Accountancy
Merino, Alfred, Ed.D. (1974-2001).....	Associate Dean, Imperial Valley Campus; Professor of Administration, Rehabilitation and Postsecondary Education
Miles, E. Walter, Ph.D. (1966-1998).....	Professor of Political Science
Miller, Allan W., M.F.A. (1963-2004).....	Professor of Art, Design and Art History
Miller, Ralph Llewellyn, Ph.D. (1963-1996).....	Professor of Counseling and School Psychology
Miller, Richard H., Ph.D. (1977-2001).....	Professor of Geological Sciences
Milne, David S., Ph.D. (1946-1976).....	Professor of Sociology
Milne, Thair S., M.A. (1968-1979).....	Associate Professor of Family Studies and Consumer Sciences
Mitchell, Danlee G., M.S. (1964-2000).....	Professor of Music
Mitton, Daryl G., Ph.D. (1966-1991).....	Professor of Management
Moaney, Eric R., M.F.A., M.S. (1968-1998).....	Assistant Professor of Art
Moe, Jean T., M.A. (1966-1983).....	Associate Professor of Music
Moffett, Myrna J., Ph.D. (1968-1998).....	Assistant Professor of Nursing
Mollenauer, Sandra O., Ph.D. (1970-2003).....	Professor of Psychology
Monroe, Ronald E., Ph.D. (1973-1997).....	Professor of Biology
Monteverde, John P., Ph.D. (1954-1986).....	Professor of English and Comparative Literature
Moore, Harold B., Ph.D. (1960-1991).....	Professor of Biology
Moore, Mary Jane, Ph.D. (1972-2002).....	Associate Professor of Anthropology
Moramarcio, Fred S., Ph.D. (1969-2002).....	Professor of English
Moreno, Steve G., Ed.D. (1969-1998).....	Professor of Teacher Education
Morey, Ann I., Ph.D. (1985-2003).....	Distinguished Research Professor; Director, Center for Educational Leadership, Innovation and Policy
Morgan, Charles, M.S. (1949-1985).....	Professor of Mechanical Engineering
Morris, Rita I., Ph.D. (1990-2002).....	Associate Professor of Nursing
Moser, Joseph M., Ph.D. (1959-1998).....	Professor of Mathematical and Computer Sciences
Munter, Robert L., Ph.D. (1964-1991).....	Professor of History
Murdock, Doris G., B.S.L.S. (1960-1972).....	Catalog Librarian
Murphy, Monica A., Ph.D. (1969-1992).....	Professor of Teacher Education
Murphy, Robert J., Ph.D., Professional Degree in Mechanical Engineering (1964-1996).....	Professor of Mechanical Engineering
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).....	Professor of Philosophy
Nelson, Thomas A., Ph.D. (1968-2000).....	Professor of English
Nesvig, David T., Ed.D. (1967-1997).....	Counselor
Neuman, Donald R., Ph.D. (1967-1991).....	Counselor
Neumeyer, Peter F., Ph.D. (1978-1993).....	Professor of English and Comparative Literature
Neyndorff, Hans, Doctorandus (1962-1983).....	Senior Assistant Librarian
Nichols, Alan C., Ph.D. (1964-2000).....	Professor of Communicative Disorders
Nichols, Paul F., Ph.D. (1965-1992).....	Professor of Physics
Noorany, Iraj, Ph.D., Professional Degree in Civil Engineering (1963-1997).....	Professor of Civil and Environmental Engineering
Norman, Nelson F., Ph.D. (1960-1983).....	Professor of History
Norman, Ronald J., Ph.D. (1985-2000).....	Professor of Information and Decision Systems
Noto, James V., H.S.D. (1969-2001).....	Associate Professor of Public Health
Nower, Leon, Ph.D. (1963-1990).....	Associate Professor of Mathematical Sciences
Núñez, René, Ph.D. (1987-2002).....	Assistant Professor of Chicana and Chicano Studies and Policy Studies in Language and Cross-Cultural Education
Nye, William A., Ph.D. (1962-1996).....	Professor of Finance
Oades, Rizalino A., Ph.D. (1969-2002).....	Associate Professor of History
O'Brien, Albert C., Ph.D. (1965-2000).....	Professor of History
O'Brien, Bob R., Ph.D. (1966-1995).....	Professor of Geography
O'Brien, Mary E., Ph.D. (1966-2000).....	Associate Professor of Spanish
O'Day, Edward F., Ph.D. (1957-1986).....	Professor of Psychology
Odendahl, Eric M., Ph.D. (1964-1992).....	Professor of Journalism
Oglesby, Allan C., M.D. (1984-1990).....	Professor of Public Health
Ohnysty, Basil, M.S., Professional Degree in Mechanical Engineering (1967-1997).....	Professor of Mechanical Engineering
Olson, Jr., Andrew C., Ph.D. (1946-1980).....	Professor of Zoology
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).....	Professor of Philosophy
Orth, Fredrick J., M.F.A. (1965-2001).....	Professor of Art, Design and Art History
Pacheco, Richard, Ph.D. (1979-2003).....	Professor of Policy Studies in Language and Cross Cultural Education
Padgett, L. Vincent, Ph.D. (1956-1992).....	Professor of Political Science
Palmer, Dennis, A.B. (1965-1997).....	Associate Professor of French
Palsson, Gerald D., M.A. (1976-2003).....	Associate Librarian
Panos, Nicholas, M.S.E.E., Professional Degree in Electrical and Computer Engineering (1968-2001).....	Professor of Electrical and Computer Engineering
Paolini, Jr., Paul J., Ph.D. (1970-2003).....	Professor of Biology
Park, Chong Jin, Ph.D. (1972-1999).....	Professor of Mathematical and Computer Sciences
Parsons, John A., Ph.D. (1965-1990).....	Professor of Biology
Paulin, Harry W., Ph.D. (1962-1991).....	Professor of German
Pease, William J., M.A., M.L.S. (1973-1992).....	Librarian
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
Pierce, Stephen J., Ph.D. (1984-2004).....	Professor of Mathematics
Pierson, Albert Chad, Ph.D. (1954-1983).....	Professor of Management
Piland, William E., Ed.D. (1987-2003).....	Professor of Administration, Rehabilitation and Postsecondary Education

Emeritus Faculty

Pincetti, 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
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)	Professor of Biology
Ray, Eugene A., M.F.A. (1969-1996)	Professor of Art
Raymer, Paul H., M.S.W. (Under contract 1969-70; 1970-1995)	Assistant Professor of Social Work
Real, Michael R., Ph.D. (1980-2000)	Professor of Communication
Redding, Mary Worden, Ph.D. (1967-1983)	Associate Professor of English and Comparative Literature
Redding, Robert W., Ph.D. (1966-1985)	Associate Professor of English and Comparative Literature
Reel, Jane E., Ph.D. (1958-1991)	Associate Professor of Teacher Education
Rehfuss, Donald E., Ph.D. (1962-2004)	Professor of Physics
Reichert, Kurt, Ph.D. (1970-1981)	Professor of Social Work
Reints, William W., Ph.D., (1966-1992)	Professor of Finance
Retson, James N., Ed.D. (1968-1992)	Professor of Teacher Education
Richardson, William H., Ph.D. (1963-1994)	Professor of Chemistry
Riedman, Richard M., Ph.D. (1962-1992)	Professor of Communicative Disorders
Riegel, Barbara Jean, D.N.Sc. (1984-2002, except F'87-S'95)	Professor of Nursing
Riehman, Lynne, D.S.W. (1976-1986)	Associate Professor of Social Work
Rigby, Ida K., Ph.D. (1976-2005)	Professor of Art, Design and Art History
Riggs, Dorothy J., Ed.D. (1966-1986)	Professor of Teacher Education
Riggs, Lester G., Ph.D. (1950-1978, except 1951-1952)	Professor of Mathematical Sciences
Rinehart, Robert R., Ph.D. (1964-1994)	Professor of Biology
Ring, Morey A., Ph.D. (1962-1995)	Professor of Chemistry
Rixman, Eunice E., D.M.A. (1960-1991)	Professor of Teacher Education
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, Gloria H., M.L.S., M.A. (1985-2003)	Associate Librarian
Rogers, John J., M.S. (1963-1996)	Professor of Art
Rogers, Il, William N., Ph.D. (1968-2003)	Professor of English and Comparative Literature
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
Rosenstein, Leon, Ph.D. (1969-2003)	Professor of Philosophy
Ross, Helen Warren, Ph.D. (1973-1998)	Professor of Child and Family Development
Ross, James E., Ph.D. (1969-1999)	Professor of Mathematical and Computer Sciences
Ross, Ramon R., Ed.D. (1961-1992)	Professor of Teacher Education
Rost, Norman, M.M. (1951-1977)	Professor of Music
Rother, James, Ph.D. (1969-2003)	Professor of English and Comparative Literature
Rushall, Brent S., Ph.D. (1985-2004)	Professor of Exercise and Nutritional Sciences
Sachdeva, Kanwal S., D.B.A. (1976-2004)	Associate Professor of Finance
Saltz, Daniel, Ph.D. (1959-1995)	Professor of Mathematical Sciences
Samovar, Larry A., Ph.D. (1963-2000)	Professor of Communication
Samuelson, Richard A., Ph.D., Certified Public Accountant (1973-2000)	Professor of Accountancy
Sandelin, Mary Lee, M.L.S. (1968-1983)	Senior Assistant Librarian
Sanders, Frederick C., Ph.D. (1967-1981)	Associate Professor of Speech Communication
Sandlin, Joann S., Ph.D. (1967-1994)	Professor of Sociology
Sanner, Richard L., Ed.D. (1965-1981)	Media Specialist
Santangelo, Gennaro A., Ph.D. (1967-1992)	Professor of English and Comparative Literature
Sardinas, Maria A., M.T., M.S.W. (1968-1989)	Associate Professor of Social Work
Sattler, Jerome M., Ph.D. (1965-1994)	Professor of Psychology
Savvas, Minas, Ph.D. (1968-2001)	Professor of English and Comparative Literature
Schapiro, Harriette C., Ph.D. (1966-1990)	Professor of Biology
Schatz, Arthur W., Ph.D. (1963-1992)	Assistant Dean, Graduate Division and Research; Professor of History
Scheck, Dennis C., Ph.D. (1968-2001)	Professor of Sociology
Schlesinger, Robert J., Ph.D. (1984-1997)	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)	Professor of Spanish
Segal, Evalyn F., Ph.D. (1973-1983)	Professor of Psychology
Seitz, Michael R., Ph.D. (1985-2004)	Professor of Speech, Language, and Hearing Sciences
Selder, Dennis J., Ph.D. (1968-2000)	Professor of Exercise and Nutritional Sciences
Senn, Karen L., Ed.D., M.P.H. (1977-2002)	Professor of Public Health
Seright, Orin D., Ph.D. (1967-1997)	Associate Professor of Linguistics
Settle, Robert B., Ph.D. (1972-1988)	Professor of Marketing
Shackelford, Gordon L., M.S. (1975-2004)	Lecturer in Physics
Sharabi, M. Nazmi, Ph.D. (1981-2004)	Associate Professor of Civil and Environmental Engineering
Sharpe, David M., Ed.D. (1977-2004)	Director, Instructional Technology Services; Senior Vocational Instructor
Shaw, Larry J., Ed.D. (1968-2001)	Professor of Teacher Education
Sheldon, John M., Ed.D. (1962-1997)	Professor of Music
Shepard, David C., Ph.D. (1956-1991)	Professor of Biology
Sheres, Ita G., Ph.D. (1971-2001)	Professor of English and Comparative Literature
Sherr, Steven D., Ph.D. (1969-2003)	Counselor
Sherrard, William R., Ph.D. (1968-2000)	Professor of Information and Decision Systems
Shields, Allan E., Ph.D. (1949-1977, except 1969-1970)	Professor of Philosophy
Shimoguchi, Wayne M., M.L.I.S. (1988-1995)	Senior Assistant Librarian

Shira, Jr., Donald W., M.A.L.S. (1958-1986)	Senior Assistant Librarian
Shirk, Helen Z., M.F.A. (1976-2005)	Professor of Art, Design and Art History
Shively, Martha J., Ph.D. (1978-2003)	Professor of Nursing
Shojai, Donald A., Ph.D. (1971-2002)	Professor of English and Comparative Literature
Shore, Herbert B., Ph.D. (1975-2002)	Professor of Physics
Short, Jr., Donald R., Ph.D. (1969-2001)	Professor of Mathematical and Computer Sciences
Short, James L., Ph.D. (1973-2003)	Professor of Finance
Shutts, William H., Ph.D. (1958-1977)	Professor of Aerospace Engineering
Silverman, Malcolm N., Ph.D. (1975-2004)	Professor of Spanish and Portuguese
Siman, Alan E., Ph.D. (1974-2002)	Associate Professor of Social Work
Skaar, Donald L., M.S. (1960-1981)	Professor of Electrical and Computer Engineering
Sleet, David A., Ph.D. (1974-1997)	Professor of Exercise and Nutritional Sciences and Health Science
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
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
Sowder, Larry K., Ph.D. (1986-2003)	Professor of Mathematics
Sparks, Irving Alan, Ph.D. (1974-1999)	Professor of Religious Studies
Sparrow, Glen W., Ph.D. (1980-2001)	Professor of Public Administration and Urban Studies
Spaulding, Jr., William E., Ph.D. (1970-1985)	Professor of Information Systems
Spencer, Marjorie J., M.A. (1969-1978)	Associate Professor of Art, Imperial Valley Campus
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
Stout, Zoe E., Ph.D. (1965-1977)	Associate Professor of Family Studies and Consumer Sciences
Strand, Marguerite R., Ph.D. (1955-1977)	Counselor; Professor of Secondary Education
Strand, Paul J., Ph.D. (1977-2004)	Professor of Political Science
Stratton, Frank E., Ph.D., Professional Degree in Civil Engineering (1966-1997)	Professor of Civil and Environmental Engineering
Straub, Lura Lynn, M.C.S. (1948-1978)	Professor of Information Systems
Streshly, William A., Ph.D. (1990-2000)	Professor of Administration, Rehabilitation and Postsecondary Education
Strong, Douglas H., Ph.D. (1964-1990)	Professor of History
Stuart, Robert J., Ph.D. (1969-1987)	Professor of Electrical and Computer Engineering
Stutz, Frederick P., Ph.D. (1970-2004)	Professor of Geography
Sucato, Vincent, Ph.D. (1974-2003)	Assistant Professor of Social Work
Sucec, Anthony A., Ed.D. (1967-2001)	Professor of Exercise and Nutritional Sciences
Sullivan, Edward D. S., Ph.D. (1967-1983)	Assistant Professor of English and Comparative Literature
Szabo, Andrew, Ph.D. (1955-1978)	Collection Development Librarian
Talamantes, Florence W., Ph.D. (1962-1992)	Associate Professor of Spanish
Talbert, Freddie D., Ph.D. (1968-2002)	Associate Professor of Astronomy
Taylor, James W., Ph.D. (1950-1980)	Professor of Geography
Taylor, Kenneth M., Ph.D. (1949-1978)	Professor of Biology
Teasdale, John G., Ph.D. (1956-1982)	Professor of Physics
Templin, Jacques D., Ph.D. (1962-1999)	Professor of Physics
Terrell, Louis M., Ph.D. (1969-2003)	Professor of Political Science
Thiel, Donald W., Ph.D. (1957-1986)	Professor of Industrial Studies
Thile, Edmund L., Ph.D. (1967-1998)	Professor of Communicative Disorders
Thomas, Beatrice A., M.A. (1954-1977)	Professor of Nursing
Thompson, Gordon M., Ph.D. (1969-2001)	Associate Dean, College of Education; Associate Professor of Counseling and School Psychology
Thompson, Patrick W., Ed.D. (1990-1999)	Professor of Mathematical and Computer Sciences
Thompson, Willis H., M.A. (1967-1991)	Assistant Professor of Natural Science
Threet, Richard L., Ph.D. (1961-1981)	Professor of Geological Sciences
Thwaites, William M., Ph.D. (1965-1995)	Associate Professor of Biology
Thyagarajan, Kadayam S., Doctorate of Engineering (1980-1999)	Professor of Electrical and Computer Engineering
Tolletsen, Dorothy J., M.A. (1946-1972)	Professor of Physical Education
Toole, Howard R., Ph.D. (1972-2005)	Professor of Accountancy
Tossas, Leila de Irizarry, Ed.D. (1961-1977)	Professor of Elementary Education
Tozer, Lowell, Ph.D. (1954-1986)	Professor of English and Comparative Literature
Troxell, Eugene A., Ph.D. (1966-2000)	Associate Professor of Philosophy
Turner, Marjorie S., Ph.D. (1954-1977)	Professor of Economics
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
Vandenberg, Pieter A., D.B.A. (1969-2004)	Professor of Finance
Vanderbilt, Kermit, Ph.D. (1962-1988)	Professor of English and Comparative Literature
Vanderwood, Paul J., Ph.D. (1969-1994)	Professor of History
Van de Wetering, R. Lee, Ph.D. (1960-1992)	Professor of Mathematical Sciences
Vanier, Dino T., Ph.D. (1970-1998)	Professor of Marketing
Van Sickle, Douglas J., Ph.D. (1978-2004)	Director, Counseling and Psychological Services, Student Affairs; Counselor
Van Steenberg, James F., Ph.D. (1970-1993)	Professor of Biology
Varela-Ibarra, José L., Ph.D. (1976-1991)	Associate Professor of Spanish, Imperial Valley Campus

Emeritus Faculty

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
Ward-Steinman, David, D.M.A. (1961-2003)	Professor of Music
Warren, Edward W., Ph.D. (1963-1990)	Professor of Philosophy and Classics
Warschauer, Thomas M.D., Ph.D. (1977-2005)	Professor of Finance
Watson, Lawrence C., Ph.D. (1967-1992)	Professor of Anthropology
Watson, Maria-Barbara, Ph.D. (1976-2003)	Professor of Women's Studies
Webb, Charles R., Ph.D. (1949-1972, except 1965)	Professor of History
Webb, Charlotte, Ph.D. (1975-2004)	Associate Professor of Linguistics
Wedberg, Hale L., Ph.D. (1959-1983)	Professor of Botany
Weeter, Raymond D., Ph.D. (1966-1991)	Associate Professor of Spanish
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
Wilbur, Robert W., Ph.D. (1974-2004)	Associate Dean for Academic Affairs, College of Business Administration; Associate Professor of Finance
Wilding, John H., Ed.D. (1960-1986)	Professor of Teacher Education
Wilhelm, Betty Jane, M.A. (1961-1980)	Assistant Professor of Physical Education
Williams, Diane R., M.A. (1975-2002)	Associate Professor of Communicative Disorders
Williamson, Gloria R., M.A. (1961-1979)	Associate Professor of Physical Education
Williamson, James E., Ph.D., Certified Public Accountant (1968-2002)	Professor of Accountancy
Willis, George C., M.F.A. (1967-2001)	Associate Professor of Dance
Willis, Winnie O., Sc.D. (1984-2004)	Professor of Public Health
Wilson, Carole, M.L.S. (1981-2003)	Associate Librarian
Wilson, Donald G., Ph.D. (1982-1992) ..	Lecturer in Electrical and Computer Engineering
Wilson, Wilfred J., Ph.D. (1963-1992)	Professor of Biology
Winslow, Robert W., Ph.D. (1965-2000)	Professor of Sociology
Witherspoon, John P., M.A. (1979-1992)	Professor of Telecommunications and Film
Wolter, Gerhard, M.S. (1957-1975)	Professor of Physics
Woo, Catherine Yi-yu Cho, Ed.D. (1970-1997)	Professor of Chinese
Wood, James L., Ph.D. (1975-2004)	Professor of Sociology
Woodson, John H., Ph.D. (1961-1998)	Professor of Chemistry
Wotruba, Thomas R., Ph.D. (1962-2000)	Professor of Marketing
Wozniak, Dolores A., Ed.D. (1976-2004) ..	Dean, College of Health and Human Services; Professor of Nursing
Wright, Penny L., Ph.D. (1972-2002)	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
Yesselman, Charlotte B., Ph.D. (1967-1988)	Professor of Teacher Education
Young, Arthur, Ph.D. (1967-2000)	Professor of Astronomy
Young, Ronald R., Ph.D. (1971-2003)	Associate Professor of Spanish
Zedler, Joy B., Ph.D. (1972-1998)	Professor of Biology
Zedler, Paul H., Ph.D. (1969-1998)	Professor of Biology
Ziegenfuss, George, Ed.D. (1948-1980)	Professor of Physical Education
Zuniga, Maria E., Ph.D. (1985-2002)	Professor of Social Work
Zyskind, Judith W., Ph.D. (1982-2002)	Professor of Biology

Part-Time Faculty 2004–2005

ARTS AND LETTERS

Aguilar, Esther, M.A., Spanish
 Allen, Amy L., M.A., Rhetoric and Writing Studies
 Alonso-Sed, José, Ph.D., Spanish
 Anderson, James T., Ph.D., Philosophy
 Ascanio, Ruben, M.A., Spanish
 Bandini, Martha, M.A., Italian
 Barry, Nelly, M.A., Spanish
 Beasley, Edward J., Ph.D., History
 Becerra, David, M.A., Spanish
 Begler, Elsie B., Ph.D., Arts and Letters, General
 Berger, Amy E., M.A., Arts and Letters, General
 Boeck, Candace, M.A., M.B.A., Rhetoric and Writing Studies
 Boni, Pat, Ph.D., Religious Studies
 Borgen, Linda, M.A., Rhetoric and Writing Studies
 Brennan, James, Ph.D., Economics
 Brush, Barbara, M.A., Rhetoric and Writing Studies
 Bryson, Liane, M.A., Rhetoric and Writing Studies
 Bucky, Marvelyn, M.A., Rhetoric and Writing Studies
 Butler, Maria G., M.A., Chicana and Chicano Studies
 Cao, Zuoya, Ph.D., Chinese
 Carrico, Richard L., M.A., American Indian Studies
 Carter, William L., M.S., Economics
 Castleman, Bruce A., Ph.D., History
 Cavender, Annette, M.A., Rhetoric and Writing Studies
 Chagala, James C., Ph.D., Geography
 Clague, Christopher K., Ph.D., Economics
 Clanton, Gordon, Ph.D., Sociology
 Clark Alfaro, Victor, Ph.D., Arts and Letters, General
 Conway, Fred J., Ph.D., Anthropology
 Costello, Matthew, M.F.A., Rhetoric and Writing Studies
 Coto, Nancy M., M.A., Spanish
 Crawford, Kathleen A., M.A., History
 Croteau, Melissa M., Ph.D., English
 Cummings, Tracy C., M.F.A., English
 Davies-Morris, Gareth N., M.F.A., Humanities
 Davies-Netzey, Sally A.L., Ph.D., Sociology
 Davis, Clara I., M.A., Spanish
 Degueudre, Christian, M.A., Arts and Letters, General; French; Spanish
 Dirige, Ofelia V., Dr.P.H., Asia Pacific Studies
 Edmonds, Jason L., M.F.A., Africana Studies
 Egipto, Rebecca P., M.A., Linguistics
 Elliott, Debra A., M.A., Sociology
 Emery, Laura C., Ph.D., Rhetoric and Writing Studies
 Esposito, John M., M.A., Linguistics
 Featherstone, C. Victoria, M.F.A., English
 Federman, Nancy Jo, Ph.D., Sociology
 Feliu, Augustus C., M.A., Religious Studies
 Fielden, Carl, M.A., Rhetoric and Writing Studies
 Finn, Richard D., M.A., Rhetoric and Writing Studies
 Fish, Hedda, M.A., Rhetoric and Writing Studies
 Flynn, Matthew J., Ph.D., History
 Fox, Jamie, M.A., Rhetoric and Writing Studies
 Frampton, Edith E., Ph.D., English
 Freeman, Roderick A., Ph.D., Philosophy
 Freilicher, Melvyn S., C.Phil., English
 Galbraith, Mary P., Ph.D., English

Garcia-Tannenhause, Nuria, M.A., Spanish
 Gauss, David R., M.A., Sociology
 Gibson, Dewan, M.A., Africana Studies
 Gillman, John L., Ph.D., Religious Studies
 Godjevac, Svetlana, Ph.D., Linguistics
 Goldstein, Elizabeth, M.Div., Religious Studies
 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
 Greb, G. Allen, Ph.D., Political Science
 Guthrie, Wayne L., Ph.D., History
 Guzman, Christine, M.A., German
 Hallett, Melodie J., M.S., Arts and Letters, General
 Harley, Bruce, M.A., M.L.S., Anthropology
 Hay, Jeffrey T., Ph.D., History
 Hepp, Beatrice, M.A., Italian
 Herrick, Samuel F., Ph.D., Economics
 Hoffman, Catherine, M.A., Rhetoric and Writing Studies
 Holslin, Jill M., Ph.D., English
 Ingram, III, James W., M.A., Political Science
 Jacobo, Rodolfo, M.A., Chicana and Chicano Studies
 Jaffe, Maggie S., M.A., M.F.A., English
 Jones-Wagner, Valentina, Ph.D., Arts and Letters, General; European Studies
 Justice, Paul, M.A., Linguistics
 Kehrenberg, Graziella Spinelli, D.L., Italian
 Kelliher, Joseph P., M.A., Spanish
 Kelly, Mary L., Ph.D., Religious Studies; Women's Studies
 Kenway, Christopher, Ph.D., History
 Kilcrease, Melody L., M.A., Rhetoric and Writing Studies
 Kline, Karl, M.F.A., Rhetoric and Writing Studies
 Kosonoy, Beatriz, M.A., Spanish
 Krupa-Kwiatkowski, Magda, Ph.D., Linguistics
 Leak, Jacqueline, Ph.D., Women's Studies
 Lhoest, Laurence, M.A., French
 Lide, Thomas A., M.A., History
 Locklear, Linda R., M.A., M.S., American Indian Studies
 Luvaas, William H., M.F.A., English
 Macias, Georgina, M.A., Spanish
 Mack, James B., Ph.D., Rhetoric and Writing Studies
 Mackey, Linda C., J.D., Women's Studies
 Maggio, Virginia M., M.A., Rhetoric and Writing Studies
 Mahdavi-Izadi, Farid, Ph.D., History
 Maier, Elizabeth, Ph.D., Arts and Letters, General
 Manley, Peter, M.F.A., Rhetoric and Writing Studies
 Martin, Stephen-Paul H., Ph.D., English
 Martinez, Alexander D., M.A., Chicana and Chicano Studies
 McKanna, Jr., Clare V., Ph.D., 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

Miller, Joan T., M.A., Anthropology
 Minard, Antone, Ph.D., English
 Miquel, Florence, M.A., French
 Moorin, Albert, Ph.D., Rhetoric and Writing Studies
 Mueller, Howard R., Ph.D., Religious Studies
 Murillo, Hugo, Ph.D., Arts and Letters, General
 Nericcio, Rosalinda F., M.A., Spanish
 Nishimura, Alexander, M.A., French
 Nobilette, Frank, Ph.D., History
 Oh-Surh, Helen R., M.A., Sociology
 Orlov, Alina, Ph.D., Russian
 Osborn, Alan R., Ph.D., Geography
 Overton, James A., M.A., Religious Studies
 Ozawa, Rie, M.A., Japanese
 Pak, Victoria L., M.A., M.S., Arts and Letters, General
 Pedroza, José Carlos, M.A., Spanish
 Penafuerte, Araceli S., Ph.D., Philosophy
 Pont Alguade, Josefina, M.A., Arts and Letters, General
 Potts, Stephen W., Ph.D., English
 Putko, Carole A., Ph.D., History
 Putris, Baida, M.A., Arabic
 Quan, Nghiep C., M.A., Rhetoric and Writing Studies
 Ransom, Holly E., C.Phil., French
 Reddick, Bonnie, M.A., Africana Studies
 Regan, Maria Dolores, M.B.A., Spanish
 Renner, Lynette E., M.A., Rhetoric and Writing Studies
 Reyes, Herminia V., M.A., Philosophy
 Richardson, Diana G., M.A., Geography
 Richardson, Mary, M.A., Linguistics
 Richey, Carolyn L., M.A., English
 Riggs, Dawn, Ph.D., History
 Rissolo, Dominique, Ph.D., Anthropology
 Robbins, Brett, Ph.D., Classics
 Rockland, Steven G., M.A., M.S., Economics
 Rodriguez, Barbara, Ph.D., Spanish
 Rohrbaugh, Karen, M.S., Arts and Letters, General
 Rowden, Tonita H., M.A., English
 Roy, Carolyn S., C.Phil., History
 Ruggeri, Rosamaria, M.A., European Studies
 Russ, John, M.B.A., Economics
 Sadegholvad, Ellie, M.A., German; Persian
 San Juan, Joel H., M.A., Sociology
 Schlereth, Stephen P., Ph.D., Religious Studies; Sociology
 Schlesinger, Steven A., M.A., Philosophy
 Semm, Paul T., M.A., Sociology
 Shabatay, Yehuda, D.M.L., Religious Studies
 Shaver, Barbara M., Ph.D., Women's Studies
 Shenoy, Vasanthi, Ph.D., Asia Pacific Studies; Sociology
 Sherman, Beth, M.A., Rhetoric and Writing Studies
 Shumate, Kathleen R., M.F.A., English
 Shuster, Alana, M.A., Hebrew
 Sigmon, Celia, M.F.A., Rhetoric and Writing Studies
 Speckmann, Nancy, M.A., Political Science
 Stoddard, Michael Mathis, Ph.D., Political Science
 Sullivan, Julie A., M.A., Political Science
 Swayd, Samy S., Ph.D., Religious Studies
 Sylvers, Josephine, M.A., Italian
 Taylor, Seth, M.A., Rhetoric and Writing Studies

Thomas, Jesse J., Ph.D., Religious Studies
 Thompson, Cara, M.A., Rhetoric and Writing Studies
 Thompson, Mary J., M.A., Rhetoric and Writing Studies
 Thorngren, Jane R., Ph.D., Geography
 Tipton, Jr., Norman E., J.D., Sociology
 Towner, James, M.A., Rhetoric and Writing Studies
 Trujillo, Angelina, Arts and Letters, General
 Velasco, Alfredo F., Ph.D., Chicana and Chicano Studies
 Vetter, Molly E., M.Div., Religious Studies
 Werner, Roland, Ph.D., Sociology
 White, Margaret G., Ph.D., History
 Wildes, Fred T., Ph.D., Geography
 Williams, Julie, M.A., Rhetoric and Writing Studies
 Wilson, Erwin, M.A., French
 Wittenborn, Allen, Ph.D., Asia Pacific Studies; History
 Wong, Amy C., M.A., Sociology
 Yamaga, Hideko, M.A., Japanese
 Yang, Yi (Edward), Ph.D., Political Science
 Yursa, John M., Ph.D., History

BUSINESS ADMINISTRATION

Bateman, Giles H., M.B.A., Management
 Brown, Roger J., Ph.D., Finance
 Cooper, John, M.S., Accountancy
 Conforth, Brian, Ph.D., Management
 Cunningham, Michael R., M.A., Management
 Dalbey, Richard O., Ph.D., Information and Decision Systems
 Danks, George K., Ph.D., Management
 English, Richard J., M.S., Marketing
 Fuller, Robert L., M.B.A., 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
 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
 Nicholson, Mark E., Psy.D., Management
 Pawar, Anil, Ph.D., Finance
 Robbins, Blue, Ed.D., Management
 Ryan, Frank, M.S., Finance
 Sannwald, William W., M.A., Management; Marketing
 Senturia, Neil, M.A., Management
 Shaul, Kelly, J.D., Information and Decision Systems
 Sipp, Maureen K., M.A., Information and Decision Systems
 Wasson, Dick, M.B.A., Accountancy

EDUCATION

Aceves, Edward, Ph.D., Policy Studies in Language and Cross-Cultural Education
 Aganza, Joaquin, M.S., Counseling and School Psychology
 Anderson, Barry C., M.A., Teacher Education
 Aste, Mirian K., M.A., Policy Studies in Language and Cross-Cultural Education; Teacher Education
 Avant, Bobby J., M.S., Educational Leadership
 Barnes, Stephen F., Ph.D., Administration, Rehabilitation and Postsecondary Education
 Bjornson, Patricia J., M.A., Teacher Education
 Bloomberg, Leila A., M.A., Teacher Education
 Bowen, Karen, M.A., Teacher Education

Brand, Edward M., Ed.D., Educational Leadership
 Braun-Harvey, Douglas, M.A., Counseling and School Psychology
 Calderon, Martha, M.A., Special Education
 Callies, Anne M., M.A., Special Education
 Cameron, George, Ph.D., Educational Leadership
 Casares, Sandra A., B.A., Policy Studies in Language and Cross-Cultural Education
 Clark, Nelwyn, M.S., Counseling and School Psychology
 Collins-Parks, Tamara, M.A., Policy Studies in Language and Cross-Cultural Education
 Cornell, Marilyn, M.S., Counseling and School Psychology
 Cunningham, Rodger, M.S., Teacher Education
 Curiel, Marco A., M.A., Policy Studies in Language and Cross-Cultural Education
 Davies, Aida D., M.A., Policy Studies in Language and Cross-Cultural Education
 Dean, Margene, Ed.D., Educational Leadership
 Debol, Martha, M.A., Special Education
 Del Busto, Roberto, M.A., Educational Technology
 Dieckmann, James, M.L.S., Educational Technology
 Dragon, Barry S., B.S., Educational Leadership
 Enriquez, Manuel, M.P.A., Administration, Rehabilitation and Postsecondary Education
 Escobedo, Francisco, M.A., Educational Leadership
 Fitch, Suzanne, Ed.D., Special Education
 Flood, Sharon R., Ed.D., Teacher Education
 Fulcher, Joe, Ph.D., Special Education
 Gray, Susan P., M.A., Educational Leadership
 Guillermo, Maribel, Ed.D., Administration, Rehabilitation and Postsecondary Education
 Gunst, Rosemary, B.S., Teacher Education
 Herman, Ernestine M., M.A., Policy Studies in Language and Cross-Cultural Education
 Hess, Shelly, M.A., Administration, Rehabilitation and Postsecondary Education
 Hicks, Tom, Ph.D., Counseling and School Psychology
 Hobbs, Marge, Ed.D., Educational Leadership
 Holowach, Kathleen, M.A., Special Education; Teacher Education
 James, Helen F., Ed.D., Teacher Education
 Jones, Edward C., M.S., Administration, Rehabilitation and Postsecondary Education
 Kasendorf, Stacey, M.A., Special Education
 Kellett, Susan, M.A., Special Education
 Kemp, Donald J., Ph.D., Educational Leadership
 Kopenski, Donna, Ph.D., Teacher Education
 Lagerquist, Linnea, M.A., Policy Studies in Language and Cross-Cultural Education
 Lancaster, Nancy R., M.Ed., Teacher Education
 Lei, Wei-lin, Ph.D., Policy Studies in Language and Cross-Cultural Education
 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
 Llerandi, Julian, M.A., Policy Studies in Language and Cross-Cultural Education
 Logsdon, John W., M.A., Teacher Education
 Manderson, Carole J., M.A., Teacher Education
 Marotta, Antonio, Ph.D., Counseling and School Psychology
 Marshall, James M., Ph.D., Educational Technology
 Martin, Melinda M., M.A., Teacher Education
 McClure, Melinda K., M.A., Special Education
 McLean, Deborah, M.A., Special Education

McMillan, Kris W., M.A., Teacher Education
 Mendoza, Joseph, B.A., Counseling and School Psychology
 Merlos, Ramon L., Ph.D., Policy Studies in Language and Cross-Cultural Education
 Middleton, Loretta, M.A., Counseling and School Psychology
 Montierth, Jacquelyn, M.A., Educational Technology
 Mora, Jorge, M.A., Educational Technology
 Morales Hoffman, Lydia E., M.A., Policy Studies in Language and Cross-Cultural Education
 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
 Perlin, Robyn, M.A., Educational Leadership
 Pringle, Tawnya, M.S., Counseling and School Psychology
 Prodor, Catherine, M.A., Special Education
 Pulido, James M., Ph.D., Special Education
 Ramirez, Celia A., Ph.D., Educational Leadership; Policy Studies in Language and Cross-Cultural Education
 Rider, Diane K., M.A., Policy Studies in Language and Cross-Cultural Education
 Robersshaw, 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
 Serban, Deborah, M.S., Administration, Rehabilitation and Postsecondary Education
 Siegfried, Thomas L., M.S., Administration, Rehabilitation and Postsecondary Education
 Sinclair, Stacey, Ph.D., Counseling and School Psychology
 Smith, Brian, M.A., Educational Leadership
 Smith, Craig R., Ph.D., Counseling and School Psychology
 Smith, Elinor R., M.A., Special Education
 Sparaco, Lisa M., Ph.D., Policy Studies in Language and Cross-Cultural Education
 Taylor, Margo, Ph.D., Policy Studies in Language and Cross-Cultural Education
 Taylor, Mary M., M.Ed., Special Education
 Treger, Rochelle D., Ph.D., Teacher Education
 Tremaine, Claire D., Ph.D., Teacher Education
 Tucker, Mark, M.S., Administration, Rehabilitation and Postsecondary Education
 Turner, Thomas, M.S., Administration, Rehabilitation and Postsecondary Education
 Valdivia, Rebeca, Ph.D., Special Education
 Van Dyke, Janice, Ph.D., Teacher Education
 Warne, Jim E., M.S., Administration, Rehabilitation and Postsecondary Education

Weiss, Roberto, M.A., Counseling and School Psychology
Whelan, Winifred, Ph.D., Policy Studies in Language and Cross-Cultural Education
Whiteside, Hilary, M.A., Special Education
Wiedre, Howard M., Ph.D., Special Education
Wong-Kerberg, Linda, M.S., Counseling and School Psychology

ENGINEERING

Badkoobehi, Hassan, Ph.D., Civil and Environmental Engineering
Bakhru, Keshoolal, Ph.D., Electrical and Computer Engineering
Bernath, Brett A., M.S., Electrical and Computer Engineering
Butler, Geoffrey S., M.S., Aerospace Engineering and Engineering Mechanics
Can, Zehra S., Ph.D., Civil and Environmental Engineering
Cawley, Nancy, Ph.D., Aerospace Engineering and Engineering Mechanics
de Ruyter, Anthony J., M.A., Mechanical Engineering
Dhingra, Kailash C., Ph.D., Electrical and Computer Engineering
Dowell, Robert, Ph.D., Civil and Environmental Engineering
Ganti, Nagaraj, M.S., Electrical and Computer Engineering
Garcia, Adrian, B.S.M.E., Mechanical Engineering
Harrington, Steven, Ph.D., Aerospace Engineering and Engineering Mechanics
Hixson, Jeffrey, B.S.M.E., Mechanical Engineering
Johnston, Thomas H., M.A., Mechanical Engineering
Kennedy, John, M.S., Electrical and Computer Engineering
Khawaja, Ziauddin, Ph.D., Electrical and Computer Engineering
LaVere, Kenneth A., B.S., Mechanical Engineering
Lockwood, Paul, M.S.E.E., Electrical and Computer Engineering
Phillips, David B., Ph.D., Electrical and Computer Engineering
Rodgers, John Scott, Ph.D., Electrical and Computer Engineering
Tedesco, Carl, M.S., Aerospace Engineering and Engineering Mechanics
Urquhart, Bruce C., B.A., Civil and Environmental Engineering
Williams, Wayne T., Ph.D., Civil and Environmental Engineering
Wright, Craig A., B.S.M.E., Mechanical Engineering

HEALTH AND HUMAN SERVICES

Adler, Jacqueline B., M.A., Speech, Language, and Hearing Sciences
Anguera, Joaquin, Ph.D., Gerontology
Arnett, Dixon, B.A., Gerontology
Bass, Susan, M.S.N., Nursing
Bidwell, Janice D., M.N., Nursing
Blackford, Judy K., M.S.N., Nursing
Boothroyd, Arthur, Ph.D., Speech, Language, and Hearing Sciences
Borntreger, Denise E., B.S., Public Health
Branch, Carol A., M.A., Speech, Language, and Hearing Sciences
Bray, Robert L., Ph.D., Social Work
Bruner, Joan S., M.S.W., Social Work

Burns, Della, M.N., Nursing
Carlson, Beverly M., M.S.N., Nursing
Chase, Renata S., M.S.W., Social Work
Clark, Gail E., Ph.D., Nursing
Coffin-Romig, Nancy, D.N.Sc., Nursing
Conway, Terry L., Ph.D., Public Health
Dixon, Joyce, M.S.N., Nursing
Dodd-Butera, Teresa, M.S., Public Health
Dublin, Penny, M.S.Ed., M.S.W., Social Work
Durham, Steven W., M.P.H., Public Health
Engelberg, Moshe, Ph.D., Public Health
Esernia, Joyce S., M.S.N., Nursing
Faron, Susan, M.S., Nursing
Ferran, Karen L., Ph.D., Public Health
Fischer, Marlowe K., M.A., Speech, Language, and Hearing Sciences
Fleming, Regina, M.D., Public Health
Fong, Terri A., M.S.W., Social Work
Golden, Lauren J., M.S.W., Social Work
Green, Gina, Ph.D., Public Health
Gresham, Louise S., Ph.D., Public Health
Herold, Geri R., M.S.N., Nursing
Ingrum, David A., M.D., Public Health
Kassem, Nada O., Dr.P.H., Public Health
Katzman, Jodi S., M.S.N., Nursing
Kohlbray, 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
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 Ellen, M.S.N., Nursing
Milstein, Marjorie F., M.S.W., Social Work
Mulvihill, Mary M., Ph.D., Public Health
Ngo-Nguyen, Phuong-Lien, M.S.N., Nursing
Osuyos, Roberta A., M.S.W., Social Work
Ottum, Regina M., M.S.N., Nursing
Pierce, Edward C., M.S.W., Social Work
Preston, Patricia T., M.S.N., Nursing
Ramage, Amy E., Ph.D., Speech, Language, and Hearing Sciences
Rapps, Jane A., D.N.Sc., Nursing
Reyes, Maria L.F., M.D., Public Health
Reyno, JoAnne, M.S.N., Nursing
Rodriguez-Lainz, Alfonso, Ph.D., Public Health
Roth-Abramson, Carole R., Ph.D., Speech, Language, and Hearing Sciences
Rowe, Linda J., Ph.D., Speech, Language, and Hearing Sciences
Samad, Ruth, Ph.D., Health and Human Services, General; Nursing
Santarsiero, Catherine H., M.S.N., Nursing
Schmidt, Terry, D.H.A., Public Health
Segars, Lance B., Ph.D., Social Work
Stewart, Caroline R., M.S.W., Social Work
Struxness, Kevin R., M.A., Speech, Language, and Hearing Sciences
Trocha, Paul J., Ph.D., Public Health
Waalen, Jill M., M.D., Public Health
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, Sherryll, M.S.N., Nursing
Zians, James K., M.A., Public Health

PROFESSIONAL STUDIES AND FINE ARTS

Adame, Angel, M.F.A., Art, Design and Art History
Amstutz, Dean, B.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
Atwater, Judy L., B.A., Art, Design and Art History
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